

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 03, 2019

Jeremy Pike

LT Environmental, Inc.

4600 West 60th Avenue

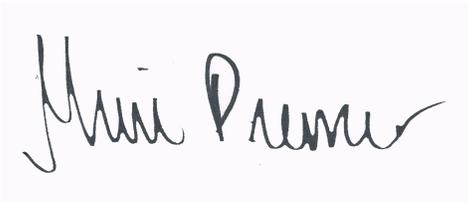
Arvada, CO 80003

RE: AEF 4-62-33 CPF NWNW

Work Order # 1905288

Enclosed are the results of analyses for samples received by Summit Scientific on 05/24/19 17:15. 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: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@0"-6"	1905288-01	Soil	05/24/19 12:25	05/24/19 17:15
SS01@18"-24"	1905288-02	Soil	05/24/19 12:25	05/24/19 17:15
SS02@0"-6"	1905288-03	Soil	05/24/19 12:35	05/24/19 17:15
SS02@18"-24"	1905288-04	Soil	05/24/19 12:35	05/24/19 17:15
SS03@0"-6"	1905288-05	Soil	05/24/19 12:45	05/24/19 17:15
SS03@18"-24"	1905288-06	Soil	05/24/19 12:45	05/24/19 17:15

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1905288

Summit Scientific

S₂

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: AEF 4-62-33 CPF NWNW
Sampler Name:	Project Number: 027318130

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEX	TPH-DRO							
1	SS01@0"-6"	5/24/19	1225	1			x			x				x	x						
2	SS01@18"-24"		1225	1			x			x				x	x						
3	SS02@0"-6"		1233	1			x			x				x	x						
4	SS02@18"-24"		1235	1			x			x				x	x						
5	SS03@0"-6"		1245	1			x			x				x	x						
6	SS03@18"-24"		1245	1			x			x				x	x						
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)
	5/24/19 17:15		5-24-19 17:15	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:
				Temperature Upon Receipt: 11.1°
				Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No

Sample Receipt Checklist

S2 Work Order 1905288

Client: LTE Client Project ID: AEF 4-62-33 CPF NWNW

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>11.1°</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.	✓			on ice
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

AT
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

5-24-19, 17:15
Date/Time



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

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

SS01@0"-6"
1905288-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1905353	05/28/19	05/28/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1905356	05/28/19	05/29/19	EPA 8015M	

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

Summit Scientific

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

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

SS01@18"-24"
1905288-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1905353	05/28/19	05/29/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1905356	05/28/19	05/29/19	EPA 8015M	

Date Sampled: **05/24/19 12:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		98.8 %	30-150		"	"	"	"	

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

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

SS02@0"-6"
1905288-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1905353	05/28/19	05/29/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1905356	05/28/19	05/29/19	EPA 8015M	

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

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LT Environmental, Inc.
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Arvada CO, 80003

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

SS02@18"-24"
1905288-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1905353	05/28/19	05/29/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		97.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1905356	05/28/19	05/29/19	EPA 8015M	

Date Sampled: **05/24/19 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

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Arvada CO, 80003

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

SS03@0''-6''
1905288-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1905353	05/28/19	05/29/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		97.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1905356	05/28/19	05/29/19	EPA 8015M	

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		93.7 %	30-150		"	"	"	"	

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4600 West 60th Avenue
Arvada CO, 80003

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

SS03@18"-24"
1905288-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1905353	05/28/19	05/29/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		98.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1905356	05/28/19	05/29/19	EPA 8015M	

Date Sampled: **05/24/19 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		98.7 %	30-150		"	"	"	"	

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

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

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 1905353 - EPA 5030 Soil MS

Blank (1905353-BLK1)

Prepared & Analyzed: 05/28/19

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	0.0368		"	0.0400		92.0		23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.7		20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.0		21-167			

LCS (1905353-BS1)

Prepared & Analyzed: 05/28/19

Benzene	0.0951	0.0020	mg/kg	0.100		95.1		70-130			
Toluene	0.0957	0.0050	"	0.100		95.7		70-130			
Ethylbenzene	0.0818	0.0050	"	0.100		81.8		70-130			
m,p-Xylene	0.168	0.010	"	0.200		83.9		70-130			
o-Xylene	0.0843	0.0050	"	0.100		84.3		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0358		"	0.0400		89.4		23-173			
Surrogate: Toluene-d8	0.0463		"	0.0400		116		20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		90.9		21-167			

Matrix Spike (1905353-MS1)

Source: 1905288-01

Prepared & Analyzed: 05/28/19

Benzene	0.108	0.0020	mg/kg	0.100	ND	108		70-130			
Toluene	0.115	0.0050	"	0.100	ND	115		70-130			
Ethylbenzene	0.110	0.0050	"	0.100	ND	110		70-130			
m,p-Xylene	0.221	0.010	"	0.200	ND	111		70-130			
o-Xylene	0.111	0.0050	"	0.100	ND	111		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.6		23-173			
Surrogate: Toluene-d8	0.0425		"	0.0400		106		20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.3		21-167			

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Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

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 1905353 - EPA 5030 Soil MS

Matrix Spike Dup (1905353-MSD1)	Source: 1905288-01			Prepared & Analyzed: 05/28/19						
Benzene	0.118	0.0020	mg/kg	0.100	ND	118	70-130	8.53	30	
Toluene	0.124	0.0050	"	0.100	ND	124	70-130	6.88	30	
Ethylbenzene	0.122	0.0050	"	0.100	ND	122	70-130	9.81	30	
m,p-Xylene	0.245	0.010	"	0.200	ND	122	70-130	10.1	30	
o-Xylene	0.124	0.0050	"	0.100	ND	124	70-130	11.1	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0399</i>		<i>"</i>	<i>0.0400</i>		<i>99.7</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0410</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0369</i>		<i>"</i>	<i>0.0400</i>		<i>92.2</i>	<i>21-167</i>			

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

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
 Project Manager: Jeremy Pike

Reported:
 06/03/19 12:44

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 1905356 - EPA 3550A

Blank (1905356-BLK1)

Prepared: 05/28/19 Analyzed: 05/29/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1905356-BS1)

Prepared: 05/28/19 Analyzed: 05/29/19

C10-C28 (DRO) 554 50 mg/kg 500 111 70-130

Matrix Spike (1905356-MS1)

Source: 1905288-01

Prepared: 05/28/19 Analyzed: 05/29/19

C10-C28 (DRO) 549 50 mg/kg 500 19.5 106 70-130

Matrix Spike Dup (1905356-MSD1)

Source: 1905288-01

Prepared: 05/28/19 Analyzed: 05/29/19

C10-C28 (DRO) 572 50 mg/kg 500 19.5 111 70-130 4.22 20

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

Project: AEF 4-62-33 CPF NWNW

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
06/03/19 12:44

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