

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 31, 2019

Jeremy Pike

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: Vic 1

Work Order # 1907354

Enclosed are the results of analyses for samples received by Summit Scientific on 07/30/19 14:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury For Ben Shrewsbury

Laboratory Manager



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

Project: Vic 1

Project Number: 027318139
Project Manager: Jeremy Pike

Reported:
07/31/19 06:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS08@22'	1907354-01	Soil	07/30/19 10:00	07/30/19 14:30
SS09@17'	1907354-02	Soil	07/30/19 13:00	07/30/19 14:30

Summit Scientific

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S₂

1907354

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: LT environmental inc

Project Manager: Jeremy Pike

Address: 4600 W 60th Ave

E-Mail: jpike@ltenv.com

City/State/Zip: arvada CO 80003

Phone: 303-433-9788

Project Name: VIC 1

Sampler Name: Drew Bullinger

Project Number: 027318139

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	G	BTEX	TPH	DRO							
1	SS08 @ 22'	7/30/19	10:00	2			X			X				X	X								
2	SS09 @ 17'	7/30/19	13:00	2			X			X				X	X								
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
Drew Bullinger	7/30/19 14:30		7-30-19 14:30	Same Day	X 72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours		
				Sample Integrity:		
				Temperature Upon Receipt:		3.5
				Samples Intact:		Yes No

Sample Receipt Checklist

S2 Work Order 1907354

Client: LT Environmental Client Project ID: Vic 1

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

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

Temp (°C)	3.5
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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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same Day TAT
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

7/30/19
Date/Time



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

Project: Vic 1
Project Number: 027318139
Project Manager: Jeremy Pike

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07/31/19 06:13

SS08@22'
1907354-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1907417	07/30/19	07/30/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		75.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1907403	07/30/19	07/30/19	EPA 8015M	

Date Sampled: **07/30/19 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

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Project Manager: Jeremy Pike

Reported:
07/31/19 06:13

SS09@17'
1907354-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	0.0099	0.0020	mg/kg	1	1907417	07/30/19	07/30/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.017	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		54.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1907403	07/30/19	07/30/19	EPA 8015M	

Date Sampled: **07/30/19 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

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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 1907417 - EPA 5030 Soil MS

Blank (1907417-BLK1)

Prepared: 07/30/19 Analyzed: 07/31/19

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	0.0236		"	0.0400		59.0	23-173			
Surrogate: Toluene-d8	0.0356		"	0.0400		89.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0356		"	0.0400		89.1	21-167			

LCS (1907417-BS1)

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	0.0791	0.0020	mg/kg	0.100		79.1	70-130			
Toluene	0.0841	0.0050	"	0.100		84.1	70-130			
Ethylbenzene	0.112	0.0050	"	0.100		112	70-130			
m,p-Xylene	0.233	0.010	"	0.200		117	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0252		"	0.0400		62.9	23-173			
Surrogate: Toluene-d8	0.0368		"	0.0400		92.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		90.9	21-167			

Matrix Spike (1907417-MS1)

Source: 1907354-01

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	0.0794	0.0020	mg/kg	0.100	ND	79.4	70-130			
Toluene	0.0856	0.0050	"	0.100	ND	85.6	70-130			
Ethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130			
m,p-Xylene	0.231	0.010	"	0.200	ND	115	70-130			
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0246		"	0.0400		61.4	23-173			
Surrogate: Toluene-d8	0.0371		"	0.0400		92.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0361		"	0.0400		90.2	21-167			

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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 1907417 - EPA 5030 Soil MS

Matrix Spike Dup (1907417-MSD1)

Source: 1907354-01

Prepared: 07/30/19 Analyzed: 07/31/19

Benzene	0.0810	0.0020	mg/kg	0.100	ND	81.0	70-130	1.98	30	
Toluene	0.0873	0.0050	"	0.100	ND	87.3	70-130	1.94	30	
Ethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130	2.00	30	
m,p-Xylene	0.226	0.010	"	0.200	ND	113	70-130	2.14	30	
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130	0.120	30	
Surrogate: 1,2-Dichloroethane-d4	0.0271		"	0.0400		67.6	23-173			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0356		"	0.0400		89.0	21-167			

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1907403 - EPA 3550A

Blank (1907403-BLK1)

Prepared & Analyzed: 07/30/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1907403-BS1)

Prepared & Analyzed: 07/30/19

C10-C28 (DRO) 545 50 mg/kg 500 109 70-130

Matrix Spike (1907403-MS1)

Source: 1907354-01

Prepared & Analyzed: 07/30/19

C10-C28 (DRO) 572 50 mg/kg 500 34.7 107 70-130

Matrix Spike Dup (1907403-MSD1)

Source: 1907354-01

Prepared: 07/30/19 Analyzed: 07/31/19

C10-C28 (DRO) 573 50 mg/kg 500 34.7 108 70-130 0.177 20

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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