

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 05, 2018

Jeremy Pike
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: Reservoir Federal #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/28/18 16:25. 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 Ben Shrewsbury
Laboratory Manager



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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1809430-01	Water	09/26/18 15:15	09/28/18 16:25
MW02	1809430-02	Water	09/26/18 16:30	09/28/18 16:25
MW03	1809430-03	Water	09/26/18 13:25	09/28/18 16:25
MW04	1809430-04	Water	09/26/18 14:40	09/28/18 16:25
MW05	1809430-05	Water	09/26/18 15:30	09/28/18 16:25
MW06	1809430-06	Water	09/26/18 12:15	09/28/18 16:25
MW07	1809430-07	Water	09/26/18 15:00	09/28/18 16:25
MW08	1809430-08	Water	09/26/18 13:40	09/28/18 16:25
MW09	1809430-09	Water	09/26/18 12:45	09/28/18 16:25
MW10	1809430-10	Water	09/26/18 14:15	09/28/18 16:25

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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.

Summit Scientific

1809430

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Client: LT Environmental, Inc.

Address: 4600 W. 60th Ave.

City/State/Zip: Arvada, Colorado 80003

Phone: 303-433-9788 Fax:

Sampler Name: KAYLA WILTE

Project Manager: Jeremy Pike

E-Mail: jpike@ltenv.com, rebel@ltenv.com

Project Name: Reservoir Federal #1

Project Number: 027317021

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Other (Specify)	Analyze For:	Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil			
MW01	9-26-18	1515	3			X		X				
MW02		1430				X		X				
MW03		1325				X		X				
MW04		1440				X		X				
MW05		1530				X		X				
MW06		1215				X		X				
MW07		1500				X		X				
MW08		1340				X		X				
MW09		1245				X		X				
MW10		1415				X		X				
Relinquished by: <u>Kimberly White</u> Date/Time: <u>9/27/18 1810</u> Received by: <u>gmg</u> Date/Time: <u>9/27/18 1810</u> Turn Around Time (Check) <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard Notes:												
Relinquished by: <u>gmg</u> Date/Time: <u>9/28/18 1625</u> Received by: <u>gmg</u> Date/Time: <u>9/28/18 1625</u> Turn Around Time (Check) <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard Notes:												
Relinquished by: <u>gmg</u> Date/Time: <u>9/28/18 1625</u> Received by: <u>gmg</u> Date/Time: <u>9/28/18 1625</u> Turn Around Time (Check) <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard Notes:												

Sample Receipt Checklist

S2 Work Order 1809430

Client: LT ENV Client Project ID: RESERVOIR PED

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

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

Temp (°C)	8.1
-----------	-----

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

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

Muri
Custodian Printed Name or Initials

MS 9-28-18
Signature of Custodian

18:10
Date/Time



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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW01
1809430-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **09/26/18 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		96.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.9 %		21-167		"	"	"	"	

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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW02
1809430-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 16:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 16:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.5 %	21-167		"	"	"	"	

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LT Environmental, Inc.
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Arvada CO, 80003

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW03
1809430-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	1000	100	ug/l	100	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	3000	200	"	100	"	"	"	"	

Date Sampled: **09/26/18 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

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Arvada CO, 80003

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW04
1809430-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 14:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 14:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	21-167		"	"	"	"	

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Arvada CO, 80003

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW05
1809430-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.9 %	21-167		"	"	"	"	

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Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW06
1809430-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.3 %	21-167		"	"	"	"	

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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW07
1809430-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.8 %	21-167		"	"	"	"	

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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW08
1809430-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW09
1809430-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 12:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 12:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.7 %	21-167		"	"	"	"	

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

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

MW10
1809430-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/18 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1810021	10/01/18	10/02/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **09/26/18 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.8 %	21-167		"	"	"	"	

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4600 West 60th Avenue
Arvada CO, 80003

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch 1810021 - EPA 5030 Water MS

Blank (1810021-BLK1)

Prepared: 10/01/18 Analyzed: 10/02/18

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.2		104	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		99.3	20-170			
Surrogate: 4-Bromofluorobenzene	12.3		"	13.3		92.6	21-167			

LCS (1810021-BS1)

Prepared: 10/01/18 Analyzed: 10/02/18

Benzene	26.6	1.0	ug/l	33.3		79.8	70-130			
Toluene	29.3	1.0	"	33.3		87.9	70-130			
Ethylbenzene	29.1	1.0	"	33.3		87.2	70-130			
m,p-Xylene	60.0	2.0	"	66.7		89.9	70-130			
o-Xylene	29.6	1.0	"	33.3		88.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.2		99.3	23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.1	21-167			

Matrix Spike (1810021-MS1)

Source: 1809430-01

Prepared: 10/01/18 Analyzed: 10/02/18

Benzene	29.9	1.0	ug/l	33.3	ND	89.6	70-130			
Toluene	32.6	1.0	"	33.3	ND	97.7	70-130			
Ethylbenzene	33.8	1.0	"	33.3	ND	102	70-130			
m,p-Xylene	69.9	2.0	"	66.7	ND	105	70-130			
o-Xylene	34.4	1.0	"	33.3	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.2		99.2	23-173			
Surrogate: Toluene-d8	13.3		"	13.3		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	21-167			

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4600 West 60th Avenue
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Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

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 1810021 - EPA 5030 Water MS

Matrix Spike Dup (1810021-MSD1)		Source: 1809430-01			Prepared: 10/01/18 Analyzed: 10/02/18					
Benzene	30.4	1.0	ug/l	33.3	ND	91.3	70-130	1.86	30	
Toluene	33.7	1.0	"	33.3	ND	101	70-130	3.41	30	
Ethylbenzene	35.7	1.0	"	33.3	ND	107	70-130	5.32	30	
m,p-Xylene	73.2	2.0	"	66.7	ND	110	70-130	4.58	30	
o-Xylene	36.5	1.0	"	33.3	ND	109	70-130	5.70	30	
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.2		101	23-173			
Surrogate: Toluene-d8	12.8		"	13.3		96.2	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.2	21-167			

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4600 West 60th Avenue
Arvada CO, 80003

Project: Reservoir Federal #1

Project Number: 027317021
Project Manager: Jeremy Pike

Reported:
10/05/18 07:15

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