

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 25, 2016

Brett Forkner  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: MA-5-7-6H Preset

Enclosed are the results of analyses for samples received by Summit Scientific on 08/19/16 17:20. 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  
President



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

Project: MA-5-7-6H Preset

Project Number: 065815003  
Project Manager: Brett Forkner

**Reported:**  
08/25/16 09:23

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MA-5-7-6H-CB	1608154-01	Soil	08/19/16 07:00	08/19/16 17:20

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.*

A handwritten signature in black ink, appearing to be 'MSM'.



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

Project: MA-5-7-6H Preset

Project Number: 065815003  
Project Manager: Brett Forkner

Reported:  
08/25/16 09:23

# Summit Scientific 1608154

S<sub>2</sub>

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

Page 1 of 1

Client: LTE Project Manager: Brett Forkner  
Address: 4600 W 60th Ave E-Mail: bforkner@lte.com  
City/State/Zip: Arvada CO  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Project Name: MA-5-7-6H Preset  
Sampler Name: John Maaty Project Number: 065815003.0002

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions
					HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	COGCL MBL	COGCL MBL	COGCL MBL	COGCL MBL	
1	MA-5-7-6H-CIS	8/19/16	0700	2			X			X							COGCL MBL 710-1 MENDUS BODEN MENDUS PAH'S
2																	X
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Relinquished by: <u>BH</u>	Date/Time: <u>8/19/16 1610</u>	Received by: <u>MA</u>	Date/Time: <u>8/19/16 1610</u>	Turn Around Time (Check)	Notes:  <u>on ice</u>
Relinquished by: <u>MA</u>	Date/Time: <u>8/19/16 1720</u>	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 hours <input checked="" type="checkbox"/>	
				24 hours <input type="checkbox"/> Standard <input type="checkbox"/>	
				48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: <u>5.1°C</u>	
				Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

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

Project: MA-5-7-6H Preset

Project Number: 065815003  
Project Manager: Brett Forkner

Reported:  
08/25/16 09:23

### Sample Receipt Checklist

S2 Work Order: 1608154

Client: LTE

Client Project ID: MA-5-7-6H Preset

Shipped Via: DLV

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: \_\_\_\_\_

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

Cooler ID					
Temp (°C)	5.1				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs 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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<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) <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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 <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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):				

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

Nakita  
Custodian Printed Name

[Signature]  
Signature or Initials of Custodian

8/19/16 1720  
Date/Time



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

Project: MA-5-7-6H Preset  
Project Number: 065815003  
Project Manager: Brett Forkner

**Reported:**  
08/25/16 09:23

**MA-5-7-6H-CB  
1608154-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1608206	08/19/16	08/19/16	8015M	

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.5 %	70-130		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1608205	08/19/16	08/19/16	EPA 8260B	
<b>Toluene</b>	<b>0.0069</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.011</b>	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

**Total Metals by EPA Method 6020 - Dry Weight Basis**

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>0.380</b>	0.375	mg/kg dry	1	1608207	08/22/16	08/22/16	EPA 6020A	
<b>Barium</b>	<b>1160</b>	0.750	"	"	"	"	"	"	

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Project Number: 065815003  
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08/25/16 09:23

**MA-5-7-6H-CB**  
**1608154-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA Method 6020 - Dry Weight Basis**

Cadmium	0.344	0.188 mg/kg dry	1	1608207	08/22/16	08/22/16	EPA 6020A
Chromium	31.1	0.938 "	"	"	"	"	"
Copper	55.0	0.938 "	"	"	"	"	"
Lead	11.7	0.375 "	"	"	"	"	"
Nickel	24.6	0.188 "	"	"	"	"	"
Selenium	1.03	0.750 "	"	"	"	"	"
Silver	0.204	0.188 "	"	"	"	"	"
Zinc	97.1	18.8 "	"	"	"	"	"

**Total Mercury by EPA Method 7471**

Date Sampled: 08/19/16 07:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0938	mg/kg dry	1	1608229	08/23/16	08/24/16	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: 08/19/16 07:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.300	mg/kg dry	1	1608232	08/23/16	08/24/16	EPA 7196	

**Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis**

Date Sampled: 08/19/16 07:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1850	18.8	mg/kg dry	1	1608212	08/22/16	08/22/16	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	743	9.38	"	"	"	"	"	"	
Sodium	1910	9.38	"	"	"	"	"	"	

Date Sampled: 08/19/16 07:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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08/25/16 09:23

**MA-5-7-6H-CB**  
**1608154-01 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis**

<b>Sodium Adsorption Ratio</b>	<b>9.48</b>	units	1	1608238	08/23/16	08/23/16	EPA 6020/Mod. USDA60 6(2, 3A)
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**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>2.97</b>	0.0100	mmhos/cm	1	1608209	08/22/16	08/22/16	SM 2510B	

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.06</b>	0.100	pH Units	"	1608208	08/22/16	08/22/16	EPA 9045	

Date Sampled: **08/19/16 07:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>53.3</b>		%	"	1608213	08/22/16	08/23/16	% calculation	

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**Reported:**  
08/25/16 09:23

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch 1608206 - EPA 3550A**

**Blank (1608206-BLK1)**

Prepared & Analyzed: 08/19/16

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	13.2		"	12.5		106	70-130			

**LCS (1608206-BS1)**

Prepared & Analyzed: 08/19/16

C10-C28 (DRO)	427	50	mg/kg	499		85.5	50-150			
C28-C36 (ORO)	5.31	50	"				50-150			
Surrogate: o-Terphenyl	12.1		"	12.5		97.2	70-130			

**Matrix Spike (1608206-MS1)**

Source: 1608155-01

Prepared & Analyzed: 08/19/16

C10-C28 (DRO)	453	50	mg/kg	499	34.1	83.9	50-150			
C28-C36 (ORO)	14.5	50	"		13.4		50-150			
Surrogate: o-Terphenyl	12.5		"	12.5		99.6	70-130			

**Matrix Spike Dup (1608206-MSD1)**

Source: 1608155-01

Prepared & Analyzed: 08/19/16

C10-C28 (DRO)	457	50	mg/kg	499	34.1	84.7	50-150	0.912	20	
C28-C36 (ORO)	15.2	50	"		13.4		50-150	4.84	20	
Surrogate: o-Terphenyl	12.8		"	12.5		102	70-130			

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Project: MA-5-7-6H Preset  
Project Number: 065815003  
Project Manager: Brett Forkner

Reported:  
08/25/16 09:23

**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 1608205 - EPA 5030 Soil MS**

**Blank (1608205-BLK1)**

Prepared & Analyzed: 08/19/16

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0400		93.9	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	21-167			

**LCS (1608205-BS1)**

Prepared & Analyzed: 08/19/16

Benzene	0.0963	0.0020	mg/kg	0.100		96.3	58-130			
Toluene	0.104	0.0050	"	0.100		104	61-134			
Ethylbenzene	0.0925	0.0050	"	0.0992		93.2	74-139			
m,p-Xylene	0.177	0.010	"	0.200		88.9	73-137			
o-Xylene	0.0922	0.0050	"	0.0980		94.1	73-141			
Xylenes (total)	0.270	0.0050	"				30-150			
Gasoline Range Hydrocarbons	2.05	0.50	"				30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0387		"	0.0400		96.7	23-173			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	21-167			

**Matrix Spike (1608205-MS1)**

Source: 1608155-01

Prepared & Analyzed: 08/19/16

Benzene	0.0910	0.0020	mg/kg	0.100	ND	91.0	30-131			
Toluene	0.0953	0.0050	"	0.100	ND	95.3	30-134			
Ethylbenzene	0.0807	0.0050	"	0.0992	ND	81.4	22-153			
m,p-Xylene	0.156	0.010	"	0.200	ND	77.9	10-159			
o-Xylene	0.0802	0.0050	"	0.0980	ND	81.9	31-151			
Xylenes (total)	0.236	0.0050	"		ND		30-150			
Gasoline Range Hydrocarbons	1.76	0.50	"		ND		30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0384		"	0.0400		96.0	23-173			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

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Project: MA-5-7-6H Preset

Project Number: 065815003  
Project Manager: Brett Forkner

**Reported:**  
08/25/16 09:23

**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 1608205 - EPA 5030 Soil MS**

Matrix Spike Dup (1608205-MSD1)		Source: 1608155-01			Prepared & Analyzed: 08/19/16					
Benzene	0.0914	0.0020	mg/kg	0.100	ND	91.4	30-131	0.427	34	
Toluene	0.0966	0.0050	"	0.100	ND	96.6	30-134	1.28	30	
Ethylbenzene	0.0807	0.0050	"	0.0992	ND	81.4	22-153	0.0372	24	
m,p-Xylene	0.155	0.010	"	0.200	ND	77.9	10-159	0.0772	68	
o-Xylene	0.0796	0.0050	"	0.0980	ND	81.2	31-151	0.751	38	
Xylenes (total)	0.235	0.0050	"		ND		30-150	0.306	20	
Gasoline Range Hydrocarbons	1.79	0.50	"		ND		30-150	1.56	20	
Surrogate: 1,2-Dichloroethane-d4	0.0383		"	0.0400		95.8	23-173			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.5	21-167			

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Project: MA-5-7-6H Preset  
Project Number: 065815003  
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Reported:  
08/25/16 09:23

**Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control**  
**Summit Scientific**

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

**Batch 1608207 - EPA 3050B**

**Blank (1608207-BLK1)**

Prepared & Analyzed: 08/22/16

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.100	"
Chromium	ND	0.500	"
Copper	ND	0.500	"
Lead	ND	0.200	"
Nickel	ND	0.100	"
Selenium	ND	0.400	"
Silver	ND	0.100	"
Zinc	ND	10.0	"

**LCS (1608207-BS1)**

Prepared & Analyzed: 08/22/16

Arsenic	111	0.500	mg/kg wet	132	83.9	82.6-117
Barium	218	1.00	"	228	95.7	72.8-127
Cadmium	123	0.250	"	122	101	80.3-120
Chromium	61.9	1.25	"	63.2	98.0	74.7-125
Copper	207	1.25	"	212	97.8	85.4-115
Lead	104	0.500	"	108	96.7	81.1-119
Nickel	278	0.250	"	284	97.8	88-112
Selenium	84.5	1.00	"	80.5	105	73.7-127
Silver	72.6	0.250	"	73.5	98.8	69.8-130
Zinc	199	25.0	"	203	97.8	77.8-122

**Duplicate (1608207-DUP1)**

Source: 1608154-01

Prepared & Analyzed: 08/22/16

Arsenic	ND	0.375	mg/kg dry	0.380		20
Barium	1120	0.750	"	1160	3.18	20
Cadmium	0.353	0.188	"	0.344	2.72	20
Chromium	32.0	0.938	"	31.1	2.86	20
Copper	56.7	0.938	"	55.0	3.02	20
Lead	12.0	0.375	"	11.7	2.55	20
Nickel	25.0	0.188	"	24.6	1.42	20
Selenium	0.995	0.750	"	1.03	3.77	20
Silver	0.201	0.188	"	0.204	1.24	20
Zinc	111	18.8	"	97.1	13.5	20

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Project Number: 065815003  
Project Manager: Brett Forkner

Reported:  
08/25/16 09:23

**Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control**  
**Summit Scientific**

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

**Batch 1608207 - EPA 3050B**

Matrix Spike (1608207-MS1)		Source: 1608154-01			Prepared & Analyzed: 08/22/16					
Arsenic	18.9	0.375	mg/kg dry	75.0	0.380	24.6	75-125			QM-07
Barium	1420	0.750	"	75.0	1160	351	75-125			QM-07
Cadmium	4.40	0.188	"	3.75	0.344	108	75-125			
Chromium	112	0.938	"	75.0	31.1	108	75-125			
Copper	137	0.938	"	75.0	55.0	109	75-125			
Lead	48.7	0.375	"	37.5	11.7	98.6	75-125			
Nickel	109	0.188	"	75.0	24.6	113	75-125			
Selenium	10.3	0.750	"	7.50	1.03	124	75-125			
Silver	4.14	0.188	"	3.75	0.204	105	75-125			
Zinc	187	18.8	"	75.0	97.1	120	75-125			

Matrix Spike Dup (1608207-MSD1)		Source: 1608154-01			Prepared & Analyzed: 08/22/16					
Arsenic	17.0	0.375	mg/kg dry	73.9	0.380	22.5	75-125	10.5	25	QM-07
Barium	1380	0.750	"	73.9	1160	299	75-125	3.02	25	QM-07
Cadmium	4.12	0.188	"	3.69	0.344	102	75-125	6.59	25	
Chromium	105	0.938	"	73.9	31.1	100	75-125	6.65	25	
Copper	130	0.938	"	73.9	55.0	101	75-125	5.51	25	
Lead	45.2	0.375	"	36.9	11.7	90.8	75-125	7.42	25	
Nickel	102	0.188	"	73.9	24.6	105	75-125	6.46	25	
Selenium	9.53	0.750	"	7.39	1.03	115	75-125	7.98	25	
Silver	3.80	0.188	"	3.69	0.204	97.3	75-125	8.58	25	
Zinc	197	18.8	"	73.9	97.1	135	75-125	4.95	25	QM-07

Summit Scientific

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

Project: MA-5-7-6H Preset  
Project Number: 065815003  
Project Manager: Brett Forkner

**Reported:**  
08/25/16 09:23

**Total Mercury by EPA Method 7471 - Quality Control**  
**Summit Scientific**

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

**Batch 1608229 - EPA 7471A**

**Blank (1608229-BLK1)**

Prepared: 08/23/16 Analyzed: 08/24/16

Mercury ND 0.0500 mg/kg wet

**LCS (1608229-BS1)**

Prepared: 08/23/16 Analyzed: 08/24/16

Mercury 0.499 0.0500 mg/kg wet 0.500 99.7 80-120

**Duplicate (1608229-DUP1)**

**Source: 1608155-01**

Prepared: 08/23/16 Analyzed: 08/24/16

Mercury 0.0330 0.0556 mg/kg dry 0.0301 9.37 20

**Matrix Spike (1608229-MS1)**

**Source: 1608155-01**

Prepared: 08/23/16 Analyzed: 08/24/16

Mercury 0.532 0.0556 mg/kg dry 0.515 0.0301 97.4 80-120

**Matrix Spike Dup (1608229-MSD1)**

**Source: 1608155-01**

Prepared: 08/23/16 Analyzed: 08/24/16

Mercury 0.572 0.0556 mg/kg dry 0.545 0.0301 99.4 80-120 7.33 20

Summit Scientific

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

Project: MA-5-7-6H Preset

Project Number: 065815003  
Project Manager: Brett Forkner

**Reported:**  
08/25/16 09:23

**Hexavalent Chromium by EPA 7196 - Quality Control**  
**Summit Scientific**

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

**Batch 1608232 - 3060A\_Mod**

**Blank (1608232-BLK1)**

Prepared: 08/23/16 Analyzed: 08/24/16

Chromium, Hexavalent ND 0.300 mg/kg wet

**LCS (1608232-BS1)**

Prepared: 08/23/16 Analyzed: 08/24/16

Chromium, Hexavalent 20.4 0.300 mg/kg wet 19.9 103 85-115

**Duplicate (1608232-DUP1)**

**Source: 1608155-01**

Prepared: 08/23/16 Analyzed: 08/24/16

Chromium, Hexavalent ND 0.300 mg/kg dry ND 20

**Matrix Spike (1608232-MS1)**

**Source: 1608155-01**

Prepared: 08/23/16 Analyzed: 08/24/16

Chromium, Hexavalent 1.56 0.300 mg/kg dry 22.2 ND 7.02 85-115 QM-07

**Post Spike (1608232-PS1)**

**Source: 1608155-01**

Prepared: 08/23/16 Analyzed: 08/24/16

Chromium, Hexavalent 0.247 mg/kg 0.498 0.00 49.5 85-115 QM-07

Summit Scientific

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

Project: MA-5-7-6H Preset  
Project Number: 065815003  
Project Manager: Brett Forkner

Reported:  
08/25/16 09:23

**Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis - Quality Control**  
**Summit Scientific**

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

**Batch 1608212 - General Preparation**

**Blank (1608212-BLK1)**

Prepared & Analyzed: 08/22/16

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

**LCS (1608212-BS1)**

Prepared & Analyzed: 08/22/16

Calcium	503	10.0	mg/kg wet	500	101	82.9-118
Magnesium	517	5.00	"	500	103	77.1-123
Sodium	526	5.00	"	500	105	71-129

**Duplicate (1608212-DUP1)**

Source: 1608154-01

Prepared & Analyzed: 08/22/16

Calcium	2100	18.8	mg/kg dry	1850	12.9	200
Magnesium	786	9.38	"	743	5.67	200
Sodium	2010	9.38	"	1910	5.45	200

**Matrix Spike (1608212-MS1)**

Source: 1608154-01

Prepared & Analyzed: 08/22/16

Calcium	2720	18.8	mg/kg dry	938	1850	92.9	75-125
Magnesium	1540	9.38	"	938	743	84.7	75-125
Sodium	2730	9.38	"	938	1910	88.0	75-125

**Matrix Spike Dup (1608212-MSD1)**

Source: 1608154-01

Prepared & Analyzed: 08/22/16

Calcium	2670	18.8	mg/kg dry	938	1850	87.3	75-125	1.97	25
Magnesium	1570	9.38	"	938	743	88.7	75-125	2.41	25
Sodium	2800	9.38	"	938	1910	95.1	75-125	2.40	25

Summit Scientific

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

Project: MA-5-7-6H Preset  
Project Number: 065815003  
Project Manager: Brett Forkner

Reported:  
08/25/16 09:23

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control  
Summit Scientific

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

Batch 1608208 - General Preparation

LCS (1608208-BS1)

Prepared & Analyzed: 08/22/16

pH	6.04	0.100	pH Units	8.00	75.5	95-105
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Duplicate (1608208-DUP1)

Source: 1608154-01

Prepared & Analyzed: 08/22/16

pH	8.91	0.100	pH Units	9.06	1.67	20
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Batch 1608209 - General Preparation

Blank (1608209-BLK1)

Prepared & Analyzed: 08/22/16

Specific Conductance (EC)	ND	0.0100	mmhos/cm
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LCS (1608209-BS1)

Prepared & Analyzed: 08/22/16

Specific Conductance (EC)	0.508	0.0100	mmhos/cm	0.500	102	90-110
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Duplicate (1608209-DUP1)

Source: 1608154-01

Prepared & Analyzed: 08/22/16

Specific Conductance (EC)	2.61	0.0100	mmhos/cm	2.97	12.7	20
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Batch 1608213 - General Preparation

Duplicate (1608213-DUP1)

Source: 1608154-01

Prepared: 08/22/16 Analyzed: 08/23/16

% Solids	54.0	%	53.3	1.30	20
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Summit Scientific

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

Project: MA-5-7-6H Preset

Project Number: 065815003  
Project Manager: Brett Forkner

**Reported:**  
08/25/16 09:23

### Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.

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

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Summit Scientific

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