

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 11, 2017

Chris Purcell  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: Propst #2

Enclosed are the results of analyses for samples received by Summit Scientific on 10/06/17 17:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury  
Laboratory Manager



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

Project: Propst #2

Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp01	1710070-01	Soil	10/06/17 13:00	10/06/17 17:50
Comp02	1710070-02	Soil	10/06/17 13:15	10/06/17 17:50
Comp03	1710070-03	Soil	10/06/17 13:30	10/06/17 17:50
Comp04	1710070-04	Soil	10/06/17 13:45	10/06/17 17:50
Comp05	1710070-05	Soil	10/06/17 14:00	10/06/17 17:50

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.*

# Summit Scientific

S<sub>2</sub>

1710070

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

Page 1 of 1

Client: LTE Project Manager: Chris Purcell, Hank Raizen  
 Address: 4600 W. 60th Avenue E-Mail: cpurcell@tenv.com, hraizen@tenv.com  
 City/State/Zip: Arvada, Co 80003  
 Phone: (303)433-9788 Fax: Project Name: Propst #2  
 Sampler Name: B. Finn Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions			
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	EC	PH	SAR						
1	Comp01	10/06/17	1300	2			x			x			x	x	x						
2	Comp02	↓	1315	↓			↓			↓			↓	↓	↓						
3	Comp03	↓	1330	↓			↓			↓			↓	↓	↓						
4	Comp04	↓	1345	↓			↓			↓			↓	↓	↓						
5	Comp05	↓	1400	↓			↓			↓			↓	↓	↓						
6																					
7																					
8																					
9																					
10																					

Relinquished by: <u>Bud J.</u> Date/Time: <u>10/06/2017 1750</u>	Received by: <u>[Signature]</u> Date/Time: <u>10-6-17 17:50</u>	Turn Around Time (Check) Same Day <u>   </u> 72 hours <u>x</u> 24 hours <u>   </u> Standard <u>   </u> 48 hours <u>   </u> Sample Integrity: Temperature Upon Receipt: <u>16.6</u> Intact: <u>Yes</u> No	Notes: <u>Results Thursday Please</u>
Relinquished by:	Received by:		
Relinquished by:	Received by:		

1710070

Sample Receipt Checklist

S2 Work Order: \_\_\_\_\_

Client: LTE Client Project ID: PROPST #2

Shipped Via: H.D. ON ICE Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Cooler ID					
Temp (°C)	16.6				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			
Were all samples received intact <sup>(1)</sup> ?	✓			
Was adequate sample volume provided <sup>(1)</sup> ?	✗			
If custody seals are present, are they intact <sup>(1)</sup> ?			✓	
Are short holding time analytes or samples with HTs due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	✗			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? 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 <sup>(1)</sup> ? Record the pH in Comments.			✗	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

Muri P.  
Custodian Printed Name

MA 10-6-17  
Signature or Initials of Custodian

18:00  
Date/Time



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

Project: Propst #2

Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

**Comp01**  
**1710070-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/06/17 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1750</b>	11.6	mg/kg dry	1	1710081	10/09/17	10/09/17	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>142</b>	5.78	"	"	"	"	"	"	
<b>Sodium</b>	<b>3360</b>	5.78	"	"	"	"	"	"	
<b>Sodium Adsorption Ratio</b>	<b>20.8</b>		units	"	1710120	10/11/17	10/11/17	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **10/06/17 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.40</b>	0.100	pH Units	1	1710090	10/10/17	10/10/17	EPA 9045	
<b>% Solids</b>	<b>86.5</b>		%	"	1710092	10/10/17	10/11/17	% calculation	
<b>Specific Conductance (EC)</b>	<b>11.8</b>	0.0100	mmhos/cm	"	1710091	10/10/17	10/10/17	SM 2510B	

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.*



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

Project: Propst #2  
Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

**Comp02**  
**1710070-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/06/17 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1510</b>	11.6	mg/kg dry	1	1710081	10/09/17	10/09/17	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>171</b>	5.81	"	"	"	"	"	"	
<b>Sodium</b>	<b>2980</b>	5.81	"	"	"	"	"	"	
<b>Sodium Adsorption Ratio</b>	<b>19.4</b>		units	"	1710120	10/11/17	10/11/17	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **10/06/17 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>10.2</b>	0.0100	mmhos/cm	1	1710091	10/10/17	10/10/17	SM 2510B	
<b>% Solids</b>	<b>86.0</b>		%	"	1710092	10/10/17	10/11/17	% calculation	
<b>pH</b>	<b>8.71</b>	0.100	pH Units	"	1710090	10/10/17	10/10/17	EPA 9045	

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.*



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

Project: Propst #2  
Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

**Comp03**  
**1710070-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/06/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1130</b>	12.1	mg/kg dry	1	1710081	10/09/17	10/09/17	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>194</b>	6.04	"	"	"	"	"	"	
<b>Sodium</b>	<b>2680</b>	6.04	"	"	"	"	"	"	
<b>Sodium Adsorption Ratio</b>	<b>19.4</b>		units	"	1710120	10/11/17	10/11/17	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **10/06/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.09</b>	0.100	pH Units	1	1710090	10/10/17	10/10/17	EPA 9045	
<b>Specific Conductance (EC)</b>	<b>8.26</b>	0.0100	mmhos/cm	"	1710091	10/10/17	10/10/17	SM 2510B	
<b>% Solids</b>	<b>82.8</b>		%	"	1710092	10/10/17	10/11/17	% calculation	

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.*



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

Project: Propst #2  
 Project Number: [none]  
 Project Manager: Chris Purcell

**Reported:**  
 10/11/17 15:49

**Comp04**  
**1710070-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/06/17 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>2920</b>	11.7	mg/kg dry	1	1710081	10/09/17	10/09/17	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>161</b>	5.84	"	"	"	"	"	"	
<b>Sodium</b>	<b>1490</b>	5.84	"	"	"	"	"	"	
<b>Sodium Adsorption Ratio</b>	<b>7.27</b>		units	"	1710120	10/11/17	10/11/17	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **10/06/17 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.01</b>	0.100	pH Units	1	1710090	10/10/17	10/10/17	EPA 9045	
<b>% Solids</b>	<b>85.6</b>		%	"	1710092	10/10/17	10/11/17	% calculation	
<b>Specific Conductance (EC)</b>	<b>2.57</b>	0.0100	mmhos/cm	"	1710091	10/10/17	10/10/17	SM 2510B	

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.*



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

Project: Propst #2  
Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

**Comp05**  
**1710070-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/06/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>4120</b>	12.9	mg/kg dry	1	1710081	10/09/17	10/09/17	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>332</b>	6.44	"	"	"	"	"	"	
<b>Sodium</b>	<b>5850</b>	6.44	"	"	"	"	"	"	
<b>Sodium Adsorption Ratio</b>	<b>23.6</b>		units	"	1710120	10/11/17	10/11/17	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **10/06/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.44</b>	0.100	pH Units	1	1710090	10/10/17	10/10/17	EPA 9045	
<b>% Solids</b>	<b>77.6</b>		%	"	1710092	10/10/17	10/11/17	% calculation	
<b>Specific Conductance (EC)</b>	<b>20.2</b>	0.0100	mmhos/cm	"	1710091	10/10/17	10/10/17	SM 2510B	

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.*



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

Project: Propst #2  
Project Number: [none]  
Project Manager: Chris Purcell

Reported:  
10/11/17 15:49

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

**Summit Scientific**

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

**Batch 1710081 - General Preparation**

**Blank (1710081-BLK1)**

Prepared & Analyzed: 10/09/17

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

**LCS (1710081-BS1)**

Prepared & Analyzed: 10/09/17

Calcium	969	10.0	mg/kg wet	1000		96.9	82.9-118			
Magnesium	861	5.00	"	1000		86.1	77.1-123			
Sodium	876	5.00	"	1000		87.6	71-129			

**Duplicate (1710081-DUP1)**

Source: 1710039-05

Prepared & Analyzed: 10/09/17

Calcium	4250	11.7	mg/kg dry		2520			51.2	200	
Magnesium	296	5.87	"		416			33.5	200	
Sodium	2040	5.87	"		295			150	200	

**Matrix Spike (1710081-MS1)**

Source: 1710039-05

Prepared & Analyzed: 10/09/17

Calcium	3960	11.7	mg/kg dry	1170	2520	123	75-125			
Magnesium	1400	5.87	"	1170	416	84.3	75-125			
Sodium	1650	5.87	"	1170	295	115	75-125			

**Matrix Spike Dup (1710081-MSD1)**

Source: 1710039-05

Prepared & Analyzed: 10/09/17

Calcium	3980	11.7	mg/kg dry	1170	2520	125	75-125	0.458	25	
Magnesium	1440	5.87	"	1170	416	87.2	75-125	2.39	25	
Sodium	1680	5.87	"	1170	295	118	75-125	1.86	25	

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.



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

Project: Propst #2

Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

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

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

**Batch 1710090 - General Preparation**

<b>LCS (1710090-BS1)</b>					Prepared & Analyzed: 10/10/17					
pH	9.18	0.100	pH Units	9.16	100	95-105				
<b>Duplicate (1710090-DUP1)</b>					Source: 1710033-01 Prepared & Analyzed: 10/10/17					
pH	9.41	0.100	pH Units	9.34	0.747	20				

**Batch 1710091 - General Preparation**

<b>Blank (1710091-BLK1)</b>					Prepared & Analyzed: 10/10/17					
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
<b>LCS (1710091-BS1)</b>					Prepared & Analyzed: 10/10/17					
Specific Conductance (EC)	0.751	0.0100	mmhos/cm	0.750	100	90-110				
<b>Duplicate (1710091-DUP1)</b>					Source: 1710033-01 Prepared & Analyzed: 10/10/17					
Specific Conductance (EC)	4.36	0.0100	mmhos/cm	4.36	0.149	20				

**Batch 1710092 - General Preparation**

<b>Duplicate (1710092-DUP1)</b>					Source: 1710089-01 Prepared & Analyzed: 10/10/17					
% Solids	90.1		%	89.6	0.556	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.*



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

Project: Propst #2

Project Number: [none]  
Project Manager: Chris Purcell

**Reported:**  
10/11/17 15:49

### 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