

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

February 25, 2014

Jake Janicek  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: NEP - 1K

Enclosed are the results of analyses for samples received by Summit Scientific on 02/25/14 10:22. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury  
President / Laboratory Manager



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

Project: NEP - 1K

Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NEW@12' bgs	1402132-01	Soil	02/24/14 11:30	02/25/14 10:22
NW@10' bgs	1402132-02	Soil	02/24/14 12:00	02/25/14 10:22
NB@17'bgs	1402132-03	Soil	02/24/14 13:40	02/25/14 10:22
NWW@10'bgs	1402132-04	Soil	02/24/14 13:45	02/25/14 10:22

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: NEP - 1K

Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

1402132

**Summit Scientific**  
S<sub>2</sub>

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-374-5933 Fax

Client: LT Environmental  
Address: 800 Megan Ave. Unit B  
City/State/Zip: Rifle, CO 81659  
Phone: 970-285-5985  
Sampler Name: Dustin Held

Project Manager: Jake Janicek  
E-Mail: jjanicek@item.com, rfishburn@item.com  
Project Name: IK  
Project Number: 008313115

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Sample Depth	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions									
					HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TPH GRO/DRO	BTEX	Arsenic	Pb	Hg		Other								
NW 12' 105	2/24/14	10:30	10'	3																							
NW 10' 105	2/24/14	10:30	10'	3																							
NW 17' 105	2/24/14	10:40	17'	3																							
NW 10' 105	2/24/14	10:45	10'	3																							

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
DJK	2/24/14 16:10	WJ	2/24/14 16:20	Same Day	Please direct Bill Asher Weinberg at Noble Energy.
YB	2/24/14 16:40	FedEx		24 Hours	
				48 Hours	
				Standard	
				Sample Integrity:	
				Temperature Upon Receipt:	
				Intact: Yes No	

www.s2scientific.com

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

**NEW@12' bgs**  
**1402132-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1402170	02/25/14	02/25/14	8015M	

Date Sampled: **02/24/14 11:30**

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

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

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1402169	02/25/14	02/25/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	21-167		"	"	"	"	

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

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>6.50</b>	0.0888	mg/kg dry	1	1402168	02/25/14	02/25/14	EPA 6020A	

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

**NEW@12' bgs**  
**1402132-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>239</b>	7.89	mg/kg dry	1	1402163	02/25/14	02/25/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>137</b>	3.94	"	"	"	"	"	"	
<b>Sodium</b>	<b>1010</b>	3.94	"	"	"	"	"	"	

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>12.9</b>		units	"	1402164	02/25/14	02/25/14	"	

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

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.28</b>	0.0100	mmhos/cm	1	1402166	02/25/14	02/25/14	SM 2510B	

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.18</b>	0.100	pH Units	"	1402165	02/25/14	02/25/14	EPA 9045	

Date Sampled: **02/24/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>83.4</b>		%	"	1402162	02/25/14	02/25/14	% 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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

**NW@10' bgs**  
**1402132-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1402170	02/25/14	02/25/14	8015M	

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		102 %	30-150		"	"	"	"	

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

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1402169	02/25/14	02/25/14	EPA 8260B	
<b>Toluene</b>	<b>0.011</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.055</b>	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>2.1</b>	0.50	"	"	"	"	"	"	

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

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

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>3.60</b>	0.115	mg/kg dry	1	1402168	02/25/14	02/25/14	EPA 6020A	

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

**NW@10' bgs**  
**1402132-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1470</b>	13.0	mg/kg dry	1	1402163	02/25/14	02/25/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>1020</b>	6.50	"	"	"	"	"	"	
<b>Sodium</b>	<b>4170</b>	6.50	"	"	"	"	"	"	

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>20.4</b>		units	"	1402164	02/25/14	02/25/14	"	

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

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.77</b>	0.0100	mmhos/cm	1	1402166	02/25/14	02/25/14	SM 2510B	

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.28</b>	0.100	pH Units	"	1402165	02/25/14	02/25/14	EPA 9045	

Date Sampled: **02/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>55.5</b>		%	"	1402162	02/25/14	02/25/14	% 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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

**NB@17'bgs**  
**1402132-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1402170	02/25/14	02/25/14	8015M	

Date Sampled: **02/24/14 13:40**

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

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

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1402169	02/25/14	02/25/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	21-167		"	"	"	"	

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

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>8.32</b>	0.0908	mg/kg dry	1	1402168	02/25/14	02/25/14	EPA 6020A	

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

**NB@17'bgs**  
**1402132-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>184</b>	9.65	mg/kg dry	1	1402163	02/25/14	02/25/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>35.6</b>	4.83	"	"	"	"	"	"	
<b>Sodium</b>	<b>1880</b>	4.83	"	"	"	"	"	"	

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>33.2</b>		units	"	1402164	02/25/14	02/25/14	"	

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

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>3.59</b>	0.0100	mmhos/cm	1	1402166	02/25/14	02/25/14	SM 2510B	

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.66</b>	0.100	pH Units	"	1402165	02/25/14	02/25/14	EPA 9045	

Date Sampled: **02/24/14 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>84.5</b>		%	"	1402162	02/25/14	02/25/14	% 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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

**NWW@10'bgs**  
**1402132-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1402170	02/25/14	02/25/14	8015M	

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		105 %	30-150		"	"	"	"	

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

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1402169	02/25/14	02/25/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane- <i>d</i> 4		110 %	23-173		"	"	"	"	
Surrogate: Toluene- <i>d</i> 8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %	21-167		"	"	"	"	

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

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>8.03</b>	0.0868	mg/kg dry	1	1402168	02/25/14	02/25/14	EPA 6020A	

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

**NWW@10'bgs**  
**1402132-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>510</b>	11.9	mg/kg dry	1	1402163	02/25/14	02/25/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>256</b>	5.97	"	"	"	"	"	"	
<b>Sodium</b>	<b>2740</b>	5.97	"	"	"	"	"	"	

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>24.7</b>		units	"	1402164	02/25/14	02/25/14	"	

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

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>3.89</b>	0.0100	mmhos/cm	1	1402166	02/25/14	02/25/14	SM 2510B	

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.13</b>	0.100	pH Units	"	1402165	02/25/14	02/25/14	EPA 9045	

Date Sampled: **02/24/14 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>83.7</b>		%	"	1402162	02/25/14	02/25/14	% 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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

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

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

**Batch 1402170 - EPA 3550A**

**Blank (1402170-BLK1)**

Prepared & Analyzed: 02/25/14

C10-C28 (DRO) ND 50 mg/kg

**LCS (1402170-BS1)**

Prepared & Analyzed: 02/25/14

C10-C28 (DRO) 533 50 mg/kg 488 109 73-134

**Matrix Spike (1402170-MS1)**

**Source: 1402132-01**

Prepared & Analyzed: 02/25/14

C10-C28 (DRO) 548 50 mg/kg 490 ND 112 50-148

**Matrix Spike Dup (1402170-MSD1)**

**Source: 1402132-01**

Prepared & Analyzed: 02/25/14

C10-C28 (DRO) 554 50 mg/kg 487 ND 114 50-148 1.12 13

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch 1402169 - EPA 5030 Soil MS**

**Blank (1402169-BLK1)**

Prepared & Analyzed: 02/25/14

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	0.0379		"	0.0395	96.0	23-173				
Surrogate: Toluene-d8	0.0379		"	0.0398	95.2	20-170				
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0398	96.1	21-167				

**LCS (1402169-BS1)**

Prepared & Analyzed: 02/25/14

Benzene	0.00758	0.00018	mg/kg	0.00890	85.1	58-130				
Toluene	0.00821	0.00045	"	0.00893	92.0	61-134				
Ethylbenzene	0.00915	0.00045	"	0.00886	103	74-139				
m,p-Xylene	0.0184	0.00089	"	0.0179	103	73-137				
o-Xylene	0.00909	0.00045	"	0.00882	103	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.00352		"	0.00354	99.3	23-173				
Surrogate: Toluene-d8	0.00345		"	0.00357	96.7	20-170				
Surrogate: 4-Bromofluorobenzene	0.00351		"	0.00357	98.2	21-167				

**LCS (1402169-BS2)**

Prepared & Analyzed: 02/25/14

Benzene	0.0808	0.0020	mg/kg	0.0966	83.6	58-130				
Toluene	0.0874	0.0050	"	0.0969	90.2	61-134				
Ethylbenzene	0.0997	0.0050	"	0.0961	104	74-139				
m,p-Xylene	0.200	0.010	"	0.194	103	73-137				
o-Xylene	0.0976	0.0050	"	0.0957	102	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0365		"	0.0385	95.0	23-173				
Surrogate: Toluene-d8	0.0369		"	0.0388	95.1	20-170				
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0388	97.0	21-167				

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch 1402169 - EPA 5030 Soil MS**

**Matrix Spike (1402169-MS1)**

**Source: 1402132-01**

Prepared & Analyzed: 02/25/14

Benzene	0.0829	0.0020	mg/kg	0.0974	ND	85.2	30-131			
Toluene	0.0896	0.0050	"	0.0977	ND	91.7	30-134			
Ethylbenzene	0.101	0.0050	"	0.0969	ND	104	22-153			
m,p-Xylene	0.204	0.010	"	0.195	ND	105	10-159			
o-Xylene	0.102	0.0050	"	0.0965	ND	105	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0388		103	23-173			
Surrogate: Toluene-d8	0.0377		"	0.0391		96.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0391		98.2	21-167			

**Matrix Spike (1402169-MS2)**

**Source: 1402145-01**

Prepared & Analyzed: 02/25/14

Benzene	0.0766	0.0020	mg/kg	0.0920	ND	83.3	30-131			
Toluene	0.0845	0.0050	"	0.0923	ND	91.6	30-134			
Ethylbenzene	0.0939	0.0050	"	0.0915	ND	103	22-153			
m,p-Xylene	0.192	0.010	"	0.185	ND	104	10-159			
o-Xylene	0.0943	0.0050	"	0.0911	ND	103	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0366		103	23-173			
Surrogate: Toluene-d8	0.0356		"	0.0369		96.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0356		"	0.0369		96.5	21-167			

**Matrix Spike Dup (1402169-MSD1)**

**Source: 1402132-01**

Prepared & Analyzed: 02/25/14

Benzene	0.0802	0.0020	mg/kg	0.0961	ND	83.5	30-131	3.36	34	
Toluene	0.0877	0.0050	"	0.0963	ND	91.0	30-134	2.08	30	
Ethylbenzene	0.0964	0.0050	"	0.0956	ND	101	22-153	4.52	24	
m,p-Xylene	0.198	0.010	"	0.193	ND	103	10-159	3.44	68	
o-Xylene	0.0979	0.0050	"	0.0952	ND	103	31-151	3.69	38	
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0382		106	23-173			
Surrogate: Toluene-d8	0.0374		"	0.0385		97.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0385		98.0	21-167			

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch 1402169 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (1402169-MSD2)</b>	<b>Source: 1402145-01</b>			<b>Prepared &amp; Analyzed: 02/25/14</b>						
Benzene	0.0803	0.0020	mg/kg	0.0939	ND	85.5	30-131	4.65	34	
Toluene	0.0875	0.0050	"	0.0942	ND	93.0	30-134	3.48	30	
Ethylbenzene	0.0977	0.0050	"	0.0934	ND	105	22-153	4.01	24	
m,p-Xylene	0.198	0.010	"	0.188	ND	105	10-159	3.34	68	
o-Xylene	0.0991	0.0050	"	0.0930	ND	106	31-151	4.94	38	
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0374		104	23-173			
Surrogate: Toluene-d8	0.0367		"	0.0377		97.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0377		96.7	21-167			

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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

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

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

**Batch 1402168 - EPA 3050B**

**Blank (1402168-BLK1)**

Prepared & Analyzed: 02/25/14

Arsenic ND 0.0889 mg/kg wet

**LCS (1402168-BS1)**

Prepared & Analyzed: 02/25/14

Arsenic 2.77 0.100 mg/kg wet 2.36 118 80-120

**Matrix Spike (1402168-MS1)**

**Source: 1402109-02**

Prepared & Analyzed: 02/25/14

Arsenic 6.02 0.100 mg/kg dry 2.48 4.82 48.5 75-125 QM-07

**Matrix Spike Dup (1402168-MSD1)**

**Source: 1402109-02**

Prepared & Analyzed: 02/25/14

Arsenic 7.37 0.138 mg/kg dry 3.20 4.82 79.7 75-125 20.1 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: NEP - 1K  
Project Number: 0083-13115  
Project Manager: Jake Janicek

Reported:  
02/25/14 23:30

**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 1402163 - General Preparation**

**Blank (1402163-BLK1)**

Prepared & Analyzed: 02/25/14

Calcium	ND	9.06	mg/kg wet							
Magnesium	ND	4.53	"							
Sodium	ND	13.6	"							

**LCS (1402163-BS1)**

Prepared & Analyzed: 02/25/14

Calcium	343	8.77	mg/kg wet	336	102	80-120			
Magnesium	181	4.39	"	168	107	80-120			
Sodium	447	13.2	"	420	106	80-120			

**LCS Dup (1402163-BSD1)**

Prepared & Analyzed: 02/25/14

Calcium	401	10.0	mg/kg wet	371	108	80-120	15.5	20
Magnesium	205	5.00	"	186	110	80-120	12.8	20
Sodium	517	15.0	"	464	111	80-120	14.5	20

**Matrix Spike (1402163-MS1)**

Source: 1402123-01

Prepared & Analyzed: 02/25/14

Calcium	562	10.9	mg/kg dry	400	66.5	124	75-125	
Magnesium	288	5.44	"	201	114	86.7	75-125	
Sodium	947	16.3	"	500	449	99.5	75-125	

**Matrix Spike Dup (1402163-MSD1)**

Source: 1402123-01

Prepared & Analyzed: 02/25/14

Calcium	542	10.9	mg/kg dry	389	66.5	122	75-125	3.56	25
Magnesium	272	5.44	"	195	114	80.9	75-125	5.65	25
Sodium	919	16.3	"	487	449	96.5	75-125	2.99	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: NEP - 1K  
 Project Number: 0083-13115  
 Project Manager: Jake Janicek

**Reported:**  
 02/25/14 23:30

**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 1402162 - General Preparation**

<b>Duplicate (1402162-DUP1)</b>		<b>Source: 1402123-01</b>			Prepared & Analyzed: 02/25/14					
% Solids	91.9		%		91.9			0.00	20	

**Batch 1402165 - General Preparation**

<b>LCS (1402165-BS1)</b>		Prepared & Analyzed: 02/25/14								
pH	8.03	0.100	pH Units	8.00	100	0-200				
<b>Duplicate (1402165-DUP1)</b>		<b>Source: 1402123-01</b>			Prepared & Analyzed: 02/25/14					
pH	7.14	0.100	pH Units	6.80			4.88	20		

**Batch 1402166 - General Preparation**

<b>Blank (1402166-BLK1)</b>		Prepared & Analyzed: 02/25/14								
Specific Conductance (EC)	ND	0.0500	mmhos/cm							
<b>Duplicate (1402166-DUP1)</b>		<b>Source: 1402123-01</b>			Prepared & Analyzed: 02/25/14					
Specific Conductance (EC)	1.38	0.0500	mmhos/cm	1.41			2.19	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: NEP - 1K

Project Number: 0083-13115  
Project Manager: Jake Janicek

**Reported:**  
02/25/14 23:30

### 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