

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 03, 2018

Andy Verbonitz

LT Environmental, Inc.

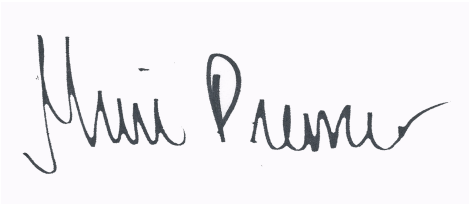
4600 West 60th Avenue

Arvada, CO 80003

RE: Cockrofit Spreadfield

Enclosed are the results of analyses for samples received by Summit Scientific on 09/26/18 12:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Ben Shrewsbury

Laboratory Manager



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

Project: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp07-2	1809372-01	Soil	09/25/18 13:00	09/26/18 12:15
Comp08-2	1809372-02	Soil	09/25/18 13:09	09/26/18 12:15
Comp10	1809372-03	Soil	09/25/18 13:30	09/26/18 12:15

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

1809372

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

Page 1 of 1

Client: LT Environmental
Address: 4600 W 60th Ave
City/State/Zip: Arvada CO 80003
Phone: 303-433-9788 Fax: 303-433-1432
Sampler Name: S. Baum

Project Manager: Verbonitz
E-Mail: averbonitz@ltenv.com
Project Name: Cockroft + Spread Field
Project Number: 062318003

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:						Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TVPH/TEPH	BTEX	pH	EC	SAR	Table 910-1 Metals		Arsenic
Comp07-2	09/25/18	1300	2			X			X						X	X			
Comp08-2	09/25/18	1309	2			X			X						X	X			
Comp10	09/25/18	1330	2			X			X				X	X	X	X	X		
Relinquished by:		Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)														
<i>[Signature]</i>	9/26	1100	<i>[Signature]</i>	9/26 1100	Same Day	<input type="checkbox"/>	72 Hours	<input type="checkbox"/>											
Relinquished by:		Date/Time:	Received by:	Date/Time:	24 Hours	<input type="checkbox"/>	Standard	<input checked="" type="checkbox"/>											
<i>[Signature]</i>	9/26	1215	<i>[Signature]</i>	9-26-18 1215	48 Hours	<input type="checkbox"/>													
Relinquished by:		Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:														
					Temperature Upon Receipt:	8.0													
					Intact:	Yes	No												
					<input checked="" type="checkbox"/>	<input type="checkbox"/>													

Sample Receipt Checklist

S2 Work Order 1809372

Client: LT E Client Project ID: Cockcroft Springfield

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

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

Temp (°C)	8.0
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	/			
<small>NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.</small>				
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
If custody seals are present, are they intact ⁽¹⁾ ?			/	
Are samples with holding times due within 48 hours sample due within 48 hours present?			/	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			/	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			/	
<small>Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect</small>				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			/	
If dissolved metals are requested, were samples field filtered?			/	
Additional Comments (if any): 				

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

cp
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

9.26.18 1430
Date/Time



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

Project: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Comp07-2
1809372-01 (Soil)

Summit Scientific

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

Date Sampled: **09/25/18 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	4240	10.8	mg/kg dry	1	1809357	09/28/18	09/29/18	EPA 6020B	
Magnesium	426	5.42	"	"	"	"	"	"	
Sodium	1650	5.42	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/25/18 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	6.46	0.100	units	1	1810007	10/01/18	10/01/18	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/25/18 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	92.2		%	1	1809363	09/28/18	09/28/18	Calculation	

Specific Conductance by EPA Method 120.1

Date Sampled: **09/25/18 13:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	14.7	0.0100	mmhos/cm	1	1809330	09/27/18	09/27/18	EPA 120.1	

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Comp08-2
1809372-02 (Soil)

Summit Scientific

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

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

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	1350	10.3	mg/kg dry	1	1809357	09/28/18	09/29/18	EPA 6020B	
Magnesium	316	5.16	"	"	"	"	"	"	
Sodium	854	5.16	"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	5.44	0.100	units	1	1810007	10/01/18	10/01/18	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	96.9		%	1	1809363	09/28/18	09/28/18	Calculation	

Specific Conductance by EPA Method 120.1

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

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	11.7	0.0100	mmhos/cm	1	1809330	09/27/18	09/27/18	EPA 120.1	

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Comp10
1809372-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1809332	09/27/18	09/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	200	50	mg/kg	1	1809333	09/27/18	09/28/18	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	6.94	0.212	mg/kg dry	1	1809355	09/28/18	09/29/18	EPA 6020B	
Barium	711	0.424	"	"	"	"	"	"	

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Comp10
1809372-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	4.24	mg/kg dry	1	1809355	09/28/18	09/29/18	EPA 6020B	
Cadmium	1.46	0.212	"	"	"	"	"	"	
Chromium	11.2	0.424	"	"	"	"	"	"	
Copper	22.5	0.424	"	"	"	"	"	"	
Lead	8.19	0.212	"	"	"	"	"	"	
Nickel	23.1	0.424	"	"	"	"	"	"	
Selenium	2.54	0.424	"	"	"	"	"	"	
Silver	0.114	0.0212	"	"	"	"	"	"	
Zinc	71.9	0.424	"	"	"	"	"	"	

Total Mercury by EPA 7471

Date Sampled: 09/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0530	mg/kg dry	1	1809324	09/27/18	09/28/18	EPA 7471	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 09/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	1809343	09/26/18	09/26/18	EPA 7196A	

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

Date Sampled: 09/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4350	10.6	mg/kg dry	1	1809357	09/28/18	09/29/18	EPA 6020B	
Magnesium	325	5.30	"	"	"	"	"	"	
Sodium	1750	5.30	"	"	"	"	"	"	

Calculated Analysis

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Comp10
1809372-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium+3 Calculated	11.2	0.300	mg/kg	1	1810030	10/02/18	10/02/18	Calculation	
Sodium Adsorption Ratio	6.89	0.100	units	"	1810007	10/01/18	10/01/18	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	94.3		%	1	1809363	09/28/18	09/28/18	Calculation	
pH	7.83		pH Units	"	1809327	09/27/18	09/27/18	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **09/25/18 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	10.2	0.0100	mmhos/cm	1	1809330	09/27/18	09/27/18	EPA 120.1	

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

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 1809332 - EPA 5030 Soil MS

Blank (1809332-BLK1)

Prepared: 09/27/18 Analyzed: 09/28/18

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	0.0420		"	0.0396		106	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

LCS (1809332-BS1)

Prepared: 09/27/18 Analyzed: 09/28/18

Benzene	0.109	0.0020	mg/kg	0.100		109	70-130			
Toluene	0.109	0.0050	"	0.100		109	70-130			
Ethylbenzene	0.115	0.0050	"	0.100		115	70-130			
m,p-Xylene	0.226	0.010	"	0.200		113	70-130			
o-Xylene	0.110	0.0050	"	0.100		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0396		104	23-173			
Surrogate: Toluene-d8	0.0396		"	0.0400		98.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	21-167			

Matrix Spike (1809332-MS1)

Source: 1809340-01

Prepared: 09/27/18 Analyzed: 09/28/18

Benzene	0.0964	0.0020	mg/kg	0.100	ND	96.4	70-130			
Toluene	0.0969	0.0050	"	0.100	ND	96.9	70-130			
Ethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130			
m,p-Xylene	0.201	0.010	"	0.200	ND	100	70-130			
o-Xylene	0.0970	0.0050	"	0.100	ND	97.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0396		105	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1809332 - EPA 5030 Soil MS

Matrix Spike Dup (1809332-MSD1)	Source: 1809340-01			Prepared: 09/27/18 Analyzed: 09/28/18						
Benzene	0.0954	0.0020	mg/kg	0.100	ND	95.4	70-130	1.00	30	
Toluene	0.0968	0.0050	"	0.100	ND	96.8	70-130	0.0620	30	
Ethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	0.235	30	
m,p-Xylene	0.199	0.010	"	0.200	ND	99.7	70-130	0.630	30	
o-Xylene	0.0961	0.0050	"	0.100	ND	96.1	70-130	0.963	30	
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0396		103	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1809333 - EPA 3550A

Blank (1809333-BLK1)

Prepared: 09/27/18 Analyzed: 09/28/18

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							

LCS (1809333-BS1)

Prepared: 09/27/18 Analyzed: 09/28/18

C10-C28 (DRO)	455	50	mg/kg	500	91.0	81.4-129				
---------------	-----	----	-------	-----	------	----------	--	--	--	--

Matrix Spike (1809333-MS1)

Source: 1809340-01

Prepared: 09/27/18 Analyzed: 09/28/18

C10-C28 (DRO)	442	50	mg/kg	500	34.8	81.5	77.8-133			
---------------	-----	----	-------	-----	------	------	----------	--	--	--

Matrix Spike Dup (1809333-MSD1)

Source: 1809340-01

Prepared: 09/27/18 Analyzed: 09/28/18

C10-C28 (DRO)	448	50	mg/kg	500	34.8	82.6	77.8-133	1.22	8.48	
---------------	-----	----	-------	-----	------	------	----------	------	------	--

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch 1809355 - EPA 3050B

Blank (1809355-BLK1)

Prepared: 09/28/18 Analyzed: 09/29/18

Arsenic	ND	0.200	mg/kg wet						
Barium	ND	0.400	"						
Boron	ND	4.00	"						
Cadmium	ND	0.200	"						
Chromium	ND	0.400	"						
Copper	ND	0.400	"						
Lead	ND	0.200	"						
Nickel	ND	0.400	"						
Selenium	ND	0.400	"						
Silver	ND	0.0200	"						
Zinc	ND	0.400	"						

LCS (1809355-BS1)

Prepared: 09/28/18 Analyzed: 09/29/18

Arsenic	51.6	0.200	mg/kg wet	45.0	115	80-120
Barium	52.6	0.400	"	45.0	117	80-120
Cadmium	2.34	0.200	"	2.25	104	80-120
Boron	41.6	4.00	"	40.0	104	80-120
Chromium	52.3	0.400	"	45.0	116	80-120
Copper	46.7	0.400	"	45.0	104	80-120
Lead	26.7	0.200	"	22.5	119	80-120
Nickel	53.9	0.400	"	45.0	120	80-120
Selenium	5.29	0.400	"	4.50	117	80-120
Silver	2.36	0.0200	"	2.25	105	80-120
Zinc	48.3	0.400	"	45.0	107	80-120

Duplicate (1809355-DUP1)

Source: 1809303-01

Prepared: 09/28/18 Analyzed: 09/29/18

Arsenic	0.301	0.204	mg/kg dry	0.298	0.998	30
Barium	51.5	0.409	"	52.4	1.83	30
Boron	ND	4.09	"	ND		30
Cadmium	0.0318	0.204	"	0.0282	12.1	30
Chromium	12.0	0.409	"	11.8	2.36	30
Copper	16.4	0.409	"	17.3	5.48	30
Lead	6.07	0.204	"	5.62	7.58	30
Nickel	6.18	0.409	"	6.29	1.79	30
Selenium	ND	0.409	"	ND		30
Silver	0.0710	0.0204	"	0.0815	13.8	30
Zinc	23.7	0.409	"	25.9	8.59	30

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch 1809355 - EPA 3050B

Matrix Spike (1809355-MS1)

Source: 1809303-01

Prepared: 09/28/18 Analyzed: 09/29/18

Arsenic	53.6	0.204	mg/kg dry	46.0	0.298	116	75-125			
Barium	107	0.409	"	46.0	52.4	118	75-125			
Boron	38.2	4.09	"	40.9	ND	93.5	75-125			
Cadmium	2.87	0.204	"	2.30	0.0282	123	75-125			
Chromium	69.2	0.409	"	46.0	11.8	125	75-125			
Copper	73.9	0.409	"	46.0	17.3	123	75-125			
Lead	33.0	0.204	"	23.0	5.62	119	75-125			
Nickel	61.4	0.409	"	46.0	6.29	120	75-125			
Selenium	4.62	0.409	"	4.60	ND	100	75-125			
Silver	2.84	0.0204	"	2.30	0.0815	120	75-125			
Zinc	79.9	0.409	"	46.0	25.9	118	75-125			

Matrix Spike Dup (1809355-MSD1)

Source: 1809303-01

Prepared: 09/28/18 Analyzed: 09/29/18

Arsenic	52.2	0.204	mg/kg dry	46.0	0.298	113	75-125	2.62	25
Barium	104	0.409	"	46.0	52.4	112	75-125	2.58	25
Boron	37.7	4.09	"	40.9	ND	92.1	75-125	1.49	20
Cadmium	2.82	0.204	"	2.30	0.0282	121	75-125	1.71	25
Chromium	66.3	0.409	"	46.0	11.8	118	75-125	4.28	25
Copper	70.5	0.409	"	46.0	17.3	115	75-125	4.74	25
Lead	31.7	0.204	"	23.0	5.62	113	75-125	4.26	25
Nickel	59.7	0.409	"	46.0	6.29	116	75-125	2.78	25
Selenium	4.56	0.409	"	4.60	ND	99.1	75-125	1.41	25
Silver	2.77	0.0204	"	2.30	0.0815	117	75-125	2.56	25
Zinc	80.5	0.409	"	46.0	25.9	119	75-125	0.725	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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Total Mercury by EPA 7471 - Quality Control
Summit Scientific

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

Batch 1809324 - EPA 7471A

Blank (1809324-BLK1)

Prepared: 09/27/18 Analyzed: 09/28/18

Mercury ND 0.0500 mg/kg wet

LCS (1809324-BS1)

Prepared: 09/27/18 Analyzed: 09/28/18

Mercury 0.509 0.0500 mg/kg wet 0.500 102 80-120

Matrix Spike (1809324-MS1)

Source: 1809332-01

Prepared: 09/27/18 Analyzed: 09/28/18

Mercury 1.66 0.0542 mg/kg dry 0.542 5.77 NR 75-125 QM-02

Matrix Spike Dup (1809324-MSD1)

Source: 1809332-01

Prepared: 09/27/18 Analyzed: 09/28/18

Mercury 1.74 0.0542 mg/kg dry 0.542 5.77 NR 75-125 4.60 20 QM-02

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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch 1809343 - 3060A Mod

Blank (1809343-BLK1)

Prepared & Analyzed: 09/25/18

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (1809343-BS1)

Prepared & Analyzed: 09/25/18

Chromium, Hexavalent 23.4 0.30 mg/kg wet 25.0 93.8 80-120

Duplicate (1809343-DUP1)

Source: 1809269-30

Prepared & Analyzed: 09/25/18

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (1809343-MS1)

Source: 1809269-30

Prepared & Analyzed: 09/25/18

Chromium, Hexavalent 24.9 0.30 mg/kg dry 26.2 ND 95.2 75-125

Matrix Spike Dup (1809343-MSD1)

Source: 1809269-30

Prepared & Analyzed: 09/25/18

Chromium, Hexavalent 25.0 0.30 mg/kg dry 26.2 ND 95.4 75-125 0.210 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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

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

Summit Scientific

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

Batch 1809357 - General Preparation

Blank (1809357-BLK1)

Prepared: 09/28/18 Analyzed: 09/29/18

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

LCS (1809357-BS1)

Prepared: 09/28/18 Analyzed: 09/29/18

Calcium	496	10.0	mg/kg wet	500	99.3	70-130			
Magnesium	522	5.00	"	500	104	70-130			
Sodium	541	5.00	"	500	108	70-130			

Duplicate (1809357-DUP1)

Source: 1809309-11

Prepared: 09/28/18 Analyzed: 09/29/18

Calcium	1090	11.6	mg/kg dry	990			9.73	20	
Magnesium	313	5.80	"	303			2.99	20	
Sodium	10.4	5.80	"	11.4			9.23	20	

Matrix Spike (1809357-MS1)

Source: 1809309-11

Prepared: 09/28/18 Analyzed: 09/29/18

Calcium	1600	11.6	mg/kg dry	580	990	105	70-130		
Magnesium	955	5.80	"	580	303	112	70-130		
Sodium	643	5.80	"	580	11.4	109	70-130		

Matrix Spike Dup (1809357-MSD1)

Source: 1809309-11

Prepared: 09/28/18 Analyzed: 09/29/18

Calcium	1690	11.6	mg/kg dry	580	990	121	70-130	5.66	25
Magnesium	995	5.80	"	580	303	119	70-130	4.08	25
Sodium	621	5.80	"	580	11.4	105	70-130	3.48	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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

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

Summit Scientific

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

Batch 1809327 - General Preparation

LCS (1809327-BS1)

Prepared & Analyzed: 09/27/18

pH 9.2 pH Units 9.18 99.9 95-105

Duplicate (1809327-DUP1)

Source: 1809275-02

Prepared & Analyzed: 09/27/18

pH 8.9 pH Units 8.9 0.338 20

Batch 1809363 - General Preparation

Duplicate (1809363-DUP1)

Source: 1809303-01

Prepared & Analyzed: 09/28/18

% Solids 97.9 % 97.8 0.102 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: Cockroft Spreadfield

Project Number: 62318003
 Project Manager: Andy Verbonitz

Reported:
 10/03/18 15:01

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 1809330 - General Preparation

Blank (1809330-BLK1)

Prepared & Analyzed: 09/27/18

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1809330-BS1)

Prepared & Analyzed: 09/27/18

Specific Conductance (EC) 0.766 0.0100 mmhos/cm 0.750 102 90-110

Duplicate (1809330-DUP1)

Source: 1809275-02

Prepared & Analyzed: 09/27/18

Specific Conductance (EC) 0.758 0.0100 mmhos/cm 0.743 2.06 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: Cockroft Spreadfield

Project Number: 62318003
Project Manager: Andy Verbonitz

Reported:
10/03/18 15:01

Notes and Definitions

QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
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