



**Epperly 14C-23 Pad (Facility ID 335451)**  
**Form 19 (Report of Corrective Actions Completed)**  
**Spill 438146**  
**Narrative Attachment**  
Document Date – 08/28/2014

This Form 19 (Report of Corrective Actions Completed) was prepared for the purpose of requesting No Further Action (NFA) determination be made for a release (Spill 438146) at the Epperly 14C-23 Pad (Facility ID 335451) in Bill Barrett Corporation's (BBC) Piceance area of operations. This document presents analytical evidence that observed hydrocarbon impacts have been remediated to Colorado Oil and Gas Conservation Commission (COGCC) standards. A topographic Site Location Map is included as an attachment to this form (Figure 1).

**REMEDIATION WORKPLAN**

**Describe initial action taken (if previously provided, refer to that form or document):**

An initial from 19 was submitted on 7/18/2014 (Document # 400646732).

**Describe how source is to be removed:**

Impacted soil within the release area was removed through excavation activities. After excavation activities were completed, confirmation soil samples were collected and submitted for the following analytical suite: total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX), Table 910-1 polycyclic aromatic hydrocarbons (PAHs), COGCC Table 910-1 metals, electrical conductivity (EC), pH, and sodium adsorption ratio (SAR). Please refer to the attached Table 1 for a summary of confirmation sample results. A Site Map is provided as Figure 2. Laboratory analytical reports are included as an attachment.

**Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:**

Soil was excavated from the release area and stockpiled on site. Excavated soil represented by samples CS04 and CS05 was sampled and submitted for a reduced laboratory analytical suite per the approval of Carlos Lujan of the COGCC. Once laboratory analytical results indicated that the excavated soil was compliant with the COGCC Table 910-1 Concentration Levels, Mr. Lujan approved the beneficial re-use of the excavated material to construct containment berms on site.

**If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):**

Groundwater was not encountered during remedial activities. Groundwater is estimated to be 42 feet below ground surface (bgs).



**Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.**

The excavation was backfilled to match original grade.

**Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing. Is further site investigation required? If yes, describe:**

Confirmation soil samples were collected from the sidewalls and the bottom of the excavated area (West Wall@5', SS02, SS04, SS05, SS06, SS07, SS08, and East Wall02@6'). Laboratory analytical results of the confirmation soil samples indicate all analytes are either compliant with COGCC Table 910-1 Concentration Levels or were within the COGCC's allowable arsenic range (1.25x background arsenic concentration), except for the pH result of soil sample SS08. However, Frequently Asked Question Number 32 on the COGCC website explains that the COGCC will apply the Table 910-1 Concentration Levels for EC, SAR, and pH only to soils that are within 3 feet of the ground surface as these analytes relate to reclamation. Soil sample SS08 was collected at approximately six feet bgs. The excavation extents and soil sample locations are depicted on the attached Site Map (Figure 2) and laboratory analytical results are provided in Table 1. Laboratory analytical reports are included as an attachment.

Based on these recent analytical results, BBC is requesting a NFA determination for this release. If the information provided is satisfactory, please provide a letter of No Further Action and closure documentation for this project.

**Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):**

The excavated area was backfilled using clean imported fill material and clean overburden that was preserved during excavation. The excavated material was sampled and submitted for a reduced laboratory analytical suite per the approval of the COGCC. Based on laboratory analytical results, the COGCC approved the beneficial re-use of the excavated material to construct containment berms on site.

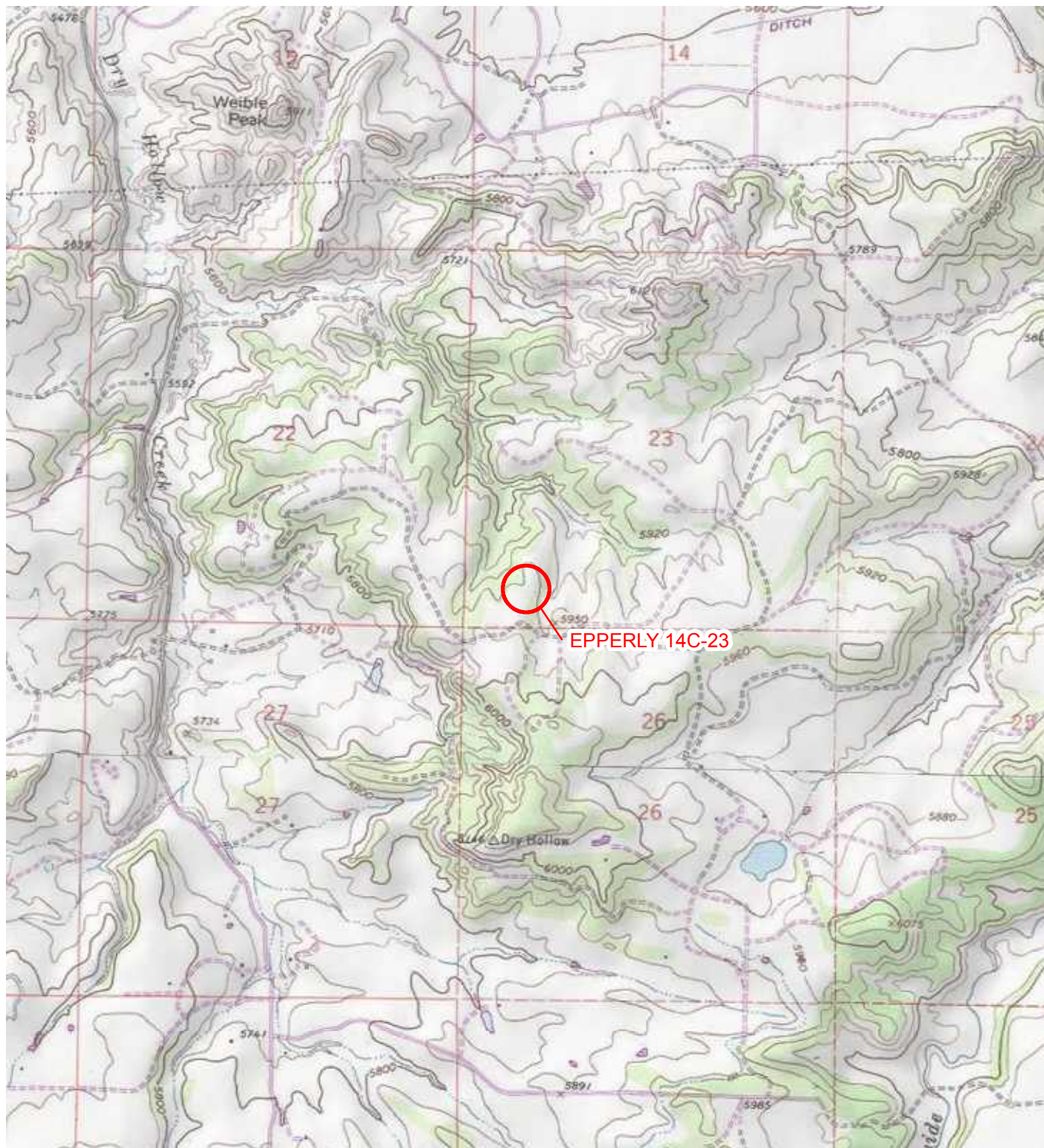


IMAGE COURTESY OF ESRI/USGS

# LEGEND

○ SITE LOCATION

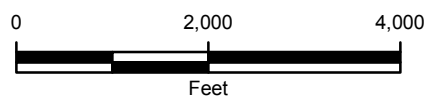
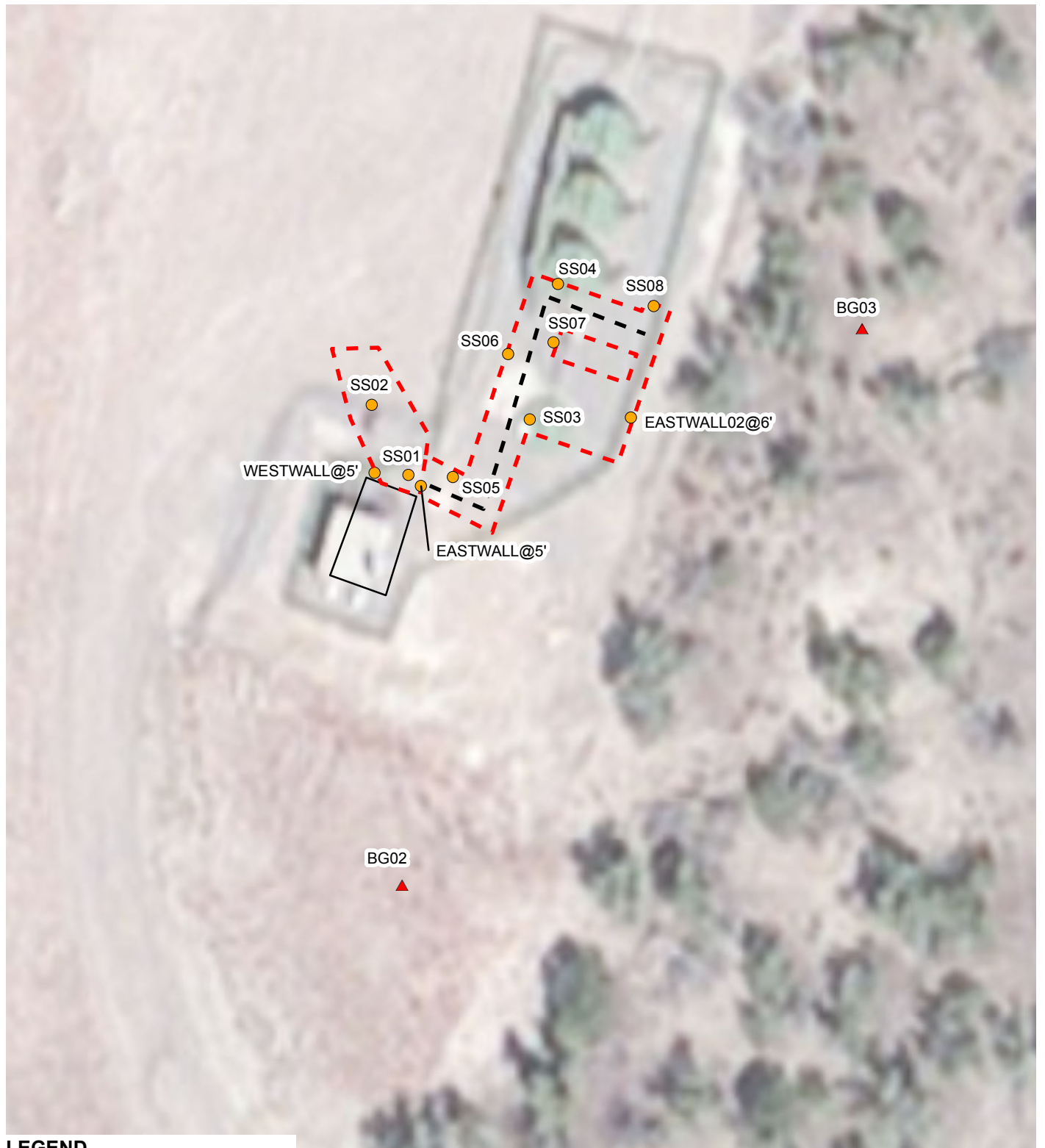


FIGURE 1  
SITE LOCATION MAP  
EPPERLY 14C-23  
GARFIELD COUNTY, COLORADO

BILL BARRETT CORPORATION







# LEGEND

- SOIL SAMPLE
- ▲ BACKGROUND SOIL SAMPLE
- - - EXCAVATION TRENCH
- - - EXCAVATION EXTENT
- ▭ SEPARATOR

IMAGE COURTESY OF ESRI

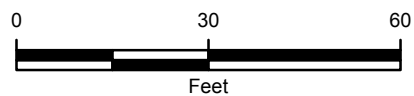


FIGURE 2  
SITE MAP  
EPPERLY 14C-23  
GARFIELD COUNTY, COLORADO

BILL BARRETT CORPORATION



**TABLE 1**  
**SOIL ANALYTICAL RESULTS**  
**EPPELY 14C-23**  
**GARFIELD COUNTY, COLORADO**  
**BILL BARRETT CORPORATION**

Parameter	Standard	BG01	BG02	BG03	BG04
Depth (feet)					
Sample Date		7/8/2014	7/8/2014	7/8/2014	7/8/2014

**Inorganics**

Electrical Conductivity (mmhos/cm)	4	0.459	0.106	0.695	0.370
SAR (meq/meq)	12	0.320	0.120	0.120	0.600
pH, Lab (Standard Units)	6 to 9	8.47	7.61	8.17	8.23

**Metals**

Arsenic (mg/kg)	0.39	<b>6.27</b>	<b>3.08</b>	<b>10.1</b>	<b>4.19</b>
Barium (mg/kg)	15000				
Cadmium (mg/kg)	70				
Chromium+3 Calculated (mg/kg)	120000				
Chromium, Hexavalent (mg/kg)	23				
Copper (mg/kg)	3100				
Lead (mg/kg)	400				
Mercury (mg/kg)	23				
Nickel (mg/kg)	1600				
Selenium (mg/kg)	390				
Silver (mg/kg)	390				
Zinc (mg/kg)	23000				

**Organic Compounds**

TPH-DRO (mg/kg)	
TPH-GRO (mg/kg)	
TPH-Total (mg/kg)	500
Benzene (mg/kg)	0.17
Toluene (mg/kg)	85
Ethylbenzene (mg/kg)	100
Xylenes, Total (mg/kg)	175
Acenaphthene (mg/kg)	1000
Anthracene (mg/kg)	1000
Benzo (a) anthracene (mg/kg)	0.22
Benzo (b) fluoranthene (mg/kg)	0.22
Benzo (k) fluoranthene (mg/kg)	2.2
Benzo (a) pyrene (mg/kg)	0.022
Chrysene (mg/kg)	22
Dibenz (a,h) anthracene (mg/kg)	0.022
Fluoranthene (mg/kg)	1000
Fluorene (mg/kg)	1000
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22
Naphthalene (mg/kg)	23
Pyrene (mg/kg)	1000

**Notes:**

< - less than stated laboratory reporting limit  
 Bold indicates result is equal to or exceeds the applicable standard  
 Basic Standards for Soil are from 2 CCR 404-1, Table 910-1, effective April 2009  
 GRO - Gasoline range organics  
 TPH-Total - sum of TPH-GRO and TPH-DRO

mg/kg - milligrams per kilogram  
 mmhos/cm - millimhos per centimeter  
 TPH - Total petroleum hydrocarbons (C6-C28)  
 DRO - Diesel range organics  
 SAR - Sodium adsorption ratio



**TABLE 1 (Continued)**  
**SOIL ANALYTICAL RESULTS**  
**EPPERLY 14C-23**  
**GARFIELD COUNTY, COLORADO**  
**BILL BARRETT CORPORATION**

Parameter	Standard	CS04	CS05	East Wall	EastWall02
Depth (feet)				5.0	6.0
Sample Date		7/29/2014	7/29/2014	7/14/2014	7/24/2014

**Inorganics**

Electrical Conductivity (mmhos/cm)	4	3.8	<b>6.6</b>	1.45	2.47
SAR (meq/meq)	12	2.9	3.4	4.59	2.70
pH, Lab (Standard Units)	6 to 9	8.8	8.6	8.51	8.45

**Metals**

Arsenic (mg/kg)	0.39			<b>5.16</b>	<b>10.7</b>
Barium (mg/kg)	15000			549	227
Cadmium (mg/kg)	70			0.323	0.879
Chromium+3 Calculated (mg/kg)	120000			8.68	7.60
Chromium, Hexavalent (mg/kg)	23			<1.23	<1.02
Copper (mg/kg)	3100			6.96	8.50
Lead (mg/kg)	400			15.2	20.3
Mercury (mg/kg)	23			<0.0616	0.141
Nickel (mg/kg)	1600			13.1	16.3
Selenium (mg/kg)	390			0.105	0.456
Silver (mg/kg)	390			<0.123	<0.113
Zinc (mg/kg)	23000			45.7	34.8

**Organic Compounds**

TPH-DRO (mg/kg)		370	210	1300	98
TPH-GRO (mg/kg)		<2.8	<2.7	3800	<0.45
TPH-Total (mg/kg)	500	370	210	<b>5100</b>	98
Benzene (mg/kg)	0.17	<0.033	<0.033	<b>0.91</b>	<0.0018
Toluene (mg/kg)	85	<0.033	<0.033	0.18	<0.0045
Ethylbenzene (mg/kg)	100	<0.033	<0.033	2.3	<0.0045
Xylenes, Total (mg/kg)	175	<0.1	<0.099	45	<0.0045
Acenaphthene (mg/kg)	1000	<0.015	<0.0072	<0.00500	<0.00500
Anthracene (mg/kg)	1000	<0.015	0.012	<0.00500	<0.00500
Benzo (a) anthracene (mg/kg)	0.22	<0.015	0.013	<0.00500	<0.00500
Benzo (b) fluoranthene (mg/kg)	0.22	<0.015	<0.0072	0.0292	<0.00500
Benzo (k) fluoranthene (mg/kg)	2.2	<0.015	<0.0072	0.0142	<0.00500
Benzo (a) pyrene (mg/kg)	0.022	<0.015	<0.0072	0.0206	<0.00500
Chrysene (mg/kg)	22	<0.015	<0.0072	0.0748	<0.00500
Dibenz (a,h) anthracene (mg/kg)	0.022	<0.015	<0.0072	<0.00500	<0.00500
Fluoranthene (mg/kg)	1000	<0.015	<0.0072	<0.00500	<0.00500
Fluorene (mg/kg)	1000	<0.015	<0.0072	0.157	<0.00500
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22	<0.015	<0.0072	<0.00500	<0.00500
Naphthalene (mg/kg)	23	<0.015	<0.0072	1.05	<0.00500
Pyrene (mg/kg)	1000	<0.015	0.01	0.0682	<0.00500

**Notes:**

< - less than stated laboratory reporting limit

Bold indicates result is equal to or exceeds the applicable standard

Basic Standards for Soil are from 2 CCR 404-1, Table 910-1, effective April 2009

GRO - Gasoline range organics

TPH-Total - sum of TPH-GRO and TPH-DRO

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

TPH - Total petroleum hydrocarbons (C6-C28)

DRO - Diesel range organics

SAR - Sodium adsorption ratio



**TABLE 1 (Continued)**  
**SOIL ANALYTICAL RESULTS**  
**EPPERLY 14C-23**  
**GARFIELD COUNTY, COLORADO**  
**BILL BARRETT CORPORATION**

Parameter	Standard	SS01	SS02	SS03	SS04
Depth (feet)		6.0	6.0	6.0	6.0
Sample Date		7/8/2014	7/8/2014	7/21/2014	7/21/2014

**Inorganics**

Electrical Conductivity (mmhos/cm)	4	1.86	0.463	0.710	0.675
SAR (meq/meq)	12	2.80	1.68	2.28	1.73
pH, Lab (Standard Units)	6 to 9	8.06	8.28	8.79	8.50

**Metals**

Arsenic (mg/kg)	0.39	<b>5.46</b>	<b>6.07</b>	<b>8.01</b>	<b>11.5</b>
Barium (mg/kg)	15000	681	324	829	324
Cadmium (mg/kg)	70	0.253	0.353	0.335	0.279
Chromium+3 Calculated (mg/kg)	120000	12.2	9.11	6.66	5.23
Chromium, Hexavalent (mg/kg)	23	<1.26	<0.988	<1.13	<1.02
Copper (mg/kg)	3100	9.84	7.03	9.36	7.16
Lead (mg/kg)	400	13.6	11.4	13.6	13.1
Mercury (mg/kg)	23	0.0244	0.172	0.0690	0.0695
Nickel (mg/kg)	1600	14.7	10.7	10.5	7.71
Selenium (mg/kg)	390	0.290	0.142	0.393	0.309
Silver (mg/kg)	390	<0.126	<0.106	<0.113	<0.102
Zinc (mg/kg)	23000	31.9	25.5	26.6	22.3

**Organic Compounds**

TPH-DRO (mg/kg)		640	150	1300	410
TPH-GRO (mg/kg)		75	2.5	440	<0.50
TPH-Total (mg/kg)	500	<b>715</b>	152.5	<b>1740</b>	410
Benzene (mg/kg)	0.17	<b>1.1</b>	<0.0020	<b>0.35</b>	<0.0020
Toluene (mg/kg)	85	0.14	<0.0050	0.81	<0.0050
Ethylbenzene (mg/kg)	100	2.8	<0.0050	0.27	<0.0050
Xylenes, Total (mg/kg)	175	46	<0.0050	13	<0.0050
Acenaphthene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500
Anthracene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500
Benzo (a) anthracene (mg/kg)	0.22	<0.00500	<0.00500	<0.00500	<0.00500
Benzo (b) fluoranthene (mg/kg)	0.22	0.0266	<0.00500	<0.00500	<0.00500
Benzo (k) fluoranthene (mg/kg)	2.2	0.0201	<0.00500	<0.00500	<0.00500
Benzo (a) pyrene (mg/kg)	0.022	<b>0.0255</b>	<0.00500	0.0163	<0.00500
Chrysene (mg/kg)	22	0.0495	0.00832	0.0353	<0.00500
Dibenz (a,h) anthracene (mg/kg)	0.022	<0.00500	<0.00500	<0.00500	<0.00500
Fluoranthene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500
Fluorene (mg/kg)	1000	0.972	<0.00500	0.165	<0.00500
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22	<0.00500	<0.00500	<0.00500	<0.00500
Naphthalene (mg/kg)	23	2.15	<0.00500	0.465	<0.00500
Pyrene (mg/kg)	1000	0.0436	<0.00500	0.0325	<0.00500

**Notes:**

< - less than stated laboratory reporting limit

Bold indicates result is equal to or exceeds the applicable standard

Basic Standards for Soil are from 2 CCR 404-1, Table 910-1, effective April 2009

GRO - Gasoline range organics

TPH-Total - sum of TPH-GRO and TPH-DRO

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

TPH - Total petroleum hydrocarbons (C6-C28)

DRO - Diesel range organics

SAR - Sodium adsorption ratio



**TABLE 1 (Continued)**  
**SOIL ANALYTICAL RESULTS**  
**EPPERLY 14C-23**  
**GARFIELD COUNTY, COLORADO**  
**BILL BARRETT CORPORATION**

Parameter	Standard	SS05	SS06	SS07	SS08
Depth (feet)		6.0	6.0	6.0	6.0
Sample Date		7/21/2014	7/21/2014	7/21/2014	7/21/2014

**Inorganics**

Electrical Conductivity (mmhos/cm)	4	1.96	0.804	0.687	0.509
SAR (meq/meq)	12	2.76	2.46	1.80	1.16
pH, Lab (Standard Units)	6 to 9	8.38	8.82	8.89	<b>9.08</b>

**Metals**

Arsenic (mg/kg)	0.39	<b>12.4</b>	<b>9.51</b>	<b>7.01</b>	<b>6.44</b>
Barium (mg/kg)	15000	580	453	594	232
Cadmium (mg/kg)	70	0.353	0.323	0.263	0.262
Chromium+3 Calculated (mg/kg)	120000	5.28	5.60	6.41	5.52
Chromium, Hexavalent (mg/kg)	23	<1.03	<1.01	<1.02	<1.09
Copper (mg/kg)	3100	8.27	7.41	7.50	8.50
Lead (mg/kg)	400	14.5	12.7	11.7	10.5
Mercury (mg/kg)	23	0.110	0.0876	0.0705	0.0772
Nickel (mg/kg)	1600	9.17	12.6	8.96	9.06
Selenium (mg/kg)	390	0.245	0.301	0.250	0.320
Silver (mg/kg)	390	<0.103	<0.101	<0.102	<0.109
Zinc (mg/kg)	23000	23.7	22.4	22.3	24.7

**Organic Compounds**

TPH-DRO (mg/kg)		110	180	110	<50
TPH-GRO (mg/kg)		<0.45	0.69	<0.50	<0.50
TPH-Total (mg/kg)	500	110	180.69	110	<50.5
Benzene (mg/kg)	0.17	<0.0018	<0.0020	<0.0020	<0.0020
Toluene (mg/kg)	85	<0.0045	<0.0050	<0.0050	<0.0050
Ethylbenzene (mg/kg)	100	<0.0045	<0.0050	<0.0050	<0.0050
Xylenes, Total (mg/kg)	175	<0.0045	0.050	<0.0050	<0.0050
Acenaphthene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500
Anthracene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500
Benzo (a) anthracene (mg/kg)	0.22	<0.00500	<0.00500	<0.00500	<0.00500
Benzo (b) fluoranthene (mg/kg)	0.22	<0.00500	<0.00500	<0.00500	<0.00500
Benzo (k) fluoranthene (mg/kg)	2.2	<0.00500	<0.00500	<0.00500	<0.00500
Benzo (a) pyrene (mg/kg)	0.022	<0.00500	<0.00500	<0.00500	<0.00500
Chrysene (mg/kg)	22	<0.00500	<0.00500	<0.00500	<0.00500
Dibenz (a,h) anthracene (mg/kg)	0.022	<0.00500	<0.00500	<0.00500	<0.00500
Fluoranthene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500
Fluorene (mg/kg)	1000	<0.00500	0.0127	<0.00500	<0.00500
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22	<0.00500	<0.00500	<0.00500	<0.00500
Naphthalene (mg/kg)	23	<0.00500	<0.00500	<0.00500	<0.00500
Pyrene (mg/kg)	1000	<0.00500	<0.00500	<0.00500	<0.00500

**Notes:**

< - less than stated laboratory reporting limit

Bold indicates result is equal to or exceeds the applicable standard

Basic Standards for Soil are from 2 CCR 404-1, Table 910-1, effective April 2009

GRO - Gasoline range organics

TPH-Total - sum of TPH-GRO and TPH-DRO

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

TPH - Total petroleum hydrocarbons (C6-C28)

DRO - Diesel range organics

SAR - Sodium adsorption ratio





**TABLE 1 (Continued)**  
**SOIL ANALYTICAL RESULTS**  
**EPPELY 14C-23**  
**GARFIELD COUNTY, COLORADO**  
**BILL BARRETT CORPORATION**

Parameter	Standard	West Wall
Depth (feet)		5.0
Sample Date		7/14/2014

**Inorganics**

Electrical Conductivity (mmhos/cm)	4	0.858
SAR (meq/meq)	12	1.69
pH, Lab (Standard Units)	6 to 9	8.58

**Metals**

Arsenic (mg/kg)	0.39	<b>4.96</b>
Barium (mg/kg)	15000	355
Cadmium (mg/kg)	70	0.274
Chromium+3 Calculated (mg/kg)	120000	8.51
Chromium, Hexavalent (mg/kg)	23	<1.26
Copper (mg/kg)	3100	6.11
Lead (mg/kg)	400	14.5
Mercury (mg/kg)	23	<0.0556
Nickel (mg/kg)	1600	13.2
Selenium (mg/kg)	390	<0.0632
Silver (mg/kg)	390	<0.126
Zinc (mg/kg)	23000	44.2

**Organic Compounds**

TPH-DRO (mg/kg)		63
TPH-GRO (mg/kg)		12
TPH-Total (mg/kg)	500	75
Benzene (mg/kg)	0.17	0.0044
Toluene (mg/kg)	85	<0.0050
Ethylbenzene (mg/kg)	100	<0.0050
Xylenes, Total (mg/kg)	175	0.086
Acenaphthene (mg/kg)	1000	<0.00500
Anthracene (mg/kg)	1000	<0.00500
Benzo (a) anthracene (mg/kg)	0.22	<0.00500
Benzo (b) fluoranthene (mg/kg)	0.22	<0.00500
Benzo (k) fluoranthene (mg/kg)	2.2	<0.00500
Benzo (a) pyrene (mg/kg)	0.022	<0.00500
Chrysene (mg/kg)	22	<0.00500
Dibenz (a,h) anthracene (mg/kg)	0.022	<0.00500
Fluoranthene (mg/kg)	1000	<0.00500
Fluorene (mg/kg)	1000	0.0176
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22	<0.00500
Naphthalene (mg/kg)	23	0.0164
Pyrene (mg/kg)	1000	<0.00500

**Notes:**

< - less than stated laboratory reporting limit

Bold indicates result is equal to or exceeds the applicable standard

Basic Standards for Soil are from 2 CCR 404-1, Table 910-1, effective April 2009

GRO - Gasoline range organics

TPH-Total - sum of TPH-GRO and TPH-DRO

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

TPH - Total petroleum hydrocarbons (C6-C28)

DRO - Diesel range organics

SAR - Sodium adsorption ratio



# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 11, 2014

Jake Janicek  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: BBC - Epperly 14C-23

Enclosed are the results of analyses for samples received by Summit Scientific on 07/09/14 10:00. 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' or 'Shrewsbury', 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01	1407045-01	Soil	07/08/14 11:20	07/09/14 10:00
SS02	1407045-02	Soil	07/08/14 11:30	07/09/14 10:00
CS01	1407045-03	Soil	07/08/14 11:45	07/09/14 10:00
CS02	1407045-04	Soil	07/08/14 11:55	07/09/14 10:00
BG01	1407045-05	Soil	07/08/14 12:00	07/09/14 10:00
BG02	1407045-06	Soil	07/08/14 12:05	07/09/14 10:00
BG03	1407045-07	Soil	07/08/14 12:10	07/09/14 10:00
BG04	1407045-08	Soil	07/08/14 12:15	07/09/14 10:00

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

1407045

Summit Scientific

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9910 • 303-374-5933 Fax

Client: LT Environmental Inc.  
Address: 820 Megan Ave Unit B  
City/State/Zip: Rifle, CO 81650  
Phone: 970-285-5985 Fax: 970-285-2467  
Sampler Name: Ryan Zernis  
Project Manager: Jake Janicek  
E-Mail: jjanicek@ltenv.com; RZernis@ltenv.com  
Project Name: Epperly 14C-23  
Project Number: 0273-14020

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For				Special Instructions	
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	As, EC, pH, SAR	Table 910 Metals	TPH - GRO/DRO	BTEX		
SS01	7/8/2014	1120	4														
SS02	7/8/2014	1130	4														
CS01	7/8/2014	1145	3														
CS02	7/8/2014	1155	4														
BC01	7/8/2014	1200	1														
BC02	7/8/2014	1205	1														
BC03	7/8/2014	1210	1														
BC04	7/8/2014	1215	1														

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
[Signature]	7/8/2014 1430	[Signature]	7/9/14 17:55	Same Day 72 Hours Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 Hours	
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt	
				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	5.1

www.S2scientific.com

[Signature]



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

Project: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS01**  
**1407045-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>640</b>	50	mg/kg	1	1407070	07/09/14	07/09/14	8015M	

Date Sampled: **07/08/14 11:20**

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

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

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>1.1</b>	0.020	mg/kg	10	1407071	07/09/14	07/09/14	EPA 8260B	
<b>Toluene</b>	<b>0.14</b>	0.050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2.8</b>	0.050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>46</b>	1.0	"	200	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>75</b>	5.0	"	10	"	"	"	"	

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		105 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS01**  
**1407045-01 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	<b>0.0266</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	<b>0.0201</b>	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.0255</b>	0.00500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.0495</b>	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.972</b>	0.0500	"	10	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	1	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>2.15</b>	0.0500	"	10	"	"	"	"	
<b>Phenanthrene</b>	<b>1.04</b>	0.0500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.0436</b>	0.00500	"	1	"	"	"	"	

Date Sampled: 07/08/14 11:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		116 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		186 %	50-150		"	"	"	"	S-02

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

Date Sampled: 07/08/14 11:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>5.46</b>	0.126	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	
<b>Barium</b>	<b>681</b>	1.26	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.253</b>	0.126	"	"	"	"	"	"	
<b>Chromium</b>	<b>13.5</b>	0.632	"	"	"	"	"	"	
<b>Copper</b>	<b>9.84</b>	1.26	"	"	"	"	"	"	
<b>Lead</b>	<b>13.6</b>	0.126	"	"	"	"	"	"	
<b>Nickel</b>	<b>14.7</b>	0.632	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.290</b>	0.0632	"	"	"	"	"	"	
Silver	ND	0.126	"	"	"	"	"	"	
<b>Zinc</b>	<b>31.9</b>	12.6	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS01**  
**1407045-01 (Soil)**

**Summit Scientific**

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

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	0.0244	0.0150	mg/kg dry	1	1407076	07/09/14	07/10/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.26	mg/kg dry	1	1407079	07/10/14	07/11/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	12.2	1.00	mg/kg	1	1407097	07/11/14	07/11/14	Calculation	

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

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1690	12.6	mg/kg dry	1	1407091	07/11/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	962	6.32	"	"	"	"	"	"	
Sodium	859	6.32	"	"	"	"	"	"	

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.80		units	"	1407089	07/10/14	07/11/14	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**SS01**  
**1407045-01 (Soil)**

**Summit Scientific**

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

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

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.86</b>	0.0100	mmhos/cm	1	1407068	07/09/14	07/09/14	SM 2510B	

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.06</b>	0.100	pH Units	"	1407072	07/09/14	07/09/14	EPA 9045	

Date Sampled: **07/08/14 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>79.1</b>		%	"	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS02**  
**1407045-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	1407070	07/09/14	07/09/14	8015M	

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

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

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407071	07/09/14	07/09/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2.5	0.50	"	"	"	"	"	"	

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS02**  
**1407045-02 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.00832</b>	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/08/14 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		79.2 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		70.9 %	50-150		"	"	"	"	

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

Date Sampled: 07/08/14 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>6.07</b>	0.106	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	
<b>Barium</b>	<b>324</b>	1.06	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.353</b>	0.106	"	"	"	"	"	"	
<b>Chromium</b>	<b>10.1</b>	0.531	"	"	"	"	"	"	
<b>Copper</b>	<b>7.03</b>	1.06	"	"	"	"	"	"	
<b>Lead</b>	<b>11.4</b>	0.106	"	"	"	"	"	"	
<b>Nickel</b>	<b>10.7</b>	0.531	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.142</b>	0.0531	"	"	"	"	"	"	
Silver	ND	0.106	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS02**  
**1407045-02 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>25.5</b>	10.6 mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.172</b>	0.0147	mg/kg dry	1	1407076	07/09/14	07/10/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.988	mg/kg dry	1	1407079	07/10/14	07/11/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>9.11</b>	1.00	mg/kg	1	1407097	07/11/14	07/11/14	Calculation	

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

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1840</b>	11.8	mg/kg dry	1	1407091	07/11/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>774</b>	5.88	"	"	"	"	"	"	
<b>Sodium</b>	<b>94.2</b>	5.88	"	"	"	"	"	"	

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**SS02**  
**1407045-02 (Soil)**

**Summit Scientific**

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

Sodium Adsorption Ratio	1.68	units	1	1407089	07/10/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)
-------------------------	------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.463	0.0100	mmhos/cm	1	1407068	07/09/14	07/09/14	SM 2510B	

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28	0.100	pH Units	"	1407072	07/09/14	07/09/14	EPA 9045	

Date Sampled: **07/08/14 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.0		%	"	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**CS01**  
**1407045-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 07/08/14 11:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1407070	07/09/14	07/09/14	8015M	

Date Sampled: 07/08/14 11:45

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

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

Date Sampled: 07/08/14 11:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407071	07/09/14	07/09/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 07/08/14 11:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: 07/08/14 11:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**CS01**  
**1407045-03 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/08/14 11:45

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		83.9 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		77.3 %	50-150		"	"	"	"	

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

Date Sampled: 07/08/14 11:45

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	7.16	0.0867	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	
Barium	326	0.867	"	"	"	"	"	"	
Cadmium	0.317	0.0867	"	"	"	"	"	"	
Chromium	6.82	0.434	"	"	"	"	"	"	
Copper	9.08	0.867	"	"	"	"	"	"	
Lead	10.5	0.0867	"	"	"	"	"	"	
Nickel	9.63	0.434	"	"	"	"	"	"	
Selenium	0.280	0.0434	"	"	"	"	"	"	
Silver	ND	0.0867	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**CS01**  
**1407045-03 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>28.7</b>	8.67 mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.0915</b>	0.0129	mg/kg dry	1	1407076	07/09/14	07/10/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.937	mg/kg dry	1	1407079	07/10/14	07/11/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>5.88</b>	1.00	mg/kg	1	1407097	07/11/14	07/11/14	Calculation	

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

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1090</b>	10.8	mg/kg dry	1	1407091	07/11/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>284</b>	5.40	"	"	"	"	"	"	
<b>Sodium</b>	<b>402</b>	5.40	"	"	"	"	"	"	

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**CS01**  
**1407045-03 (Soil)**

**Summit Scientific**

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

Sodium Adsorption Ratio	4.13	units	1	1407089	07/10/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)
-------------------------	------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.77	0.0100	mmhos/cm	1	1407068	07/09/14	07/09/14	SM 2510B	

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31	0.100	pH Units	"	1407072	07/09/14	07/09/14	EPA 9045	

Date Sampled: **07/08/14 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.6		%	"	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**CS02**  
**1407045-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	1407070	07/09/14	07/09/14	8015M	

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

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

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407071	07/09/14	07/09/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.5	0.50	"	"	"	"	"	"	

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**CS02**  
**1407045-04 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407083	07/10/14	07/10/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
<b>Phenanthrene</b>	<b>0.00903</b>	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/08/14 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		83.4 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		76.1 %	50-150		"	"	"	"	

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

Date Sampled: 07/08/14 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	8.11	0.0894	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	
Barium	457	0.894	"	"	"	"	"	"	
Cadmium	0.223	0.0894	"	"	"	"	"	"	
Chromium	10.6	0.447	"	"	"	"	"	"	
Copper	7.46	0.894	"	"	"	"	"	"	
Lead	12.1	0.0894	"	"	"	"	"	"	
Nickel	12.1	0.447	"	"	"	"	"	"	
Selenium	0.270	0.0447	"	"	"	"	"	"	
Silver	ND	0.0894	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**CS02**  
**1407045-04 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>26.9</b>	8.94 mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.115</b>	0.0134	mg/kg dry	1	1407076	07/09/14	07/10/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.940	mg/kg dry	1	1407079	07/10/14	07/11/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>9.66</b>	1.00	mg/kg	1	1407097	07/11/14	07/11/14	Calculation	

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

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1290</b>	11.0	mg/kg dry	1	1407091	07/11/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>519</b>	5.51	"	"	"	"	"	"	
<b>Sodium</b>	<b>282</b>	5.51	"	"	"	"	"	"	

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**CS02**  
**1407045-04 (Soil)**

**Summit Scientific**

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

Sodium Adsorption Ratio	0.460	units	1	1407089	07/10/14	07/11/14	EPA 6020/Mod. USDA60 6(2, 3A)
-------------------------	-------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.22	0.0100	mmhos/cm	1	1407068	07/09/14	07/09/14	SM 2510B	

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.60	0.100	pH Units	"	1407072	07/09/14	07/09/14	EPA 9045	

Date Sampled: **07/08/14 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.7		%	"	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**BG01**  
**1407045-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/08/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>6.27</b>	0.0862	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	

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

Date Sampled: **07/08/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>96.4</b>		%	1	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**BG02**  
**1407045-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/08/14 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>3.08</b>	0.0770	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	

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

Date Sampled: **07/08/14 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>97.3</b>		%	1	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**BG03**  
**1407045-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/08/14 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	10.1	0.0831	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	

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

Date Sampled: **07/08/14 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.8		%	1	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**BG04**  
**1407045-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/08/14 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>4.19</b>	0.0835	mg/kg dry	1	1407069	07/09/14	07/10/14	EPA 6020A	

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

Date Sampled: **07/08/14 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>97.9</b>		%	1	1407077	07/09/14	07/10/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**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 1407070 - EPA 3550A**

**Blank (1407070-BLK1)**

Prepared & Analyzed: 07/09/14

C10-C28 (DRO) ND 50 mg/kg

**LCS (1407070-BS1)**

Prepared & Analyzed: 07/09/14

C10-C28 (DRO) 481 50 mg/kg 501 95.9 73-134

**Matrix Spike (1407070-MS1)**

**Source: 1407043-01**

Prepared & Analyzed: 07/09/14

C10-C28 (DRO) 413 50 mg/kg 469 ND 88.1 50-148

**Matrix Spike Dup (1407070-MSD1)**

**Source: 1407043-01**

Prepared & Analyzed: 07/09/14

C10-C28 (DRO) 423 50 mg/kg 492 ND 86.0 50-148 2.33 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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**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 1407071 - EPA 5030 Soil MS**

**Blank (1407071-BLK1)**

Prepared & Analyzed: 07/09/14

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	0.0471		"	0.0397		119	23-173			
Surrogate: Toluene-d8	0.0444		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	21-167			

**LCS (1407071-BS1)**

Prepared & Analyzed: 07/09/14

Benzene	0.112	0.0020	mg/kg	0.100		112	58-130			
Toluene	0.116	0.0050	"	0.100		116	61-134			
Ethylbenzene	0.117	0.0050	"	0.0992		118	74-139			
m,p-Xylene	0.232	0.010	"	0.200		116	73-137			
o-Xylene	0.109	0.0050	"	0.0984		110	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0445		"	0.0397		112	23-173			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		102	21-167			

**Matrix Spike (1407071-MS1)**

Source: 1407054-01

Prepared & Analyzed: 07/09/14

Benzene	0.140	0.0020	mg/kg	0.0963	0.0285	116	30-131			
Toluene	0.213	0.0050	"	0.0963	0.132	83.4	30-134			
Ethylbenzene	0.127	0.0050	"	0.0956	0.00574	127	22-153			
m,p-Xylene	0.286	0.010	"	0.192	0.0902	102	10-159			
o-Xylene	0.138	0.0050	"	0.0948	0.0318	112	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0382		103	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0385		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0377		"	0.0385		97.9	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**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 1407071 - EPA 5030 Soil MS**

Matrix Spike Dup (1407071-MSD1)		Source: 1407054-01			Prepared & Analyzed: 07/09/14					
Benzene	0.182	0.0020	mg/kg	0.0949	0.0285	162	30-131	26.3	34	QM-07
Toluene	0.395	0.0050	"	0.0949	0.132	276	30-134	59.9	30	QM-07
Ethylbenzene	0.132	0.0050	"	0.0941	0.00574	134	22-153	4.08	24	
m,p-Xylene	0.389	0.010	"	0.189	0.0902	158	10-159	30.7	68	
o-Xylene	0.180	0.0050	"	0.0934	0.0318	159	31-151	26.7	38	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0391		"	0.0377		104	23-173			
Surrogate: Toluene-d8	0.0386		"	0.0380		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0366		"	0.0380		96.4	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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407083 - EPA 5030 Soil MS**

**Blank (1407083-BLK1)**

Prepared & Analyzed: 07/10/14

Acenaphthene	ND	0.00500	mg/kg
Acenaphthylene	ND	0.00500	"
Anthracene	ND	0.00500	"
Benzo (a) anthracene	ND	0.00500	"
Benzo (b) fluoranthene	ND	0.00500	"
Benzo (k) fluoranthene	ND	0.00500	"
Benzo (g,h,i) perylene	ND	0.00500	"
Benzo (a) pyrene	ND	0.00500	"
Chrysene	ND	0.00500	"
Dibenz (a,h) anthracene	ND	0.00500	"
Fluoranthene	ND	0.00500	"
Fluorene	ND	0.00500	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"
2-Methylnaphthalene	ND	0.00500	"
Naphthalene	ND	0.00500	"
Phenanthrene	ND	0.00500	"
Pyrene	ND	0.00500	"

Surrogate: 2-Methylnaphthalene-d10	0.0318	"	0.0346	91.9	50-150
Surrogate: Fluoranthene-d10	0.0317	"	0.0348	91.0	50-150

**LCS (1407083-BS1)**

Prepared & Analyzed: 07/10/14

Acenaphthene	0.0296	0.00500	mg/kg	0.0333	88.9	50-150
Acenaphthylene	0.0293	0.00500	"	0.0333	87.8	50-150
Anthracene	0.0270	0.00500	"	0.0333	80.9	50-150
Benzo (a) anthracene	0.0302	0.00500	"	0.0333	90.7	50-150
Benzo (b) fluoranthene	0.0301	0.00500	"	0.0333	90.4	50-150
Benzo (k) fluoranthene	0.0284	0.00500	"	0.0333	85.3	50-150
Benzo (g,h,i) perylene	0.0327	0.00500	"	0.0333	98.2	50-150
Benzo (a) pyrene	0.0312	0.00500	"	0.0333	93.7	50-150
Chrysene	0.0294	0.00500	"	0.0333	88.3	50-150
Dibenz (a,h) anthracene	0.0311	0.00500	"	0.0333	93.4	50-150
Fluoranthene	0.0259	0.00500	"	0.0333	77.7	50-150
Fluorene	0.0312	0.00500	"	0.0333	93.5	50-150
Indeno (1,2,3-cd) pyrene	0.0327	0.00500	"	0.0333	98.0	50-150
2-Methylnaphthalene	0.0301	0.00500	"	0.0332	90.6	0-200
Naphthalene	0.0287	0.00500	"	0.0333	86.1	50-150
Phenanthrene	0.0303	0.00500	"	0.0333	91.0	50-150
Pyrene	0.0309	0.00500	"	0.0333	92.8	50-150

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407083 - EPA 5030 Soil MS**

**LCS (1407083-BS1)**

Prepared & Analyzed: 07/10/14

Surrogate: 2-Methylnaphthalene-d10	0.0307		mg/kg	0.0346		88.7	50-150
Surrogate: Fluoranthene-d10	0.0283		"	0.0348		81.4	50-150

**Duplicate (1407083-DUP1)**

Source: 1407045-03

Prepared & Analyzed: 07/10/14

Acenaphthene	ND	0.00500	mg/kg		ND		200
Acenaphthylene	ND	0.00500	"		ND		200
Anthracene	ND	0.00500	"		ND		200
Benzo (a) anthracene	ND	0.00500	"		ND		200
Benzo (b) fluoranthene	ND	0.00500	"		ND		200
Benzo (k) fluoranthene	ND	0.00500	"		ND		200
Benzo (g,h,i) perylene	ND	0.00500	"		ND		200
Benzo (a) pyrene	ND	0.00500	"		ND		200
Chrysene	ND	0.00500	"		ND		200
Dibenz (a,h) anthracene	ND	0.00500	"		ND		200
Fluoranthene	ND	0.00500	"		ND		200
Fluorene	ND	0.00500	"		ND		200
Indeno (1,2,3-cd) pyrene	ND	0.00500	"		ND		200
2-Methylnaphthalene	0.00239	0.00500	"		0.00293		20.1 200
Naphthalene	ND	0.00500	"		ND		200
Phenanthrene	ND	0.00500	"		ND		200
Pyrene	ND	0.00500	"		ND		200

Surrogate: 2-Methylnaphthalene-d10	0.0296		"	0.0346		85.5	50-150
Surrogate: Fluoranthene-d10	0.0267		"	0.0348		76.6	50-150

**Matrix Spike (1407083-MS1)**

Source: 1407045-02

Prepared & Analyzed: 07/10/14

Acenaphthene	0.0294	0.00500	mg/kg	0.0333	ND	88.3	50-150
Acenaphthylene	0.0304	0.00500	"	0.0333	ND	91.3	50-150
Anthracene	0.0255	0.00500	"	0.0333	ND	76.4	50-150
Benzo (a) anthracene	0.0349	0.00500	"	0.0333	ND	105	50-150
Benzo (b) fluoranthene	0.0382	0.00500	"	0.0333	ND	115	50-150
Benzo (k) fluoranthene	0.0296	0.00500	"	0.0333	ND	88.8	50-150
Benzo (g,h,i) perylene	0.0170	0.00500	"	0.0333	ND	51.0	50-150
Benzo (a) pyrene	0.0308	0.00500	"	0.0333	ND	92.4	50-150
Chrysene	0.0394	0.00500	"	0.0333	0.00832	93.2	50-150
Dibenz (a,h) anthracene	0.0181	0.00500	"	0.0333	ND	54.3	50-150
Fluoranthene	0.0235	0.00500	"	0.0333	ND	70.6	50-150
Fluorene	0.0337	0.00500	"	0.0333	ND	101	50-150
Indeno (1,2,3-cd) pyrene	0.0193	0.00500	"	0.0333	ND	58.0	50-150

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407083 - EPA 5030 Soil MS**

Matrix Spike (1407083-MS1)		Source: 1407045-02			Prepared & Analyzed: 07/10/14					
2-Methylnaphthalene	0.0662	0.00500	mg/kg	0.0332	ND	199	0-200			
Naphthalene	0.0403	0.00500	"	0.0333	0.00443	108	50-150			
Phenanthrene	0.0350	0.00500	"	0.0333	ND	105	50-150			
Pyrene	0.0419	0.00500	"	0.0333	0.00238	119	50-150			
Surrogate: 2-Methylnaphthalene-d10	0.0308		"	0.0346		89.1	50-150			
Surrogate: Fluoranthene-d10	0.0248		"	0.0348		71.3	50-150			

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**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 1407069 - EPA 3050B**

**Blank (1407069-BLK1)**

Prepared: 07/09/14 Analyzed: 07/10/14

Arsenic	ND	0.100	mg/kg wet
Arsenic	ND	0.100	"
Barium	ND	1.00	"
Cadmium	ND	0.100	"
Chromium	ND	0.500	"
Copper	ND	1.00	"
Lead	ND	0.100	"
Nickel	ND	0.500	"
Selenium	ND	0.0500	"
Silver	ND	0.100	"
Zinc	ND	10.0	"

**LCS (1407069-BS1)**

Prepared: 07/09/14 Analyzed: 07/10/14

Arsenic	4.51	0.100	mg/kg wet	5.00	90.1	80-120
Arsenic	4.77	0.100	"	5.00	95.5	80-120
Barium	48.2	1.00	"	50.0	96.4	80-120
Cadmium	0.492	0.100	"	0.500	98.4	80-120
Chromium	49.9	0.500	"	50.0	99.9	80-120
Copper	5.54	1.00	"	5.00	111	80-120
Lead	5.26	0.100	"	5.00	105	80-120
Nickel	5.16	0.500	"	5.00	103	80-120
Selenium	4.65	0.0500	"	5.00	93.1	80-120
Silver	0.504	0.100	"	0.500	101	80-120
Zinc	46.3	10.0	"	50.0	92.5	80-120

**LCS Dup (1407069-BSD1)**

Prepared: 07/09/14 Analyzed: 07/10/14

Arsenic	3.72	0.100	mg/kg wet	5.00	74.4	80-120	19.2	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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**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 1407069 - EPA 3050B**

Matrix Spike (1407069-MS1)		Source: 1407045-01			Prepared: 07/09/14		Analyzed: 07/10/14		
Arsenic	7.37	0.0865	mg/kg dry	4.32	5.71	38.5	75-125		QM-07
Arsenic	7.20	0.0865	"	4.32	5.46	40.2	75-125		QM-07
Barium	288	0.865	"	43.2	681	NR	75-125		QM-07
Cadmium	0.575	0.0865	"	0.432	0.253	74.4	75-125		QM-07
Chromium	49.0	0.432	"	43.2	13.5	82.2	75-125		
Copper	10.8	0.865	"	4.32	9.84	21.4	75-125		QM-07
Lead	16.1	0.0865	"	4.32	13.6	58.5	75-125		QM-07
Nickel	17.5	0.432	"	4.32	14.7	65.5	75-125		QM-07
Selenium	2.58	0.0432	"	4.32	0.290	53.0	75-125		QM-07
Silver	0.478	0.0865	"	0.432	0.101	87.2	75-125		
Zinc	53.7	8.65	"	43.2	31.9	50.3	75-125		QM-07

Matrix Spike Dup (1407069-MSD1)	Source: 1407045-01			Prepared: 07/09/14		Analyzed: 07/10/14				
Arsenic	5.53	0.0871	mg/kg dry	4.35	5.46	1.58	75-125	26.2	25	QM-07
Arsenic	5.84	0.0871	"	4.35	5.71	3.17	75-125	23.1	25	QM-07
Barium	241	0.871	"	43.5	681	NR	75-125	17.9	25	QM-07
Cadmium	0.540	0.0871	"	0.435	0.253	65.9	75-125	6.21	25	QM-07
Chromium	41.4	0.435	"	43.5	13.5	64.0	75-125	16.9	25	QM-07
Copper	8.87	0.871	"	4.35	9.84	NR	75-125	19.4	25	QM-07
Lead	13.5	0.0871	"	4.35	13.6	NR	75-125	17.7	25	QM-07
Nickel	13.5	0.435	"	4.35	14.7	NR	75-125	25.8	25	QM-07
Selenium	2.37	0.0435	"	4.35	0.290	47.8	75-125	8.49	25	QM-07
Silver	0.435	0.0871	"	0.435	0.101	76.7	75-125	9.46	25	
Zinc	46.2	8.71	"	43.5	31.9	32.8	75-125	14.9	25	QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**Total Mercury by EPA Method 7471/7470/245.1 - Quality Control**  
**Summit Scientific**

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

**Batch 1407076 - EPA 7471A**

**Blank (1407076-BLK1)**

Prepared: 07/09/14 Analyzed: 07/10/14

Mercury ND 0.0125 mg/kg wet

**LCS (1407076-BS1)**

Prepared: 07/09/14 Analyzed: 07/10/14

Mercury 0.420 0.0125 mg/kg wet 0.500 84.0 80-120

**Duplicate (1407076-DUP1)**

Source: 1407045-01

Prepared: 07/09/14 Analyzed: 07/10/14

Mercury 0.0348 0.0152 mg/kg dry 0.0244 35.0 20

**Matrix Spike (1407076-MS1)**

Source: 1407045-01

Prepared: 07/09/14 Analyzed: 07/10/14

Mercury 0.518 0.0150 mg/kg dry 0.600 0.0244 82.2 80-120

**Matrix Spike Dup (1407076-MSD1)**

Source: 1407045-01

Prepared: 07/09/14 Analyzed: 07/10/14

Mercury 0.517 0.0151 mg/kg dry 0.605 0.0244 81.4 80-120 0.137 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

**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 1407079 - 3060A\_Mod**

**Blank (1407079-BLK1)**

Prepared: 07/10/14 Analyzed: 07/11/14

Chromium, Hexavalent ND 1.00 mg/kg wet

**LCS (1407079-BS1)**

Prepared: 07/10/14 Analyzed: 07/11/14

Chromium, Hexavalent 18.9 1.00 mg/kg wet 20.0 94.5 80-120

**Matrix Spike (1407079-MS1)**

**Source: 1406236-01**

Prepared: 07/10/14 Analyzed: 07/11/14

Chromium, Hexavalent ND 1.01 mg/kg dry 20.1 ND 80-120 QM-07

**Matrix Spike Dup (1407079-MSD1)**

**Source: 1406236-01**

Prepared: 07/10/14 Analyzed: 07/11/14

Chromium, Hexavalent ND 1.03 mg/kg dry 20.5 ND 80-120 20 QM-07

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**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 1407091 - General Preparation**

**Blank (1407091-BLK1)**

Prepared & Analyzed: 07/11/14

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

**LCS (1407091-BS1)**

Prepared & Analyzed: 07/11/14

Calcium	1020	10.0	mg/kg wet	1000	102	80-120
Magnesium	1060	5.00	"	1000	106	80-120
Sodium	1050	5.00	"	1000	105	80-120

**Matrix Spike (1407091-MS1)**

Source: 1407045-01

Prepared & Analyzed: 07/11/14

Calcium	2570	12.6	mg/kg dry	1210	1690	72.7	75-125			QM-07
Magnesium	1490	6.32	"	1210	962	43.5	75-125			QM-07
Sodium	1550	6.32	"	1210	859	57.0	75-125			QM-07

**Matrix Spike Dup (1407091-MSD1)**

Source: 1407045-01

Prepared & Analyzed: 07/11/14

Calcium	2210	12.6	mg/kg dry	1230	1690	41.9	75-125	15.1	25	QM-07
Magnesium	1130	6.32	"	1230	962	13.4	75-125	27.5	25	QM-07
Sodium	1090	6.32	"	1230	859	19.2	75-125	34.2	25	QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/11/14 17:55

**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 1407068 - General Preparation**

**Blank (1407068-BLK1)**

Prepared & Analyzed: 07/09/14

Specific Conductance (EC) ND 0.0100 mmhos/cm

**Duplicate (1407068-DUP1)**

Source: 1407045-01

Prepared & Analyzed: 07/09/14

Specific Conductance (EC) 1.85 0.0100 mmhos/cm 1.86 0.765 20

**Batch 1407072 - General Preparation**

**LCS (1407072-BS1)**

Prepared & Analyzed: 07/09/14

pH 8.07 0.100 pH Units 8.00 101 0-200

**Duplicate (1407072-DUP1)**

Source: 1407045-01

Prepared & Analyzed: 07/09/14

pH 8.15 0.100 pH Units 8.06 1.11 20

**Batch 1407077 - General Preparation**

**Duplicate (1407077-DUP1)**

Source: 1407045-01

Prepared: 07/09/14 Analyzed: 07/10/14

% Solids 80.1 % 79.1 1.26 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/11/14 17:55

### Notes and Definitions

S-02      The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

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

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 19, 2014

Jake Janicek  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: BBC - Epperly 14C-23

Enclosed are the results of analyses for samples received by Summit Scientific on 07/16/14 10:15. 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' or 'Shrewsbury', 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EastWall@5'	1407094-01	Soil	07/14/14 14:45	07/16/14 10:15
WestWall@5'	1407094-02	Soil	07/14/14 15:15	07/16/14 10:15
CS03	1407094-03	Soil	07/14/14 15:45	07/16/14 10:15

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.*

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

Project: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

Summit Scientific

1407094

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

Client:	LT Environmental	Project Manager:	Jake Janick
Address:	820 Megan Ave, Unit B	E-Mail:	jjanick@lhw.com, rfishburn@lhw.com
City/State/Zip:	Rifle, CO 81659	Project Name:	Esperly 14C-23
Phone:	970-283-9985	Project Number:	Project Number = 027314020
Sampler Name:	Jake Janick		

Page 1 of 1

[illegible]

www.s2scientific.com



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

Project: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**EastWall@5'**  
**1407094-01 (Soil)**

### Summit Scientific

#### Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/14/14 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1300	50	mg/kg	1	1407129	07/16/14	07/16/14	8015M	

Date Sampled: 07/14/14 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.7 %	30-150		"	"	"	"	

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

Date Sampled: 07/14/14 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.91	0.020	mg/kg	10	1407130	07/16/14	07/16/14	EPA 8260B	
Toluene	0.18	0.050	"	"	"	"	"	"	
Ethylbenzene	2.3	0.050	"	"	"	"	"	"	
Xylenes (total)	45	0.050	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	3800	5.0	"	"	"	"	"	"	E

Date Sampled: 07/14/14 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		174 %	20-170		"	"	"	"	S-02
Surrogate: 4-Bromofluorobenzene		493 %	21-167		"	"	"	"	S-02

#### Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 07/14/14 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407131	07/16/14	07/16/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**EastWall@5'**  
**1407094-01 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Anthracene	ND	0.00500	mg/kg	1	1407131	07/16/14	07/16/14	EPA 8270D SIM
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"
<b>Benzo (b) fluoranthene</b>	<b>0.0292</b>	0.00500	"	"	"	"	"	"
<b>Benzo (k) fluoranthene</b>	<b>0.0142</b>	0.00500	"	"	"	"	"	"
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"
<b>Benzo (a) pyrene</b>	<b>0.0206</b>	0.00500	"	"	"	"	"	"
<b>Chrysene</b>	<b>0.0748</b>	0.00500	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"
Fluoranthene	ND	0.00500	"	"	"	"	"	"
<b>Fluorene</b>	<b>0.157</b>	0.00500	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"
<b>Naphthalene</b>	<b>1.05</b>	0.500	"	100	"	"	07/16/14	"
<b>Phenanthrene</b>	<b>0.644</b>	0.500	"	"	"	"	"	"
<b>Pyrene</b>	<b>0.0682</b>	0.00500	"	1	"	"	07/16/14	"

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		80.2 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		97.8 %	50-150		"	"	"	"	

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

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>5.16</b>	0.123	mg/kg dry	1	1407119	07/15/14	07/18/14	EPA 6020A	
<b>Barium</b>	<b>549</b>	0.123	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.323</b>	0.123	"	"	"	"	"	"	
<b>Chromium</b>	<b>9.91</b>	0.616	"	"	"	"	"	"	
<b>Copper</b>	<b>6.96</b>	0.616	"	"	"	"	"	"	
<b>Lead</b>	<b>15.2</b>	0.123	"	"	"	"	"	"	
<b>Nickel</b>	<b>13.1</b>	1.23	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.105</b>	0.0616	"	"	"	"	"	"	
Silver	ND	0.123	"	"	"	"	"	"	
<b>Zinc</b>	<b>45.7</b>	12.3	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**EastWall@5'**  
**1407094-01 (Soil)**

**Summit Scientific**

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

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0616	mg/kg dry	1	1407118	07/15/14	07/18/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.23	mg/kg dry	1	1407133	07/16/14	07/18/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	8.68	1.00	mg/kg	1	1407154	07/18/14	07/19/14	Calculation	

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

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1010	11.1	mg/kg dry	1	1407139	07/17/14	07/18/14	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	606	5.56	"	"	"	"	"	"	
Sodium	747	5.56	"	"	"	"	"	"	

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.59		units	"	1407144	07/17/14	07/18/14	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

**EastWall@5'**  
**1407094-01 (Soil)**

**Summit Scientific**

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

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

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.45</b>	0.0100	mmhos/cm	1	1407135	07/16/14	07/16/14	SM 2510B	

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.51</b>	0.100	pH Units	"	1407136	07/16/14	07/16/14	EPA 9045	

Date Sampled: **07/14/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>81.2</b>		%	"	1407137	07/17/14	07/17/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**WestWall@5'**  
**1407094-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	63	50	mg/kg	1	1407129	07/16/14	07/16/14	8015M	

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.1 %	30-150		"	"	"	"	

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

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0044	0.0020	mg/kg	1	1407130	07/16/14	07/16/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.086	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	12	0.50	"	"	"	"	"	"	

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407131	07/16/14	07/16/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**WestWall@5'**  
**1407094-02 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407131	07/16/14	07/16/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.0176</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.0164</b>	0.00500	"	"	"	"	"	"	
<b>Phenanthrene</b>	<b>0.0250</b>	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/14/14 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		68.3 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.3 %	50-150		"	"	"	"	

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

Date Sampled: 07/14/14 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>4.96</b>	0.126	mg/kg dry	1	1407119	07/15/14	07/19/14	EPA 6020A	
<b>Barium</b>	<b>355</b>	0.126	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.274</b>	0.126	"	"	"	"	"	"	
<b>Chromium</b>	<b>9.77</b>	0.632	"	"	"	"	"	"	
<b>Copper</b>	<b>6.11</b>	0.632	"	"	"	"	"	"	
<b>Lead</b>	<b>14.5</b>	0.126	"	"	"	"	"	"	
<b>Nickel</b>	<b>13.2</b>	1.26	"	"	"	"	"	"	
Selenium	ND	0.0632	"	"	"	"	"	"	
Silver	ND	0.126	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**WestWall@5'**  
**1407094-02 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>44.2</b>	12.6 mg/kg dry	1	1407119	07/15/14	07/19/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0556	mg/kg dry	1	1407118	07/15/14	07/18/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.26	mg/kg dry	1	1407133	07/16/14	07/18/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>8.51</b>	1.00	mg/kg	1	1407154	07/18/14	07/19/14	Calculation	

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

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>3220</b>	12.6	mg/kg dry	1	1407139	07/17/14	07/18/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>1280</b>	6.32	"	"	"	"	"	"	
<b>Sodium</b>	<b>447</b>	6.32	"	"	"	"	"	"	

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

**WestWall@5'**  
**1407094-02 (Soil)**

**Summit Scientific**

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

<b>Sodium Adsorption Ratio</b>	<b>1.69</b>	units	1	1407144	07/17/14	07/18/14	EPA 6020/Mod. USDA60 6(2, 3A)
--------------------------------	-------------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.858</b>	0.0100	mmhos/cm	1	1407135	07/16/14	07/16/14	SM 2510B	

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.58</b>	0.100	pH Units	"	1407136	07/16/14	07/16/14	EPA 9045	

Date Sampled: **07/14/14 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>79.1</b>		%	"	1407137	07/17/14	07/17/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

**CS03**  
**1407094-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>250</b>	50	mg/kg	1	1407129	07/16/14	07/16/14	8015M	

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		90.0 %	30-150		"	"	"	"	

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

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.023</b>	0.0020	mg/kg	1	1407130	07/16/14	07/16/14	EPA 8260B	
<b>Toluene</b>	<b>0.14</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.036</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>2.0</b>	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>32</b>	0.50	"	"	"	"	"	"	

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		91.8 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		122 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407131	07/16/14	07/16/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**CS03**  
**1407094-03 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407131	07/16/14	07/16/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.00597</b>	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.101</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.309</b>	0.0500	"	10	"	"	07/16/14	"	
<b>Phenanthrene</b>	<b>0.145</b>	0.00500	"	1	"	"	07/16/14	"	
<b>Pyrene</b>	<b>0.00805</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		80.4 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.8 %	50-150		"	"	"	"	

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

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>10.6</b>	0.115	mg/kg dry	1	1407119	07/15/14	07/19/14	EPA 6020A	
<b>Barium</b>	<b>746</b>	0.115	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.321</b>	0.115	"	"	"	"	"	"	
<b>Chromium</b>	<b>7.65</b>	0.573	"	"	"	"	"	"	
<b>Copper</b>	<b>6.76</b>	0.573	"	"	"	"	"	"	
<b>Lead</b>	<b>14.5</b>	0.115	"	"	"	"	"	"	
<b>Nickel</b>	<b>10.5</b>	1.15	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.111</b>	0.0573	"	"	"	"	"	"	
Silver	ND	0.115	"	"	"	"	"	"	
<b>Zinc</b>	<b>43.1</b>	11.5	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**CS03**  
**1407094-03 (Soil)**

**Summit Scientific**

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

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0573	mg/kg dry	1	1407118	07/15/14	07/18/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.15	mg/kg dry	1	1407133	07/16/14	07/18/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	6.50	1.00	mg/kg	1	1407154	07/18/14	07/19/14	Calculation	

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

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1560	10.1	mg/kg dry	1	1407139	07/17/14	07/18/14	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	627	5.03	"	"	"	"	"	"	
Sodium	456	5.03	"	"	"	"	"	"	

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.47		units	"	1407144	07/17/14	07/18/14	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

**CS03**  
**1407094-03 (Soil)**

**Summit Scientific**

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

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

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.90</b>	0.0100	mmhos/cm	1	1407135	07/16/14	07/16/14	SM 2510B	

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.91</b>	0.100	pH Units	"	1407136	07/16/14	07/16/14	EPA 9045	

Date Sampled: **07/14/14 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>87.3</b>		%	"	1407137	07/17/14	07/17/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

**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 1407129 - EPA 3550A**

**Blank (1407129-BLK1)**

Prepared & Analyzed: 07/16/14

C10-C28 (DRO) ND 50 mg/kg

**LCS (1407129-BS1)**

Prepared & Analyzed: 07/16/14

C10-C28 (DRO) 426 50 mg/kg 499 85.4 73-134

**Matrix Spike (1407129-MS1)**

**Source: 1407094-02**

Prepared & Analyzed: 07/16/14

C10-C28 (DRO) 490 50 mg/kg 501 63.1 85.1 50-148

**Matrix Spike Dup (1407129-MSD1)**

**Source: 1407094-02**

Prepared & Analyzed: 07/16/14

C10-C28 (DRO) 474 50 mg/kg 462 63.1 88.9 50-148 3.25 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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**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 1407130 - EPA 5030 Soil MS**

**Blank (1407130-BLK1)**

Prepared & Analyzed: 07/16/14

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	0.0386		"	0.0377		102	23-173			
Surrogate: Toluene-d8	0.0382		"	0.0380		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0380		101	21-167			

**LCS (1407130-BS1)**

Prepared & Analyzed: 07/16/14

Benzene	0.116	0.0020	mg/kg	0.0980		118	58-130			
Toluene	0.118	0.0050	"	0.0980		120	61-134			
Ethylbenzene	0.128	0.0050	"	0.0973		132	74-139			
m,p-Xylene	0.249	0.010	"	0.196		127	73-137			
o-Xylene	0.119	0.0050	"	0.0965		123	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0377		"	0.0389		96.9	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0392		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0392		97.6	21-167			

**Matrix Spike (1407130-MS1)**

Source: 1407094-02

Prepared & Analyzed: 07/16/14

Benzene	0.120	0.0020	mg/kg	0.0977	0.00438	119	30-131			
Toluene	0.119	0.0050	"	0.0977	ND	122	30-134			
Ethylbenzene	0.132	0.0050	"	0.0969	0.00489	131	22-153			
m,p-Xylene	0.355	0.010	"	0.195	0.0713	146	10-159			
o-Xylene	0.145	0.0050	"	0.0961	0.0142	136	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0388		103	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0391		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0391		97.1	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**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 1407130 - EPA 5030 Soil MS**

Matrix Spike Dup (1407130-MSD1)	Source: 1407094-02			Prepared & Analyzed: 07/16/14						
Benzene	0.118	0.0020	mg/kg	0.0960	0.00438	118	30-131	2.30	34	
Toluene	0.115	0.0050	"	0.0960	ND	120	30-134	3.21	30	
Ethylbenzene	0.127	0.0050	"	0.0952	0.00489	128	22-153	4.03	24	
m,p-Xylene	0.280	0.010	"	0.192	0.0713	109	10-159	23.7	68	
o-Xylene	0.131	0.0050	"	0.0944	0.0142	124	31-151	10.0	38	
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0381		102	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0384		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0384		97.9	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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407131 - EPA 5030 Soil MS**

**Blank (1407131-BLK1)**

Prepared & Analyzed: 07/16/14

Acenaphthene	ND	0.00500	mg/kg
Acenaphthylene	ND	0.00500	"
Anthracene	ND	0.00500	"
Benzo (a) anthracene	ND	0.00500	"
Benzo (b) fluoranthene	ND	0.00500	"
Benzo (k) fluoranthene	ND	0.00500	"
Benzo (g,h,i) perylene	ND	0.00500	"
Benzo (a) pyrene	ND	0.00500	"
Chrysene	ND	0.00500	"
Dibenz (a,h) anthracene	ND	0.00500	"
Fluoranthene	ND	0.00500	"
Fluorene	ND	0.00500	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"
2-Methylnaphthalene	ND	0.00500	"
Naphthalene	ND	0.00500	"
Phenanthrene	ND	0.00500	"
Pyrene	ND	0.00500	"

Surrogate: 2-Methylnaphthalene-d10	0.0309		"	0.0346	89.2	50-150
Surrogate: Fluoranthene-d10	0.0299		"	0.0348	85.8	50-150

**LCS (1407131-BS1)**

Prepared & Analyzed: 07/16/14

Acenaphthene	0.0306	0.00500	mg/kg	0.0333	91.9	50-150
Acenaphthylene	0.0305	0.00500	"	0.0333	91.5	50-150
Anthracene	0.0290	0.00500	"	0.0333	86.9	50-150
Benzo (a) anthracene	0.0315	0.00500	"	0.0333	94.5	50-150
Benzo (b) fluoranthene	0.0320	0.00500	"	0.0333	96.1	50-150
Benzo (k) fluoranthene	0.0300	0.00500	"	0.0333	89.9	50-150
Benzo (g,h,i) perylene	0.0327	0.00500	"	0.0333	98.1	50-150
Benzo (a) pyrene	0.0318	0.00500	"	0.0333	95.5	50-150
Chrysene	0.0308	0.00500	"	0.0333	92.5	50-150
Dibenz (a,h) anthracene	0.0330	0.00500	"	0.0333	99.0	50-150
Fluoranthene	0.0267	0.00500	"	0.0333	80.2	50-150
Fluorene	0.0322	0.00500	"	0.0333	96.6	50-150
Indeno (1,2,3-cd) pyrene	0.0333	0.00500	"	0.0333	99.9	50-150
2-Methylnaphthalene	0.0311	0.00500	"	0.0332	93.6	0-200
Naphthalene	0.0292	0.00500	"	0.0333	87.7	50-150
Phenanthrene	0.0306	0.00500	"	0.0333	91.7	50-150
Pyrene	0.0330	0.00500	"	0.0333	99.1	50-150

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407131 - EPA 5030 Soil MS**

**LCS (1407131-BS1)**

Prepared & Analyzed: 07/16/14

Surrogate: 2-Methylnaphthalene-d10	0.0286		mg/kg	0.0346		82.6	50-150
Surrogate: Fluoranthene-d10	0.0256		"	0.0348		73.5	50-150

**Duplicate (1407131-DUP1)**

Source: 1407094-02

Prepared & Analyzed: 07/16/14

Acenaphthene	ND	0.00500	mg/kg		ND		200
Acenaphthylene	ND	0.00500	"		ND		200
Anthracene	ND	0.00500	"		ND		200
Benzo (a) anthracene	ND	0.00500	"		ND		200
Benzo (b) fluoranthene	ND	0.00500	"		ND		200
Benzo (k) fluoranthene	ND	0.00500	"		ND		200
Benzo (g,h,i) perylene	ND	0.00500	"		ND		200
Benzo (a) pyrene	ND	0.00500	"		ND		200
Chrysene	0.00435	0.00500	"		ND		200
Dibenz (a,h) anthracene	ND	0.00500	"		ND		200
Fluoranthene	ND	0.00500	"		ND		200
Fluorene	0.0214	0.00500	"		0.0176		19.2 200
Indeno (1,2,3-cd) pyrene	ND	0.00500	"		ND		200
2-Methylnaphthalene	ND	0.00500	"		ND		200
Naphthalene	0.0157	0.00500	"		0.0164		4.23 200
Phenanthrene	0.0258	0.00500	"		0.0250		3.08 200
Pyrene	0.00180	0.00500	"		0.00195		8.03 200
Surrogate: 2-Methylnaphthalene-d10	0.0273		"	0.0346		78.9	50-150
Surrogate: Fluoranthene-d10	0.0229		"	0.0348		65.8	50-150

**Matrix Spike (1407131-MS1)**

Source: 1407094-01

Prepared & Analyzed: 07/16/14

Acenaphthene	0.0382	0.00500	mg/kg	0.0333	ND	114	50-150	
Acenaphthylene	0.0361	0.00500	"	0.0333	ND	108	50-150	
Anthracene	0.526	0.00500	"	0.0333	ND	NR	50-150	E
Benzo (a) anthracene	0.106	0.00500	"	0.0333	ND	319	50-150	QM-07
Benzo (b) fluoranthene	0.0627	0.00500	"	0.0333	0.0292	101	50-150	
Benzo (k) fluoranthene	0.0324	0.00500	"	0.0333	0.0142	54.5	50-150	
Benzo (g,h,i) perylene	0.0202	0.00500	"	0.0333	0.00270	52.5	50-150	
Benzo (a) pyrene	0.0305	0.00500	"	0.0333	0.0206	29.6	50-150	QM-07
Chrysene	0.102	0.00500	"	0.0333	0.0748	81.3	50-150	
Dibenz (a,h) anthracene	0.0220	0.00500	"	0.0333	ND	66.0	50-150	
Fluoranthene	0.0719	0.00500	"	0.0333	ND	216	50-150	QM-07
Fluorene	0.115	0.00500	"	0.0333	0.157	NR	50-150	QM-07
Indeno (1,2,3-cd) pyrene	0.0189	0.00500	"	0.0333	ND	56.7	50-150	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407131 - EPA 5030 Soil MS**

Matrix Spike (1407131-MS1)		Source: 1407094-01			Prepared & Analyzed: 07/16/14					
2-Methylnaphthalene	2.26	0.00500	mg/kg	0.0332	ND	NR	0-200			E
Naphthalene	0.476	0.00500	"	0.0333	1.05	NR	50-150			E
Phenanthrene	0.813	0.00500	"	0.0333	0.644	508	50-150			E
Pyrene	0.112	0.00500	"	0.0333	0.0682	132	50-150			
Surrogate: 2-Methylnaphthalene-d10	0.0271		"	0.0346		78.4	50-150			
Surrogate: Fluoranthene-d10	0.0241		"	0.0348		69.3	50-150			

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**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 1407119 - EPA 3050B**

**Blank (1407119-BLK1)**

Prepared: 07/15/14 Analyzed: 07/18/14

Arsenic	ND	0.100	mg/kg wet
Barium	ND	0.500	"
Cadmium	ND	0.100	"
Chromium	ND	0.500	"
Copper	ND	0.500	"
Lead	ND	0.100	"
Nickel	ND	1.00	"
Selenium	ND	0.0500	"
Silver	ND	0.100	"
Zinc	ND	10.0	"

**LCS (1407119-BS2)**

Prepared: 07/15/14 Analyzed: 07/18/14

Arsenic	4.59	0.100	mg/kg wet	4.00	115	80-120
Barium	44.7	0.500	"	40.0	112	80-120
Cadmium	0.443	0.100	"	0.400	111	80-120
Chromium	45.7	0.500	"	40.0	114	80-120
Copper	3.29	0.500	"	4.00	82.2	80-120
Lead	4.69	0.100	"	4.00	117	80-120
Nickel	5.26	1.00	"	4.00	132	80-120
Selenium	4.72	0.0500	"	4.00	118	80-120
Silver	0.451	0.100	"	0.400	113	80-120
Zinc	45.2	10.0	"	40.0	113	80-120

**Matrix Spike (1407119-MS1)**

Source: 1407069-01

Prepared: 07/15/14 Analyzed: 07/18/14

Arsenic	8.91	0.126	mg/kg dry	4.64	4.03	105	75-125	
Barium	1020	0.631	"	46.4	877	317	75-125	QM-07
Cadmium	2.72	0.126	"	0.464	1.28	312	75-125	QM-07
Chromium	60.7	0.631	"	46.4	7.75	114	75-125	
Copper	21.5	0.631	"	4.64	13.2	178	75-125	QM-07
Lead	19.6	0.126	"	4.64	12.6	151	75-125	QM-07
Nickel	26.2	1.26	"	4.64	13.3	278	75-125	QM-07
Selenium	5.27	0.0631	"	4.64	1.24	86.9	75-125	
Silver	0.739	0.126	"	0.464	0.103	137	75-125	QM-07
Zinc	133	12.6	"	46.4	54.4	170	75-125	QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

**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 1407119 - EPA 3050B**

Matrix Spike Dup (1407119-MSD1)		Source: 1407069-01			Prepared: 07/15/14		Analyzed: 07/18/14			
Arsenic	8.70	0.126	mg/kg dry	4.74	4.03	98.5	75-125	2.49	25	
Barium	1080	0.631	"	47.4	877	431	75-125	5.46	25	QM-07
Cadmium	2.19	0.126	"	0.474	1.28	193	75-125	21.7	25	QM-07
Chromium	59.9	0.631	"	47.4	7.75	110	75-125	1.31	25	
Copper	19.2	0.631	"	4.74	13.2	125	75-125	11.4	25	
Lead	21.5	0.126	"	4.74	12.6	188	75-125	9.42	25	QM-07
Nickel	22.9	1.26	"	4.74	13.3	202	75-125	13.6	25	QM-07
Selenium	4.62	0.0631	"	4.74	1.24	71.3	75-125	13.2	25	QM-07
Silver	0.749	0.126	"	0.474	0.103	136	75-125	1.33	25	QM-07
Zinc	127	12.6	"	47.4	54.4	152	75-125	5.21	25	QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**Total Mercury by EPA Method 7471/7470/245.1 - Quality Control**  
**Summit Scientific**

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

**Batch 1407118 - EPA 7471A**

**Blank (1407118-BLK1)**

Prepared: 07/15/14 Analyzed: 07/18/14

Mercury ND 0.0500 mg/kg wet

**LCS (1407118-BS1)**

Prepared: 07/15/14 Analyzed: 07/18/14

Mercury 0.441 0.0500 mg/kg wet 0.500 88.2 80-120

**Matrix Spike (1407118-MS1)**

Source: 1407069-01

Prepared: 07/15/14 Analyzed: 07/18/14

Mercury 0.597 0.0631 mg/kg dry 0.606 ND 98.4 80-120

**Matrix Spike Dup (1407118-MSD1)**

Source: 1407069-01

Prepared: 07/15/14 Analyzed: 07/18/14

Mercury 0.527 0.0631 mg/kg dry 0.605 ND 87.0 80-120 12.5 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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**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 1407133 - 3060A\_Mod**

**Blank (1407133-BLK1)**

Prepared: 07/16/14 Analyzed: 07/18/14

Chromium, Hexavalent ND 1.00 mg/kg wet

**LCS (1407133-BS1)**

Prepared: 07/16/14 Analyzed: 07/18/14

Chromium, Hexavalent 25.1 1.00 mg/kg wet 20.0 126 80-120

**LCS Dup (1407133-BSD1)**

Prepared: 07/16/14 Analyzed: 07/18/14

Chromium, Hexavalent 20.0 1.00 mg/kg wet 20.0 100 80-120 22.7 20

**Duplicate (1407133-DUP1)**

Source: 1407094-01

Prepared: 07/16/14 Analyzed: 07/18/14

Chromium, Hexavalent ND 1.23 mg/kg dry ND 20

**Matrix Spike (1407133-MS1)**

Source: 1407094-01

Prepared: 07/16/14 Analyzed: 07/18/14

Chromium, Hexavalent ND 1.23 mg/kg dry 22.6 ND 80-120

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

**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 1407139 - General Preparation**

**Blank (1407139-BLK1)**

Prepared: 07/17/14 Analyzed: 07/18/14

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

**LCS (1407139-BS1)**

Prepared: 07/17/14 Analyzed: 07/18/14

Calcium	1010	10.0	mg/kg wet	1000	101	80-120
Magnesium	986	5.00	"	1000	98.6	80-120
Sodium	991	5.00	"	1000	99.1	80-120

**LCS Dup (1407139-BSD1)**

Prepared: 07/17/14 Analyzed: 07/18/14

Calcium	989	10.0	mg/kg wet	1000	98.9	80-120	1.73	20
Magnesium	975	5.00	"	1000	97.5	80-120	1.16	20
Sodium	995	5.00	"	1000	99.5	80-120	0.393	20

**Matrix Spike (1407139-MS1)**

Source: 1407094-01

Prepared: 07/17/14 Analyzed: 07/18/14

Calcium	2530	10.8	mg/kg dry	1080	1010	141	75-125		QM-07
Magnesium	1500	5.38	"	1080	606	83.6	75-125		
Sodium	1720	5.38	"	1080	747	90.7	75-125		

**Matrix Spike Dup (1407139-MSD1)**

Source: 1407094-01

Prepared: 07/17/14 Analyzed: 07/18/14

Calcium	2500	10.6	mg/kg dry	1060	1010	140	75-125	1.39	25	QM-07
Magnesium	1350	5.29	"	1060	606	70.2	75-125	10.9	25	QM-07
Sodium	1620	5.29	"	1060	747	82.7	75-125	5.98	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/19/14 00:46

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 1407135 - General Preparation

Blank (1407135-BLK1)

Prepared & Analyzed: 07/16/14

Specific Conductance (EC) ND 0.0100 mmhos/cm

Duplicate (1407135-DUP1)

Source: 1407094-02

Prepared & Analyzed: 07/16/14

Specific Conductance (EC) 0.884 0.0100 mmhos/cm 0.858 3.08 20

Batch 1407136 - General Preparation

LCS (1407136-BS1)

Prepared & Analyzed: 07/16/14

pH 8.14 0.100 pH Units 8.00 102 0-200

Duplicate (1407136-DUP1)

Source: 1407094-02

Prepared & Analyzed: 07/16/14

pH 8.49 0.100 pH Units 8.58 1.05 20

Batch 1407137 - General Preparation

Duplicate (1407137-DUP1)

Source: 1407094-01

Prepared & Analyzed: 07/17/14

% Solids 81.3 % 81.2 0.123 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/19/14 00:46

### Notes and Definitions

S-02      The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

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.

E          The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

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

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 23, 2014

Jake Janicek  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: BBC - Epperly 14C-23

Enclosed are the results of analyses for samples received by Summit Scientific on 07/22/14 10:30. 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' or 'Shrewsbury', 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS08	1407131-01	Soil	07/21/14 14:00	07/22/14 10:30
SS03	1407131-02	Soil	07/21/14 14:10	07/22/14 10:30
SS04	1407131-03	Soil	07/21/14 14:15	07/22/14 10:30
SS05	1407131-04	Soil	07/21/14 14:20	07/22/14 10:30
SS06	1407131-05	Soil	07/21/14 14:30	07/22/14 10:30
SS07	1407131-06	Soil	07/21/14 14:35	07/22/14 10:30

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

Summit Scientific  
1407/31

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-374-9333 Fax

LT Environmental  
Address: 820 Megan Ave, Unit B  
City, State/Zip: Rifle, CO 81650  
Phone: 970-285-9985 Fax: 970-285-2467  
Site Name: Ryan Zemis  
Project Manager: Jake Janicek  
E-Mail: jjanicek@ltenv.com, rfishburn@ltenv.com, LJanicek@ltenv.com  
Project Name: Epperly 14C-23  
Project Number: 0273-14020

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Analyze For:										Special Instructions	
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	TPH GRO/DRO	BTEX	Table 910 Metals	Table 910 PAHs	PCB	Pb	SAR				
SS02	7/21/14	1440	2		X				X				X	X	X	X					
SS03		1410	2		X				X				X	X	X	X					
SS04		1415	2		X				X				X	X	X	X					
SS05		1420	2		X				X				X	X	X	X					
SS06		1430	2		X				X				X	X	X	X					
SS07	7/21/14	1435	2		X				X				X	X	X	X					
[Signature]																					
Requested by: [Signature]				Date/Time: 7/21/14 1400				Received by: [Signature]				Date/Time: 7/22/14 10:30				Turn Around Time (Check): Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard <input type="checkbox"/>				Notes:	
Requested by: [Signature]				Date/Time: 7/21/14 1400				Received by: [Signature]				Date/Time: 7/22/14 10:30				Turn Around Time (Check): Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard <input type="checkbox"/>				Notes:	
Requested by: [Signature]				Date/Time: 7/21/14 1400				Received by: [Signature]				Date/Time: 7/22/14 10:30				Turn Around Time (Check): Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> Standard <input type="checkbox"/>				Notes:	





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

Project: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS08**  
**1407131-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1407175	07/22/14	07/22/14	8015M	

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.1 %	30-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407174	07/22/14	07/22/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/22/14	EPA 8270D SIM	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS08**  
**1407131-01 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Acenaphthylene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/22/14	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		76.0 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.5 %	50-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	6.44	0.109	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A	
Barium	232	1.09	"	"	"	"	"	"	
Cadmium	0.262	0.109	"	"	"	"	"	"	
Chromium	6.61	1.09	"	"	"	"	"	"	
Copper	8.50	0.543	"	"	"	"	"	"	
Lead	10.5	0.109	"	"	"	"	"	"	
Nickel	9.06	0.543	"	"	"	"	"	"	
Selenium	0.320	0.109	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS08**  
**1407131-01 (Soil)**

**Summit Scientific**

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

Silver	ND	0.109	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A
Zinc	24.7	10.9	"	"	"	"	"	"

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	0.0772	0.0460	mg/kg dry	1	1407169	07/22/14	07/22/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.09	mg/kg dry	1	1407171	07/22/14	07/22/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	5.52	1.00	mg/kg	1	1407187	07/23/14	07/23/14	Calculation	

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

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1070	10.9	mg/kg dry	1	1407173	07/22/14	07/22/14	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	326	5.43	"	"	"	"	"	"	
Sodium	169	27.1	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS08**  
**1407131-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.16		units	1	1407188	07/23/14	07/23/14	EPA 6020/Mod. USDA60 6(2, 3A)	

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

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.509	0.0100	mmhos/cm	1	1407176	07/22/14	07/22/14	SM 2510B	

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.08	0.100	pH Units	"	1407177	07/22/14	07/22/14	EPA 9045	

Date Sampled: **07/21/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.1		%	"	1407186	07/23/14	07/23/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS03**  
**1407131-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>1300</b>	50	mg/kg	1	1407175	07/22/14	07/22/14	8015M	

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		95.8 %	30-150		"	"	"	"	

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

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.35</b>	0.020	mg/kg	10	1407174	07/22/14	07/22/14	EPA 8260B	
<b>Toluene</b>	<b>0.81</b>	0.050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.27</b>	0.050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>13</b>	0.050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>440</b>	5.0	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		112 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		84.5 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		141 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/22/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS03**  
**1407131-02 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Anthracene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/22/14	EPA 8270D SIM
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"
<b>Benzo (a) pyrene</b>	<b>0.0163</b>	0.00500	"	"	"	"	"	"
<b>Chrysene</b>	<b>0.0353</b>	0.00500	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"
Fluoranthene	ND	0.00500	"	"	"	"	"	"
<b>Fluorene</b>	<b>0.165</b>	0.00500	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"
<b>Naphthalene</b>	<b>0.465</b>	0.0500	"	10	"	"	"	"
<b>Phenanthrene</b>	<b>0.403</b>	0.0500	"	"	"	"	"	"
<b>Pyrene</b>	<b>0.0325</b>	0.00500	"	1	"	"	"	"

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		101 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		86.4 %	50-150		"	"	"	"	

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

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>8.01</b>	0.113	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A	
<b>Barium</b>	<b>829</b>	1.13	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.335</b>	0.113	"	"	"	"	"	"	
<b>Chromium</b>	<b>7.79</b>	1.13	"	"	"	"	"	"	
<b>Copper</b>	<b>9.36</b>	0.566	"	"	"	"	"	"	
<b>Lead</b>	<b>13.6</b>	0.113	"	"	"	"	"	"	
<b>Nickel</b>	<b>10.5</b>	0.566	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.393</b>	0.113	"	"	"	"	"	"	
Silver	ND	0.113	"	"	"	"	"	"	
<b>Zinc</b>	<b>26.6</b>	11.3	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS03**  
**1407131-02 (Soil)**

**Summit Scientific**

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

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	<b>0.0690</b>	0.0566	mg/kg dry	1	1407169	07/22/14	07/22/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.13	mg/kg dry	1	1407171	07/22/14	07/22/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	<b>6.66</b>	1.00	mg/kg	1	1407187	07/23/14	07/23/14	Calculation	

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

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>1150</b>	11.3	mg/kg dry	1	1407173	07/22/14	07/22/14	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	<b>480</b>	5.66	"	"	"	"	"	"	
Sodium	<b>365</b>	28.3	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>2.28</b>		units	"	1407188	07/23/14	07/23/14	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS03**  
**1407131-02 (Soil)**

**Summit Scientific**

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

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

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.710</b>	0.0100	mmhos/cm	1	1407176	07/22/14	07/22/14	SM 2510B	

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.79</b>	0.100	pH Units	"	1407177	07/22/14	07/22/14	EPA 9045	

Date Sampled: **07/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>88.4</b>		%	"	1407186	07/23/14	07/23/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS04**  
**1407131-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	410	50	mg/kg	1	1407175	07/22/14	07/22/14	8015M	

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		116 %	30-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407174	07/22/14	07/22/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		134 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/22/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS04**  
**1407131-03 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/22/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		76.1 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		60.9 %	50-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	11.5	0.102	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A	
Barium	324	1.02	"	"	"	"	"	"	
Cadmium	0.279	0.102	"	"	"	"	"	"	
Chromium	6.25	1.02	"	"	"	"	"	"	
Copper	7.16	0.511	"	"	"	"	"	"	
Lead	13.1	0.102	"	"	"	"	"	"	
Nickel	7.71	0.511	"	"	"	"	"	"	
Selenium	0.309	0.102	"	"	"	"	"	"	
Silver	ND	0.102	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS04**  
**1407131-03 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>22.3</b>	10.2 mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.0695</b>	0.0511	mg/kg dry	1	1407169	07/22/14	07/22/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.02	mg/kg dry	1	1407171	07/22/14	07/22/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>5.23</b>	1.00	mg/kg	1	1407187	07/23/14	07/23/14	Calculation	

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

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>657</b>	10.2	mg/kg dry	1	1407173	07/22/14	07/22/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>134</b>	5.11	"	"	"	"	"	"	
<b>Sodium</b>	<b>186</b>	25.5	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS04**  
**1407131-03 (Soil)**

**Summit Scientific**

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

<b>Sodium Adsorption Ratio</b>	<b>1.73</b>	units	1	1407188	07/23/14	07/23/14	EPA 6020/Mod. USDA60 6(2, 3A)
--------------------------------	-------------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.675</b>	0.0100	mmhos/cm	1	1407176	07/22/14	07/22/14	SM 2510B	

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.50</b>	0.100	pH Units	"	1407177	07/22/14	07/22/14	EPA 9045	

Date Sampled: **07/21/14 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>97.9</b>		%	"	1407186	07/23/14	07/23/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS05**  
**1407131-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 07/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	1407175	07/22/14	07/22/14	8015M	

Date Sampled: 07/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		99.9 %	30-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0018	mg/kg	1	1407174	07/22/14	07/22/14	EPA 8260B	
Toluene	ND	0.0045	"	"	"	"	"	"	
Ethylbenzene	ND	0.0045	"	"	"	"	"	"	
Xylenes (total)	ND	0.0045	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.45	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		129 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: 07/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/23/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS05**  
**1407131-04 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/23/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:20

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		75.7 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.0 %	50-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:20

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	12.4	0.103	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A	
Barium	580	1.03	"	"	"	"	"	"	
Cadmium	0.353	0.103	"	"	"	"	"	"	
Chromium	6.31	1.03	"	"	"	"	"	"	
Copper	8.27	0.515	"	"	"	"	"	"	
Lead	14.5	0.103	"	"	"	"	"	"	
Nickel	9.17	0.515	"	"	"	"	"	"	
Selenium	0.245	0.103	"	"	"	"	"	"	
Silver	ND	0.103	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS05**  
**1407131-04 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>23.7</b>	10.3 mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.110</b>	0.0444	mg/kg dry	1	1407169	07/22/14	07/22/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	1.03	mg/kg dry	1	1407171	07/22/14	07/22/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>5.28</b>	1.00	mg/kg	1	1407187	07/23/14	07/23/14	Calculation	

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

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>872</b>	10.3	mg/kg dry	1	1407173	07/22/14	07/22/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>256</b>	5.15	"	"	"	"	"	"	
<b>Sodium</b>	<b>361</b>	25.7	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS05**  
**1407131-04 (Soil)**

**Summit Scientific**

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

<b>Sodium Adsorption Ratio</b>	<b>2.76</b>	units	1	1407188	07/23/14	07/23/14	EPA 6020/Mod. USDA60 6(2, 3A)
--------------------------------	-------------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.96</b>	0.0100	mmhos/cm	1	1407176	07/22/14	07/22/14	SM 2510B	

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.38</b>	0.100	pH Units	"	1407177	07/22/14	07/22/14	EPA 9045	

Date Sampled: **07/21/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>97.1</b>		%	"	1407186	07/23/14	07/23/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS06**  
**1407131-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>180</b>	50	mg/kg	1	1407175	07/22/14	07/22/14	8015M	

Date Sampled: **07/21/14 14:30**

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

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

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407174	07/22/14	07/22/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.050</b>	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.69</b>	0.50	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		128 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.8 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/23/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS06**  
**1407131-05 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/23/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.0127</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
<b>Phenanthrene</b>	<b>0.0182</b>	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		72.6 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.6 %	50-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	9.51	0.101	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A	
Barium	453	1.01	"	"	"	"	"	"	
Cadmium	0.323	0.101	"	"	"	"	"	"	
Chromium	6.61	1.01	"	"	"	"	"	"	
Copper	7.41	0.506	"	"	"	"	"	"	
Lead	12.7	0.101	"	"	"	"	"	"	
Nickel	12.6	0.506	"	"	"	"	"	"	
Selenium	0.301	0.101	"	"	"	"	"	"	
Silver	ND	0.101	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS06**  
**1407131-05 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>22.4</b>	10.1 mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.0876</b>	0.0460	mg/kg dry	1	1407169	07/22/14	07/22/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	1.01	mg/kg dry	1	1407171	07/22/14	07/22/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>5.60</b>	1.00	mg/kg	1	1407187	07/23/14	07/23/14	Calculation	

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

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>553</b>	10.1	mg/kg dry	1	1407173	07/22/14	07/22/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>126</b>	5.06	"	"	"	"	"	"	
<b>Sodium</b>	<b>246</b>	25.3	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS06**  
**1407131-05 (Soil)**

**Summit Scientific**

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

<b>Sodium Adsorption Ratio</b>	<b>2.46</b>	units	1	1407188	07/23/14	07/23/14	EPA 6020/Mod. USDA60 6(2, 3A)
--------------------------------	-------------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.804</b>	0.0100	mmhos/cm	1	1407176	07/22/14	07/22/14	SM 2510B	

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.82</b>	0.100	pH Units	"	1407177	07/22/14	07/22/14	EPA 9045	

Date Sampled: **07/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>98.9</b>		%	"	1407186	07/23/14	07/23/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS07**  
**1407131-06 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	1407175	07/22/14	07/22/14	8015M	

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

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

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1407174	07/22/14	07/22/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		129 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/23/14	EPA 8270D SIM	
Acenaphthylene	ND	0.00500	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**SS07**

**1407131-06 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	1407178	07/22/14	07/23/14	EPA 8270D SIM	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/21/14 14:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		75.9 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.2 %	50-150		"	"	"	"	

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

Date Sampled: 07/21/14 14:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	7.01	0.102	mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A	
Barium	594	1.02	"	"	"	"	"	"	
Cadmium	0.263	0.102	"	"	"	"	"	"	
Chromium	7.43	1.02	"	"	"	"	"	"	
Copper	7.50	0.508	"	"	"	"	"	"	
Lead	11.7	0.102	"	"	"	"	"	"	
Nickel	8.96	0.508	"	"	"	"	"	"	
Selenium	0.250	0.102	"	"	"	"	"	"	
Silver	ND	0.102	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS07**  
**1407131-06 (Soil)**

**Summit Scientific**

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

<b>Zinc</b>	<b>22.3</b>	10.2 mg/kg dry	1	1407172	07/22/14	07/22/14	EPA 6020A
-------------	-------------	----------------	---	---------	----------	----------	-----------

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Mercury</b>	<b>0.0705</b>	0.0508	mg/kg dry	1	1407169	07/22/14	07/22/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	1.02	mg/kg dry	1	1407171	07/22/14	07/22/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium+3 Calculated</b>	<b>6.41</b>	1.00	mg/kg	1	1407187	07/23/14	07/23/14	Calculation	

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

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>511</b>	10.2	mg/kg dry	1	1407173	07/22/14	07/22/14	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>126</b>	5.08	"	"	"	"	"	"	
<b>Sodium</b>	<b>175</b>	25.4	"	"	"	"	"	"	

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**SS07**

**1407131-06 (Soil)**

**Summit Scientific**

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

<b>Sodium Adsorption Ratio</b>	<b>1.80</b>	units	1	1407188	07/23/14	07/23/14	EPA 6020/Mod. USDA60 6(2, 3A)
--------------------------------	-------------	-------	---	---------	----------	----------	--

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

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.687</b>	0.0100	mmhos/cm	1	1407176	07/22/14	07/22/14	SM 2510B	

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.89</b>	0.100	pH Units	"	1407177	07/22/14	07/22/14	EPA 9045	

Date Sampled: **07/21/14 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>98.4</b>		%	"	1407186	07/23/14	07/23/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**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 1407175 - EPA 3550A**

**Blank (1407175-BLK1)**

Prepared & Analyzed: 07/22/14

C10-C28 (DRO) ND 50 mg/kg

**LCS (1407175-BS1)**

Prepared & Analyzed: 07/22/14

C10-C28 (DRO) 534 50 mg/kg 501 107 73-134

**Matrix Spike (1407175-MS1)**

**Source: 1407132-01**

Prepared & Analyzed: 07/22/14

C10-C28 (DRO) 506 50 mg/kg 486 ND 104 50-148

**Matrix Spike Dup (1407175-MSD1)**

**Source: 1407132-01**

Prepared & Analyzed: 07/22/14

C10-C28 (DRO) 515 50 mg/kg 488 ND 105 50-148 1.77 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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**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 1407174 - EPA 5030 Soil MS**

**Blank (1407174-BLK1)**

Prepared & Analyzed: 07/22/14

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	0.0479		"	0.0397		121	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0419		"	0.0400		105	21-167			

**LCS (1407174-BS1)**

Prepared & Analyzed: 07/22/14

Benzene	0.0988	0.0020	mg/kg	0.100		98.8	58-130			
Toluene	0.104	0.0050	"	0.100		104	61-134			
Ethylbenzene	0.106	0.0050	"	0.0992		107	74-139			
m,p-Xylene	0.218	0.010	"	0.200		109	73-137			
o-Xylene	0.106	0.0050	"	0.0984		108	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0467		"	0.0397		118	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		97.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	21-167			

**Matrix Spike (1407174-MS1)**

Source: 1407131-01

Prepared & Analyzed: 07/22/14

Benzene	0.0985	0.0020	mg/kg	0.0978	ND	101	30-131			
Toluene	0.0999	0.0050	"	0.0978	ND	102	30-134			
Ethylbenzene	0.101	0.0050	"	0.0971	ND	105	22-153			
m,p-Xylene	0.208	0.010	"	0.195	ND	106	10-159			
o-Xylene	0.104	0.0050	"	0.0963	ND	108	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0489		"	0.0388		126	23-173			
Surrogate: Toluene-d8	0.0389		"	0.0391		99.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0391		104	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**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 1407174 - EPA 5030 Soil MS**

Matrix Spike Dup (1407174-MSD1)	Source: 1407131-01			Prepared & Analyzed: 07/22/14						
Benzene	0.0900	0.0020	mg/kg	0.0940	ND	95.8	30-131	9.00	34	
Toluene	0.0920	0.0050	"	0.0940	ND	97.9	30-134	8.19	30	
Ethylbenzene	0.0908	0.0050	"	0.0932	ND	97.4	22-153	11.1	24	
m,p-Xylene	0.191	0.010	"	0.188	ND	102	10-159	8.15	68	
o-Xylene	0.0943	0.0050	"	0.0925	ND	102	31-151	9.54	38	
Surrogate: 1,2-Dichloroethane-d4	0.0468		"	0.0373		125	23-173			
Surrogate: Toluene-d8	0.0372		"	0.0376		99.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0376		99.5	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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407178 - EPA 5030 Soil MS**

**Blank (1407178-BLK1)**

Prepared & Analyzed: 07/22/14

Acenaphthene	ND	0.00500	mg/kg							
Acenaphthylene	ND	0.00500	"							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Benzo (g,h,i) perylene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Naphthalene	ND	0.00500	"							
Phenanthrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0251		"	0.0346	72.6	50-150				
Surrogate: Fluoranthene-d10	0.0243		"	0.0348	69.9	50-150				

**LCS (1407178-BS1)**

Prepared & Analyzed: 07/22/14

Acenaphthene	0.0286	0.00500	mg/kg	0.0333	85.7	50-150				
Acenaphthylene	0.0283	0.00500	"	0.0333	84.9	50-150				
Anthracene	0.0274	0.00500	"	0.0333	82.2	50-150				
Benzo (a) anthracene	0.0306	0.00500	"	0.0333	91.7	50-150				
Benzo (b) fluoranthene	0.0314	0.00500	"	0.0333	94.1	50-150				
Benzo (k) fluoranthene	0.0301	0.00500	"	0.0333	90.2	50-150				
Benzo (g,h,i) perylene	0.0337	0.00500	"	0.0333	101	50-150				
Benzo (a) pyrene	0.0315	0.00500	"	0.0333	94.6	50-150				
Chrysene	0.0295	0.00500	"	0.0333	88.6	50-150				
Dibenz (a,h) anthracene	0.0314	0.00500	"	0.0333	94.3	50-150				
Fluoranthene	0.0272	0.00500	"	0.0333	81.5	50-150				
Fluorene	0.0305	0.00500	"	0.0333	91.6	50-150				
Indeno (1,2,3-cd) pyrene	0.0328	0.00500	"	0.0333	98.3	50-150				
2-Methylnaphthalene	0.0300	0.00500	"	0.0332	90.3	0-200				
Naphthalene	0.0281	0.00500	"	0.0333	84.2	50-150				
Phenanthrene	0.0304	0.00500	"	0.0333	91.2	50-150				
Pyrene	0.0323	0.00500	"	0.0333	96.8	50-150				

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407178 - EPA 5030 Soil MS**

**LCS (1407178-BS1)**

Prepared & Analyzed: 07/22/14

Surrogate: 2-Methylnaphthalene-d10	0.0272		mg/kg	0.0346		78.7	50-150
Surrogate: Fluoranthene-d10	0.0251		"	0.0348		72.2	50-150

**Duplicate (1407178-DUP1)**

Source: 1407131-03

Prepared & Analyzed: 07/22/14

Acenaphthene	ND	0.00500	mg/kg		ND		200
Acenaphthylene	ND	0.00500	"		ND		200
Anthracene	ND	0.00500	"		ND		200
Benzo (a) anthracene	ND	0.00500	"		ND		200
Benzo (b) fluoranthene	ND	0.00500	"		ND		200
Benzo (k) fluoranthene	ND	0.00500	"		ND		200
Benzo (g,h,i) perylene	ND	0.00500	"		ND		200
Benzo (a) pyrene	ND	0.00500	"		ND		200
Chrysene	ND	0.00500	"		ND		200
Dibenz (a,h) anthracene	ND	0.00500	"		ND		200
Fluoranthene	ND	0.00500	"		ND		200
Fluorene	ND	0.00500	"		ND		200
Indeno (1,2,3-cd) pyrene	ND	0.00500	"		ND		200
2-Methylnaphthalene	ND	0.00500	"		ND		200
Naphthalene	ND	0.00500	"		ND		200
Phenanthrene	ND	0.00500	"		ND		200
Pyrene	ND	0.00500	"		ND		200

Surrogate: 2-Methylnaphthalene-d10	0.0262		"	0.0346		75.7	50-150
Surrogate: Fluoranthene-d10	0.0234		"	0.0348		67.2	50-150

**Matrix Spike (1407178-MS1)**

Source: 1407131-01

Prepared & Analyzed: 07/22/14

Acenaphthene	0.0285	0.00500	mg/kg	0.0333	ND	85.4	50-150
Acenaphthylene	0.0282	0.00500	"	0.0333	ND	84.5	50-150
Anthracene	0.0253	0.00500	"	0.0333	ND	75.8	50-150
Benzo (a) anthracene	0.0301	0.00500	"	0.0333	ND	90.4	50-150
Benzo (b) fluoranthene	0.0303	0.00500	"	0.0333	ND	90.9	50-150
Benzo (k) fluoranthene	0.0275	0.00500	"	0.0333	ND	82.4	50-150
Benzo (g,h,i) perylene	0.0310	0.00500	"	0.0333	ND	93.0	50-150
Benzo (a) pyrene	0.0295	0.00500	"	0.0333	ND	88.6	50-150
Chrysene	0.0281	0.00500	"	0.0333	ND	84.2	50-150
Dibenz (a,h) anthracene	0.0292	0.00500	"	0.0333	ND	87.6	50-150
Fluoranthene	0.0259	0.00500	"	0.0333	ND	77.6	50-150
Fluorene	0.0309	0.00500	"	0.0333	ND	92.8	50-150
Indeno (1,2,3-cd) pyrene	0.0304	0.00500	"	0.0333	ND	91.2	50-150

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407178 - EPA 5030 Soil MS**

Matrix Spike (1407178-MS1)		Source: 1407131-01			Prepared & Analyzed: 07/22/14					
2-Methylnaphthalene	0.0287	0.00500	mg/kg	0.0332	ND	86.4	0-200			
Naphthalene	0.0279	0.00500	"	0.0333	ND	83.8	50-150			
Phenanthrene	0.0318	0.00500	"	0.0333	ND	95.5	50-150			
Pyrene	0.0329	0.00500	"	0.0333	ND	98.6	50-150			
Surrogate: 2-Methylnaphthalene-d10	0.0278		"	0.0346		80.3	50-150			
Surrogate: Fluoranthene-d10	0.0240		"	0.0348		69.0	50-150			

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**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 1407172 - EPA 3050B**

**Blank (1407172-BLK1)**

Prepared & Analyzed: 07/22/14

Arsenic	ND	0.100	mg/kg wet
Barium	ND	1.00	"
Cadmium	ND	0.100	"
Chromium	ND	1.00	"
Copper	ND	0.500	"
Lead	ND	0.100	"
Nickel	ND	0.500	"
Selenium	ND	0.100	"
Silver	ND	0.100	"
Zinc	ND	10.0	"

**LCS (1407172-BS1)**

Prepared & Analyzed: 07/22/14

Arsenic	5.82	0.125	mg/kg wet	5.00	116	80-120
Barium	56.6	1.25	"	50.0	113	80-120
Cadmium	0.588	0.125	"	0.500	118	80-120
Chromium	60.0	1.25	"	50.0	120	80-120
Copper	5.16	0.625	"	5.00	103	80-120
Lead	6.35	0.125	"	5.00	127	80-120
Nickel	6.16	0.625	"	5.00	123	80-120
Selenium	4.97	0.125	"	5.00	99.4	80-120
Silver	0.682	0.125	"	0.500	136	80-120
Zinc	58.8	12.5	"	50.0	118	80-120

**Matrix Spike (1407172-MS1)**

Source: 1407131-01

Prepared & Analyzed: 07/22/14

Arsenic	11.1	0.109	mg/kg dry	4.34	6.44	108	75-125	
Barium	287	1.09	"	43.4	232	129	75-125	QM-07
Cadmium	0.784	0.109	"	0.434	0.262	120	75-125	
Chromium	54.4	1.09	"	43.4	6.61	110	75-125	
Copper	13.2	0.543	"	4.34	8.50	109	75-125	
Lead	17.0	0.109	"	4.34	10.5	149	75-125	QM-07
Nickel	14.3	0.543	"	4.34	9.06	121	75-125	
Selenium	4.39	0.109	"	4.34	0.320	93.8	75-125	
Silver	0.621	0.109	"	0.434	0.0551	130	75-125	QM-07
Zinc	59.5	10.9	"	43.4	24.7	80.2	75-125	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**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 1407172 - EPA 3050B**

Matrix Spike Dup (1407172-MSD1)		Source: 1407131-01			Prepared & Analyzed: 07/22/14						
Arsenic	9.81	0.109	mg/kg dry	4.21	6.44	80.0	75-125	12.7	25		
Barium	242	1.09	"	42.1	232	25.3	75-125	17.1	25		QM-07
Cadmium	0.947	0.109	"	0.421	0.262	163	75-125	18.8	25		QM-07
Chromium	45.6	1.09	"	42.1	6.61	92.7	75-125	17.5	25		
Copper	10.8	0.543	"	4.21	8.50	54.6	75-125	20.3	25		QM-07
Lead	14.6	0.109	"	4.21	10.5	95.6	75-125	15.5	25		
Nickel	11.9	0.543	"	4.21	9.06	67.2	75-125	18.5	25		QM-07
Selenium	3.93	0.109	"	4.21	0.320	85.7	75-125	11.3	25		
Silver	0.536	0.109	"	0.421	0.0551	114	75-125	14.7	25		
Zinc	51.6	10.9	"	42.1	24.7	63.9	75-125	14.3	25		QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**Total Mercury by EPA Method 7471/7470/245.1 - Quality Control**  
**Summit Scientific**

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

**Batch 1407169 - EPA 7471A**

**Blank (1407169-BLK1)**

Prepared: 07/21/14 Analyzed: 07/22/14

Mercury ND 0.0500 mg/kg wet

**LCS (1407169-BS1)**

Prepared: 07/21/14 Analyzed: 07/22/14

Mercury 0.527 0.0500 mg/kg wet 0.500 105 80-120

**Matrix Spike (1407169-MS1)**

Source: 1407101-01

Prepared: 07/21/14 Analyzed: 07/22/14

Mercury 0.823 0.0580 mg/kg dry 0.548 0.285 98.3 80-120

**Matrix Spike Dup (1407169-MSD1)**

Source: 1407101-01

Prepared: 07/21/14 Analyzed: 07/22/14

Mercury 0.901 0.0580 mg/kg dry 0.578 0.285 107 80-120 9.03 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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

**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 1407171 - 3060A\_Mod**

**Blank (1407171-BLK1)**

Prepared & Analyzed: 07/22/14

Chromium, Hexavalent ND 1.00 mg/kg wet

**LCS (1407171-BS1)**

Prepared & Analyzed: 07/22/14

Chromium, Hexavalent 20.7 1.00 mg/kg wet 20.0 104 80-120

**LCS Dup (1407171-BSD1)**

Prepared & Analyzed: 07/22/14

Chromium, Hexavalent 23.0 1.00 mg/kg wet 20.0 115 80-120 10.4 20

**Matrix Spike (1407171-MS1)**

**Source: 1407131-01**

Prepared & Analyzed: 07/22/14

Chromium, Hexavalent 16.4 1.09 mg/kg dry 21.7 ND 75.5 80-120 QM-07

**Matrix Spike Dup (1407171-MSD1)**

**Source: 1407131-01**

Prepared & Analyzed: 07/22/14

Chromium, Hexavalent 14.9 1.09 mg/kg dry 21.2 ND 70.1 80-120 9.53 20 QM-07

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

**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 1407173 - General Preparation**

**Blank (1407173-BLK1)**

Prepared & Analyzed: 07/22/14

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	25.0	"

**LCS (1407173-BS1)**

Prepared & Analyzed: 07/22/14

Calcium	932	10.0	mg/kg wet	1000	93.2	80-120
Magnesium	930	5.00	"	1000	93.0	80-120
Sodium	1010	25.0	"	1000	101	80-120

**Matrix Spike (1407173-MS1)**

Source: 1407131-01

Prepared & Analyzed: 07/22/14

Calcium	1530	10.9	mg/kg dry	998	1070	46.0	75-125		QM-07
Magnesium	940	5.43	"	998	326	61.6	75-125		QM-07
Sodium	941	27.1	"	998	169	77.3	75-125		

**Matrix Spike Dup (1407173-MSD1)**

Source: 1407131-01

Prepared & Analyzed: 07/22/14

Calcium	1890	10.9	mg/kg dry	1020	1070	80.2	75-125	21.1	25	
Magnesium	1040	5.43	"	1020	326	70.1	75-125	10.2	25	QM-07
Sodium	934	27.1	"	1020	169	74.8	75-125	0.662	25	QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/23/14 18:48

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 1407176 - General Preparation

Blank (1407176-BLK1)

Prepared & Analyzed: 07/22/14

Specific Conductance (EC) ND 0.0100 mmhos/cm

Duplicate (1407176-DUP1)

Source: 1407131-01

Prepared & Analyzed: 07/22/14

Specific Conductance (EC) 0.536 0.0100 mmhos/cm 0.509 5.21 20

Batch 1407177 - General Preparation

LCS (1407177-BS1)

Prepared & Analyzed: 07/22/14

pH 8.06 0.100 pH Units 8.00 101 0-200

Duplicate (1407177-DUP1)

Source: 1407131-01

Prepared & Analyzed: 07/22/14

pH 9.06 0.100 pH Units 9.08 0.221 20

Batch 1407186 - General Preparation

Duplicate (1407186-DUP1)

Source: 1407131-01

Prepared & Analyzed: 07/23/14

% Solids 91.9 % 92.1 0.217 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/23/14 18:48

### 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

---

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

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 28, 2014

Jake Janicek  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: BBC - Epperly 14C-23

Enclosed are the results of analyses for samples received by Summit Scientific on 07/25/14 08:50. 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' or 'Shrewsbury', 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EastWall02@6' bgs	1407149-01	Soil	07/24/14 09:15	07/25/14 08:50

1407149

Summit Scientific

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

Page 1 of 1

Client:	LT Environmental
Address:	820 Megan Ave. Unit B
City/State/Zip:	Rifle, CO 81659
Phone:	970-285-9985
Fac:	
Project Manager:	Jake Janick
E-Mail:	jjanick@ltenv.com, rfsburton@ltenv.com
Project Name:	Esperly 14C-23
Project Number:	Project Number = 027314020

[illegible]

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**EastWall02@6' bgs**  
**1407149-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	98	50	mg/kg	1	1407206	07/25/14	07/26/14	8015M	

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

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

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0018	mg/kg	1	1407205	07/25/14	07/25/14	EPA 8260B	
Toluene	ND	0.0045	"	"	"	"	"	"	
Ethylbenzene	ND	0.0045	"	"	"	"	"	"	
Xylenes (total)	ND	0.0045	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.45	"	"	"	"	"	"	

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1407203	07/25/14	07/25/14	EPA 8270D SIM	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**EastWall02@6' bgs**  
**1407149-01 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Acenaphthylene	ND	0.00500	mg/kg	1	1407203	07/25/14	07/25/14	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Phenanthrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		81.2 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.8 %	50-150		"	"	"	"	

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

Date Sampled: 07/24/14 09:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	10.7	0.113	mg/kg dry	1	1407199	07/25/14	07/25/14	EPA 6020A	
Barium	227	0.113	"	"	"	"	"	"	
Cadmium	0.879	0.113	"	"	"	"	"	"	
Chromium	8.62	0.564	"	"	"	"	"	"	
Copper	8.50	0.564	"	"	"	"	"	"	
Lead	20.3	0.113	"	"	"	"	"	"	
Nickel	16.3	0.113	"	"	"	"	"	"	
Selenium	0.456	0.0564	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**EastWall02@6' bgs**  
**1407149-01 (Soil)**

**Summit Scientific**

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

Silver	ND	0.113	mg/kg dry	1	1407199	07/25/14	07/25/14	EPA 6020A
Zinc	34.8	11.3	"	"	"	"	"	"

**Total Mercury by EPA Method 7471/7470/245.1**

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	0.141	0.0564	mg/kg dry	1	1407200	07/25/14	07/25/14	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.02	mg/kg dry	1	1407209	07/28/14	07/28/14	EPA 7196	

**Calculated Analytes**

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	7.60	1.00	mg/kg	1	1407210	07/28/14	07/28/14	Calculation	

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

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	808	33.9	mg/kg dry	1	1407201	07/25/14	07/25/14	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	314	5.64	"	"	"	"	"	"	
Sodium	357	5.64	"	"	"	"	"	"	

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

**EastWall02@6' bgs**  
**1407149-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>2.70</b>		units	1	1407216	07/28/14	07/28/14	EPA 6020/Mod. USDA60 6(2, 3A)	

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

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>2.47</b>	0.0100	mmhos/cm	1	1407197	07/24/14	07/25/14	SM 2510B	

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.45</b>	0.100	pH Units	"	1407198	07/25/14	07/25/14	EPA 9045	

Date Sampled: **07/24/14 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>88.6</b>		%	"	1407207	07/25/14	07/25/14	% 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

**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 1407206 - EPA 3550A**

**Blank (1407206-BLK1)**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) ND 50 mg/kg

**LCS (1407206-BS1)**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) 493 50 mg/kg 501 98.3 73-134

**LCS (1407206-BS2)**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) 499 50 mg/kg 500 99.9 73-134

**Matrix Spike (1407206-MS1)**

**Source: 1407149-01**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) 531 50 mg/kg 474 97.6 91.3 50-148

**Matrix Spike (1407206-MS2)**

**Source: 1407150-01**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) 2540 50 mg/kg 461 2430 23.5 50-148 QM-4X

**Matrix Spike Dup (1407206-MSD1)**

**Source: 1407149-01**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) 542 50 mg/kg 472 97.6 94.3 50-148 2.14 13

**Matrix Spike Dup (1407206-MSD2)**

**Source: 1407150-01**

Prepared: 07/25/14 Analyzed: 07/26/14

C10-C28 (DRO) 2520 50 mg/kg 466 2430 19.6 50-148 0.681 13 QM-4X

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**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 1407205 - EPA 5030 Soil MS**

**Blank (1407205-BLK1)**

Prepared & Analyzed: 07/25/14

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	0.0367		"	0.0382	96.0	23-173				
Surrogate: Toluene-d8	0.0392		"	0.0385	102	20-170				
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0385	102	21-167				

**LCS (1407205-BS1)**

Prepared & Analyzed: 07/25/14

Benzene	0.115	0.0020	mg/kg	0.0998	115	58-130				
Toluene	0.115	0.0050	"	0.0998	116	61-134				
Ethylbenzene	0.121	0.0050	"	0.0990	122	74-139				
m,p-Xylene	0.233	0.010	"	0.199	117	73-137				
o-Xylene	0.115	0.0050	"	0.0982	117	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0356		"	0.0396	89.8	23-173				
Surrogate: Toluene-d8	0.0412		"	0.0399	103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0399	98.6	21-167				

**LCS (1407205-BS2)**

Prepared & Analyzed: 07/25/14

Benzene	0.112	0.0020	mg/kg	0.0956	118	58-130				
Toluene	0.110	0.0050	"	0.0956	115	61-134				
Ethylbenzene	0.116	0.0050	"	0.0948	122	74-139				
m,p-Xylene	0.226	0.010	"	0.191	118	73-137				
o-Xylene	0.110	0.0050	"	0.0941	117	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0350		"	0.0380	92.3	23-173				
Surrogate: Toluene-d8	0.0393		"	0.0382	103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0382	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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**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 1407205 - EPA 5030 Soil MS**

Matrix Spike (1407205-MS1)		Source: 1407149-01			Prepared & Analyzed: 07/25/14					
Benzene	0.109	0.0020	mg/kg	0.0921	ND	118	30-131			
Toluene	0.107	0.0050	"	0.0921	ND	116	30-134			
Ethylbenzene	0.112	0.0050	"	0.0913	ND	123	22-153			
m,p-Xylene	0.217	0.010	"	0.184	ND	118	10-159			
o-Xylene	0.107	0.0050	"	0.0906	ND	119	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0368		"	0.0366		101	23-173			
Surrogate: Toluene-d8	0.0374		"	0.0368		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0368		98.9	21-167			

Matrix Spike (1407205-MS2)		Source: 1407150-01			Prepared & Analyzed: 07/25/14					
Benzene	0.112	0.0020	mg/kg	0.0965	ND	116	30-131			
Toluene	0.109	0.0050	"	0.0965	ND	113	30-134			
Ethylbenzene	0.118	0.0050	"	0.0958	ND	123	22-153			
m,p-Xylene	0.229	0.010	"	0.193	ND	119	10-159			
o-Xylene	0.111	0.0050	"	0.0950	ND	117	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0379		"	0.0383		98.8	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0386		99.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0386		95.5	21-167			

Matrix Spike Dup (1407205-MSD1)		Source: 1407149-01			Prepared & Analyzed: 07/25/14					
Benzene	0.108	0.0020	mg/kg	0.0942	ND	114	30-131	0.991	34	
Toluene	0.108	0.0050	"	0.0942	ND	115	30-134	1.33	30	
Ethylbenzene	0.115	0.0050	"	0.0934	ND	123	22-153	2.28	24	
m,p-Xylene	0.223	0.010	"	0.188	ND	118	10-159	2.48	68	
o-Xylene	0.110	0.0050	"	0.0927	ND	119	31-151	2.47	38	
Surrogate: 1,2-Dichloroethane-d4	0.0364		"	0.0374		97.3	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0377		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0377		101	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**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 1407205 - EPA 5030 Soil MS**

Matrix Spike Dup (1407205-MSD2)		Source: 1407150-01			Prepared & Analyzed: 07/25/14					
Benzene	0.115	0.0020	mg/kg	0.0990	ND	116	30-131	2.93	34	
Toluene	0.111	0.0050	"	0.0990	ND	112	30-134	2.22	30	
Ethylbenzene	0.123	0.0050	"	0.0982	ND	125	22-153	4.00	24	
m,p-Xylene	0.241	0.010	"	0.198	ND	122	10-159	5.12	68	
o-Xylene	0.116	0.0050	"	0.0974	ND	119	31-151	3.63	38	
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0393		100	23-173			
Surrogate: Toluene-d8	0.0390		"	0.0396		98.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0396		96.8	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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407203 - EPA 5030 Soil MS**

**Blank (1407203-BLK1)**

Prepared & Analyzed: 07/25/14

Acenaphthene	ND	0.00500	mg/kg							
Acenaphthylene	ND	0.00500	"							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Benzo (g,h,i) perylene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Naphthalene	ND	0.00500	"							
Phenanthrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0288		"	0.0346	83.3	50-150				
Surrogate: Fluoranthene-d10	0.0282		"	0.0348	81.0	50-150				

**LCS (1407203-BS1)**

Prepared & Analyzed: 07/25/14

Acenaphthene	0.0339	0.00500	mg/kg	0.0333	102	50-150				
Acenaphthylene	0.0320	0.00500	"	0.0333	96.1	50-150				
Anthracene	0.0335	0.00500	"	0.0333	100	50-150				
Benzo (a) anthracene	0.0332	0.00500	"	0.0333	99.7	50-150				
Benzo (b) fluoranthene	0.0333	0.00500	"	0.0333	99.8	50-150				
Benzo (k) fluoranthene	0.0333	0.00500	"	0.0333	99.8	50-150				
Benzo (g,h,i) perylene	0.0327	0.00500	"	0.0333	98.1	50-150				
Benzo (a) pyrene	0.0342	0.00500	"	0.0333	102	50-150				
Chrysene	0.0339	0.00500	"	0.0333	102	50-150				
Dibenz (a,h) anthracene	0.0299	0.00500	"	0.0333	89.6	50-150				
Fluoranthene	0.0304	0.00500	"	0.0333	91.2	50-150				
Fluorene	0.0339	0.00500	"	0.0333	102	50-150				
Indeno (1,2,3-cd) pyrene	0.0326	0.00500	"	0.0333	97.8	50-150				
2-Methylnaphthalene	0.0343	0.00500	"	0.0332	103	0-200				
Naphthalene	0.0325	0.00500	"	0.0333	97.6	50-150				
Phenanthrene	0.0340	0.00500	"	0.0333	102	50-150				
Pyrene	0.0370	0.00500	"	0.0333	111	50-150				

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407203 - EPA 5030 Soil MS**

**LCS (1407203-BS1)**

Prepared & Analyzed: 07/25/14

Surrogate: 2-Methylnaphthalene-d10	0.0323		mg/kg	0.0346	93.4	50-150
Surrogate: Fluoranthene-d10	0.0293		"	0.0348	84.2	50-150

**Duplicate (1407203-DUP1)**

Source: 1407150-01

Prepared & Analyzed: 07/25/14

Acenaphthene	ND	0.00500	mg/kg	ND		200
Acenaphthylene	ND	0.00500	"	ND		200
Anthracene	0.293	0.0500	"	0.237	21.1	200
Benzo (a) anthracene	ND	0.00500	"	ND		200
Benzo (b) fluoranthene	0.105	0.00500	"	0.0359	97.8	200
Benzo (k) fluoranthene	ND	0.00500	"	ND		200
Benzo (g,h,i) perylene	ND	0.00500	"	ND		200
Benzo (a) pyrene	0.0484	0.00500	"	0.0340	34.9	200
Chrysene	ND	0.00500	"	ND		200
Dibenz (a,h) anthracene	ND	0.00500	"	ND		200
Fluoranthene	ND	0.00500	"	ND		200
Fluorene	0.163	0.00500	"	0.111	37.5	200
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	ND		200
2-Methylnaphthalene	ND	0.00500	"	ND		200
Naphthalene	0.0713	0.00500	"	0.0703	1.44	200
Phenanthrene	ND	0.00500	"	ND		200
Pyrene	0.136	0.00500	"	0.101	29.6	200
Surrogate: 2-Methylnaphthalene-d10	0.00432		"	0.0346	12.5	50-150
Surrogate: Fluoranthene-d10	0.0288		"	0.0348	82.7	50-150

S-02

**Matrix Spike (1407203-MS1)**

Source: 1407149-01

Prepared & Analyzed: 07/25/14

Acenaphthene	0.0304	0.00500	mg/kg	0.0333	ND	91.3	50-150
Acenaphthylene	0.0290	0.00500	"	0.0333	ND	87.1	50-150
Anthracene	0.0294	0.00500	"	0.0333	ND	88.3	50-150
Benzo (a) anthracene	0.0330	0.00500	"	0.0333	ND	98.9	50-150
Benzo (b) fluoranthene	0.0332	0.00500	"	0.0333	ND	99.7	50-150
Benzo (k) fluoranthene	0.0295	0.00500	"	0.0333	ND	88.4	50-150
Benzo (g,h,i) perylene	0.0270	0.00500	"	0.0333	ND	80.9	50-150
Benzo (a) pyrene	0.0305	0.00500	"	0.0333	ND	91.4	50-150
Chrysene	0.0309	0.00500	"	0.0333	ND	92.6	50-150
Dibenz (a,h) anthracene	0.0252	0.00500	"	0.0333	ND	75.5	50-150
Fluoranthene	0.0281	0.00500	"	0.0333	ND	84.2	50-150
Fluorene	0.0319	0.00500	"	0.0333	ND	95.8	50-150
Indeno (1,2,3-cd) pyrene	0.0269	0.00500	"	0.0333	ND	80.8	50-150

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1407203 - EPA 5030 Soil MS**

Matrix Spike (1407203-MS1)		Source: 1407149-01			Prepared & Analyzed: 07/25/14					
2-Methylnaphthalene	0.0308	0.00500	mg/kg	0.0332	ND	92.7	0-200			
Naphthalene	0.0296	0.00500	"	0.0333	ND	88.9	50-150			
Phenanthrene	0.0342	0.00500	"	0.0333	ND	103	50-150			
Pyrene	0.0353	0.00500	"	0.0333	ND	106	50-150			
Surrogate: 2-Methylnaphthalene-d10	0.0286		"	0.0346		82.5	50-150			
Surrogate: Fluoranthene-d10	0.0247		"	0.0348		71.1	50-150			

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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

**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 1407199 - EPA 3050B**

**Blank (1407199-BLK1)**

Prepared & Analyzed: 07/25/14

Arsenic	ND	0.125	mg/kg wet
Barium	ND	0.125	"
Cadmium	ND	0.125	"
Chromium	ND	0.625	"
Copper	ND	0.625	"
Lead	ND	0.125	"
Nickel	ND	0.125	"
Selenium	ND	0.0625	"
Silver	ND	0.125	"
Zinc	ND	12.5	"

**LCS (1407199-BS1)**

Prepared & Analyzed: 07/25/14

Arsenic	103	0.250	mg/kg wet	99.6	104	69.3-130
Barium	252	0.250	"	310	81.4	74.2-126
Cadmium	147	0.250	"	182	80.9	73.6-126
Chromium	142	1.25	"	136	105	70.4-130
Copper	125	1.25	"	124	101	61.1-104
Lead	126	0.250	"	115	109	72.1-129
Nickel	155	0.250	"	153	101	73.2-126
Selenium	167	0.125	"	150	111	67.3-133
Silver	18.8	0.250	"	40.4	46.6	40.4-65.8
Zinc	190	25.0	"	161	118	68.3-132

**Duplicate (1407199-DUP1)**

Source: 1407149-01

Prepared & Analyzed: 07/25/14

Arsenic	12.1	0.113	mg/kg dry	10.7	12.6	20
Barium	208	0.113	"	227	8.66	20
Cadmium	0.840	0.113	"	0.879	4.44	20
Chromium	9.34	0.564	"	8.62	7.94	20
Copper	9.07	0.564	"	8.50	6.44	20
Lead	21.2	0.113	"	20.3	4.44	20
Nickel	18.4	0.113	"	16.3	12.0	20
Selenium	0.404	0.0564	"	0.456	12.3	20
Silver	0.0611	0.113	"	0.0732	18.0	20
Zinc	37.7	11.3	"	34.8	7.97	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

**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 1407199 - EPA 3050B**

Matrix Spike (1407199-MS1)		Source: 1407149-01			Prepared & Analyzed: 07/25/14					
Arsenic	15.6	0.113	mg/kg dry	2.17	10.7	226	75-125			QM-07
Barium	218	0.113	"	21.7	227	NR	75-125			QM-07
Cadmium	1.13	0.113	"	0.217	0.879	115	75-125			
Chromium	44.7	0.564	"	21.7	8.62	166	75-125			QM-07
Copper	10.9	0.564	"	2.17	8.50	111	75-125			
Lead	24.0	0.113	"	2.17	20.3	173	75-125			QM-07
Nickel	18.7	0.113	"	2.17	16.3	108	75-125			
Selenium	2.74	0.0564	"	2.17	0.456	105	75-125			
Silver	0.310	0.113	"	0.217	0.0732	109	75-125			
Zinc	61.9	11.3	"	21.7	34.8	125	75-125			

Matrix Spike Dup (1407199-MSD1)		Source: 1407149-01			Prepared & Analyzed: 07/25/14					
Arsenic	15.5	0.113	mg/kg dry	2.14	10.7	226	75-125	0.364	25	QM-07
Barium	253	0.113	"	21.4	227	123	75-125	15.1	25	
Cadmium	1.19	0.113	"	0.214	0.879	147	75-125	5.66	25	QM-07
Chromium	52.0	0.564	"	21.4	8.62	203	75-125	15.0	25	QM-07
Copper	10.0	0.564	"	2.14	8.50	71.8	75-125	8.28	25	QM-07
Lead	23.5	0.113	"	2.14	20.3	152	75-125	2.07	25	QM-07
Nickel	19.6	0.113	"	2.14	16.3	155	75-125	5.03	25	QM-07
Selenium	3.14	0.0564	"	2.14	0.456	126	75-125	13.7	25	QM-07
Silver	0.331	0.113	"	0.214	0.0732	120	75-125	6.50	25	
Zinc	65.1	11.3	"	21.4	34.8	142	75-125	5.17	25	QM-07

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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**Total Mercury by EPA Method 7471/7470/245.1 - Quality Control**  
**Summit Scientific**

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

**Batch 1407200 - EPA 7471A**

**Blank (1407200-BLK1)**

Prepared & Analyzed: 07/25/14

Mercury ND 0.0500 mg/kg wet

**LCS (1407200-BS1)**

Prepared & Analyzed: 07/25/14

Mercury 0.483 0.0500 mg/kg wet 0.500 96.6 80-120

**Duplicate (1407200-DUP1)**

Source: 1407139-01

Prepared & Analyzed: 07/25/14

Mercury 0.0270 0.0524 mg/kg dry 0.0246 9.48 20

**Matrix Spike (1407200-MS1)**

Source: 1407139-01

Prepared & Analyzed: 07/25/14

Mercury 0.476 0.0524 mg/kg dry 0.503 0.0246 89.6 80-120

**Matrix Spike Dup (1407200-MSD1)**

Source: 1407139-01

Prepared & Analyzed: 07/25/14

Mercury 0.459 0.0476 mg/kg dry 0.476 0.0246 91.2 80-120 3.66 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

**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 1407209 - 3060A\_Mod**

**Blank (1407209-BLK1)**

Prepared & Analyzed: 07/28/14

Chromium, Hexavalent ND 1.00 mg/kg wet

**LCS (1407209-BS1)**

Prepared & Analyzed: 07/28/14

Chromium, Hexavalent 22.8 1.00 mg/kg wet 20.0 114 80-120

**LCS Dup (1407209-BSD1)**

Prepared & Analyzed: 07/28/14

Chromium, Hexavalent 20.4 1.00 mg/kg wet 20.0 102 80-120 11.1 20

**Matrix Spike (1407209-MS1)**

**Source: 1407149-01**

Prepared & Analyzed: 07/28/14

Chromium, Hexavalent 19.7 1.13 mg/kg dry 21.3 ND 92.5 80-120

**Matrix Spike Dup (1407209-MSD1)**

**Source: 1407149-01**

Prepared & Analyzed: 07/28/14

Chromium, Hexavalent 21.0 1.13 mg/kg dry 22.2 ND 94.3 80-120 6.06 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: BBC - Epperly 14C-23  
Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

**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 1407201 - General Preparation**

**Blank (1407201-BLK1)**

Prepared & Analyzed: 07/25/14

Calcium	ND	30.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

**LCS (1407201-BS1)**

Prepared & Analyzed: 07/25/14

Calcium	982	30.0	mg/kg wet	1000	98.2	80-120
Magnesium	931	5.00	"	1000	93.1	80-120
Sodium	950	5.00	"	1000	95.0	80-120

**Duplicate (1407201-DUP1)**

Source: 1407149-01

Prepared & Analyzed: 07/25/14

Calcium	769	33.9	mg/kg dry	808	4.98	200
Magnesium	287	5.64	"	314	9.15	200
Sodium	332	5.64	"	357	7.14	200

**Matrix Spike (1407201-MS1)**

Source: 1407149-01

Prepared & Analyzed: 07/25/14

Calcium	2370	33.9	mg/kg dry	1110	808	141	75-125	QM-07
Magnesium	1300	5.64	"	1110	314	89.4	75-125	
Sodium	1470	5.64	"	1110	357	101	75-125	

**Matrix Spike Dup (1407201-MSD1)**

Source: 1407149-01

Prepared & Analyzed: 07/25/14

Calcium	2650	33.9	mg/kg dry	1090	808	170	75-125	11.3	25	QM-07
Magnesium	1320	5.64	"	1090	314	92.3	75-125	0.934	25	
Sodium	1440	5.64	"	1090	357	100	75-125	1.84	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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

Reported:  
07/28/14 15:52

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 1407197 - General Preparation

Blank (1407197-BLK1)

Prepared & Analyzed: 07/24/14

Specific Conductance (EC) ND 0.0100 mmhos/cm

Duplicate (1407197-DUP1)

Source: 1407045-05

Prepared & Analyzed: 07/24/14

Specific Conductance (EC) 0.428 0.0100 mmhos/cm 0.459 6.98 20

Batch 1407198 - General Preparation

LCS (1407198-BS1)

Prepared: 07/24/14 Analyzed: 07/25/14

pH 6.06 0.100 pH Units 8.00 75.8 0-200

Duplicate (1407198-DUP1)

Source: 1407045-05

Prepared: 07/24/14 Analyzed: 07/25/14

pH 8.45 0.100 pH Units 8.47 0.236 20

Batch 1407207 - General Preparation

Duplicate (1407207-DUP1)

Source: 1407149-01

Prepared & Analyzed: 07/25/14

% Solids 88.7 % 88.6 0.113 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: BBC - Epperly 14C-23

Project Number: 0273-14020  
Project Manager: Jake Janicek

**Reported:**  
07/28/14 15:52

### Notes and Definitions

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

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