



FOR OGCC USE ONLY

Facility ID 425497
Location ID 413900

OGCC Employee:

Spill Complaint
 Inspection NOAV

Tracking No:

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

- Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): Multi-well Pit Closure

GENERAL INFORMATION

OGCC Operator Number: <u>10071</u> Name of Operator: <u>Bill Barrett Corporation (BBC)</u> Address: <u>112 Red Feather Trail</u> City: <u>Silt</u> State: <u>CO</u> Zip: <u>81652</u>		Contact Name and Telephone Name: <u>Scott Ghan</u> No: <u>970-876-1959</u> Fax: <u>970-876-0981</u>	
API/Facility No: <u>05-045-18583</u> Facility Name: <u>Circle B-10</u> Well Name: <u>CBS</u>	County: <u>Garfield</u> Facility Number: <u>NA</u> Well Number: <u>14B-21-692</u>	Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWSW 21 6S 92W 6 PM</u> Latitude: <u>39.51036</u> Longitude: <u>-107.67692</u>	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): NA

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Rangeland, pasture

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Olney Loam, 6 to 12 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Surface water is located 975 feet (ft.) southeast. A water well is located 806 ft. east.

Groundwater is estimated to be between 15 - 20 ft. below ground surface (bgs).

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input type="checkbox"/> Soils	<u>NA</u>	
<input type="checkbox"/> Vegetation		
<input type="checkbox"/> Groundwater		
<input type="checkbox"/> Surface water		

REMEDIALTION WORKPLAN

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

NA

Describe how source is to be removed:

See Attached Letter

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.:

NA



REMEDIATION WORKPLAN (CONT.)

OGCC Employee: _____

Tracking Number: _____
Name of Operator: BBC
OGCC Operator No: 10071
Received Date: _____
Well Name & No: CBS 14B-21-692
Facility Name & No.: Circle B-10

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):
Groundwater was not encountered during sampling activities. Based on the Colorado Division of Water Resource records of static water levels in wells within a quarter-mile radius of the pad, groundwater is estimated to be at least 30 ft. bgs.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseed program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.
The ground surface will be contoured to match the existing grade. The pit will be backfilled with the cuttings stockpile and native soil at a minimum of 3 ft. bgs and 3 ft. above the static water level.

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? [] Y [X] N If yes, describe:
Analytical results for the site are summarized in the attached pit closure letter.
Based on the analytical data, BBC is requesting No Further Action determination for this site.

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

IMPLEMENTATION SCHEDULE

Table with 4 columns: Date Site Investigation Began, Date Site Investigation Completed, Remediation Plan Submitted, Remediation Start Date, Anticipated Completion Date, Actual Completion Date. Values include 6/21/10, 3/28/11, 7/20/11, NA, 3/28/11.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.
Print Name: Scott Ghan

Signed: [Signature] Title: E H & S Coordinator Date: 7/20/11

OGCC Approved: _____ Title: _____ Date: _____



July 20, 2011

Mr. Scott Ghan
Bill Barrett Corporation
112 Red Feather Trail
Silt, Colorado 81652

**Re: Field Activities and Sample Results Report
Circle B-10 Multi-Well Pit Closure (05-045-18583)
NWSW 21 6S 92W 6PM**

Dear Mr. Ghan:

LT Environmental, Inc. (LTE) was contracted by Bill Barrett Corporation (BBC) to provide environmental sampling activities at the above-referenced site. The scope of work consisted of collecting cuttings stockpile samples, background soil samples, and confirmation samples from the bottom of a multi-well drilling/completions pit, and reporting of field activities and laboratory analysis results.

An LTE representative initially conducted sampling activities at the site on June 21, 2010. Due to the size of the cuttings stockpile, it was divided into two distinct sections. Nine soil samples were collected and composited into two representative cuttings samples (C01@0.5' and C02@0.5'). Three background samples (BG01@0.5', BG02@0.5', and BG03@0.5') were collected in various locations surrounding the well pad surface. The cuttings samples were submitted to Accutest Gulf Coast Laboratories (Accutest) of Houston, Texas, for analysis of Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 metals, electrical conductivity (EC), pH, total petroleum hydrocarbons-gasoline range organics (TPH-GRO), and TPH-diesel range organics (TPH-DRO). The background samples were submitted to Accutest for analysis of arsenic.

Analytical results indicate concentrations of metals, EC, TPH-GRO, and TPH-DRO for both composite samples from the cuttings stockpile (C01@0.5' and C02@0.5') are in compliance with COGCC Table 910-1 levels or within background concentrations (arsenic).

The pH levels for the cuttings samples exceed the COGCC Table 910-1 concentration level, at 9.33 for cuttings sample C01@0.5' and 9.09 for cuttings sample C02@0.5'. However, Frequently Asked Question Number 31 on the COGCC website states the COGCC will apply Table 910-1 for EC, pH, and sodium adsorption ratio (SAR) only to soils within 3 feet of the ground surface. As such, the COGCC requires materials with elevated EC, pH, or SAR concentrations be buried under a minimum of 3 feet of cover and a minimum of 3 feet above the static water level. Although EC, pH, and SAR are parameters used to ensure proper reclamation of disturbed areas, limited exceedances of these parameters will not likely affect reclamation, as the mixed drill cuttings will be buried below the vegetative root zone.

An LTE representative returned to the site on February 16, March 7, and March 28, 2011, to conduct additional sampling activities. Five soil samples were collected from the bottom of the drilling/completion pit (P01@15', P01@18', P02@15', P02@18', and P02@24') and were



submitted to Summit Scientific (Summit) of Golden, Colorado, for analysis of COGCC Table 910-1 metals, EC, pH, SAR, benzene, toluene, ethylbenzene, and total xylenes (BTEX), TPH-GRO, TPH-DRO, and each of the polycyclic aromatic hydrocarbons (PAHs) listed in COGCC Table 910-1.

Analytical results indicate the concentrations of Table 910-1 metals, EC, BTEX, and TPH-GRO for the pit bottom samples (P01@15', P01@18', P02@15', P02@18', and P02@24') are in compliance with COGCC Table 910-1 concentration levels or within the background concentrations (arsenic). Results for TPH-DRO and Dibenz (a,h) anthracene at P02@15' initially exceeded Table 910-1 standards. BBC excavated the impacted soil and LTE collected another soil sample from 18 ft below the ground surface (bgs). The deeper sample was analyzed for PAHs, TPH-GRO and TPH-DRO. Results indicate all analytes were compliant with COGCC Table 910-1 concentrations.

The SAR results for the two pit bottom samples exceed the COGCC Table 910-1 level at 199 for pit sample P01@15' and 30 for pit sample P02@18'. Additional soil samples were collected at a greater depth at the two locations (P01 and P02) to define SAR exceedances. Analytical results indicate the SAR is compliant with the COGCC Table 910-1 at 18 ft and 24 ft bgs for P01 and P02, respectively. The pH result for pit bottom sample P02@24' also exceeds the COGCC Table 910-1 level at 10.0. As discussed previously, Frequently Asked Question Number 31 on the COGCC website explains that the COGCC will apply the Table 910-1 concentration levels for EC, pH, and SAR only to soils within 3 feet of the ground surface so this exceedance of pH should not affect revegetation.

A generalized depiction of sample locations for each sampling event and the multi-well drilling/completions pit are presented on the two attached site sketches. The analytical results are summarized in Table 1 and the laboratory analytical reports are attached to this letter.

Please call us at (970) 285-9985 if you have any questions regarding this letter report or require additional information.

Sincerely,

LT ENVIRONMENTAL, INC.

Asher Weinberg
Staff Environmental Scientist

Brian Dodek, P.G.
Client Manager/Project Geologist

Attachments:

Figure - Site sketch for June 21, 2010 sampling event

Figure - Site sketch for February 15, March 7, and March 28, 2011 sampling events

Table 1 - Soil Analytical Results

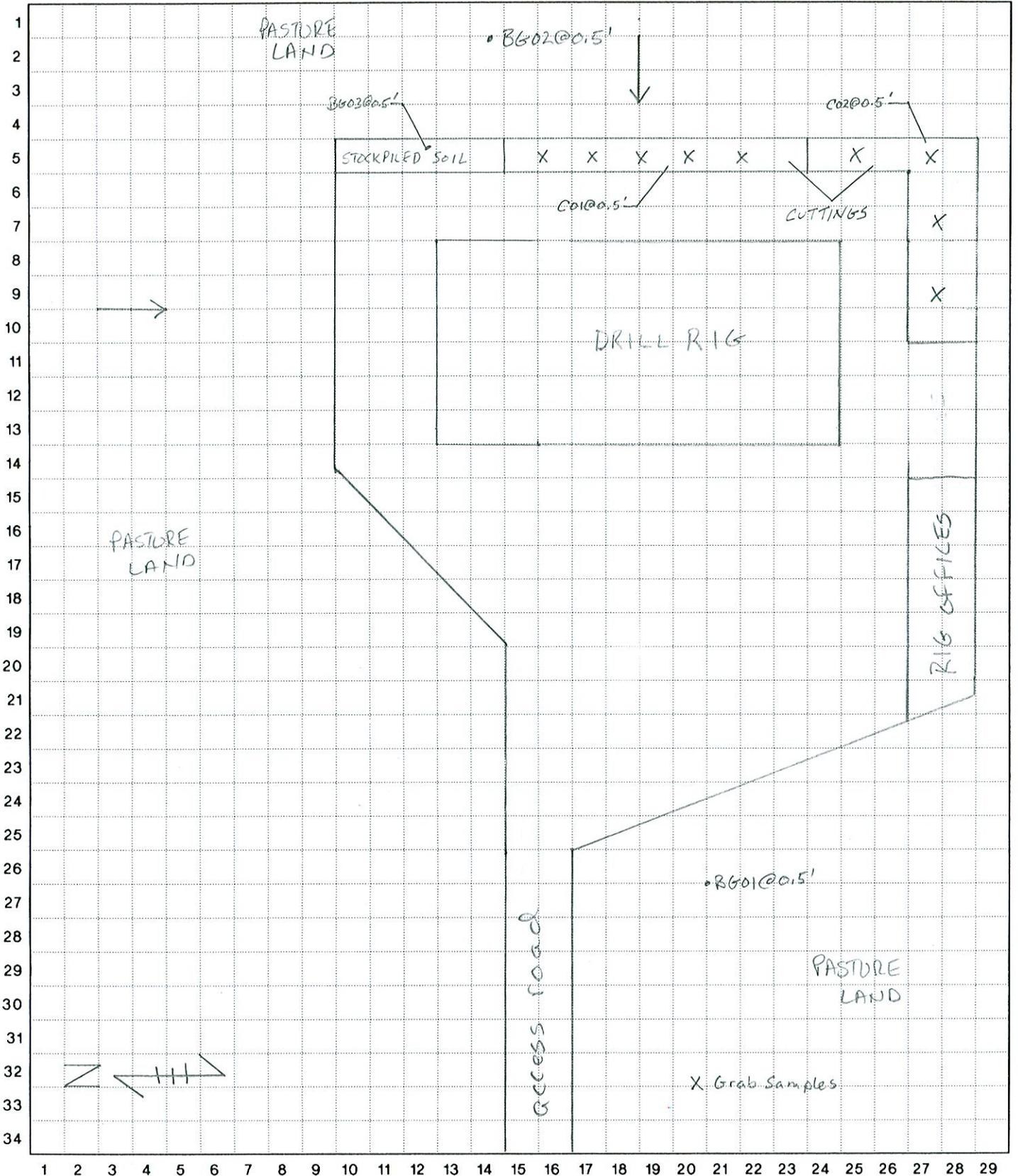
Attachment - Laboratory Analytical Reports



PROJECT Circle B-10
PROJECT MANAGER _____
JOB No. _____
LOCATION _____

DATE 6-21-10
CONT. No. _____
BY JJ CHK'D _____
SHEET No. _____ OF _____

95L T0038 10/1997





PROJECT Circle B 10
PROJECT MANAGER Brian D.
JOB No. BBC1010
LOCATION _____

3/7/11
DATE 2/16/11 3/28/11
CONT. No. _____
BY AW CHK'D _____
SHEET No. 1 OF 1

PSLT0038 10/1007

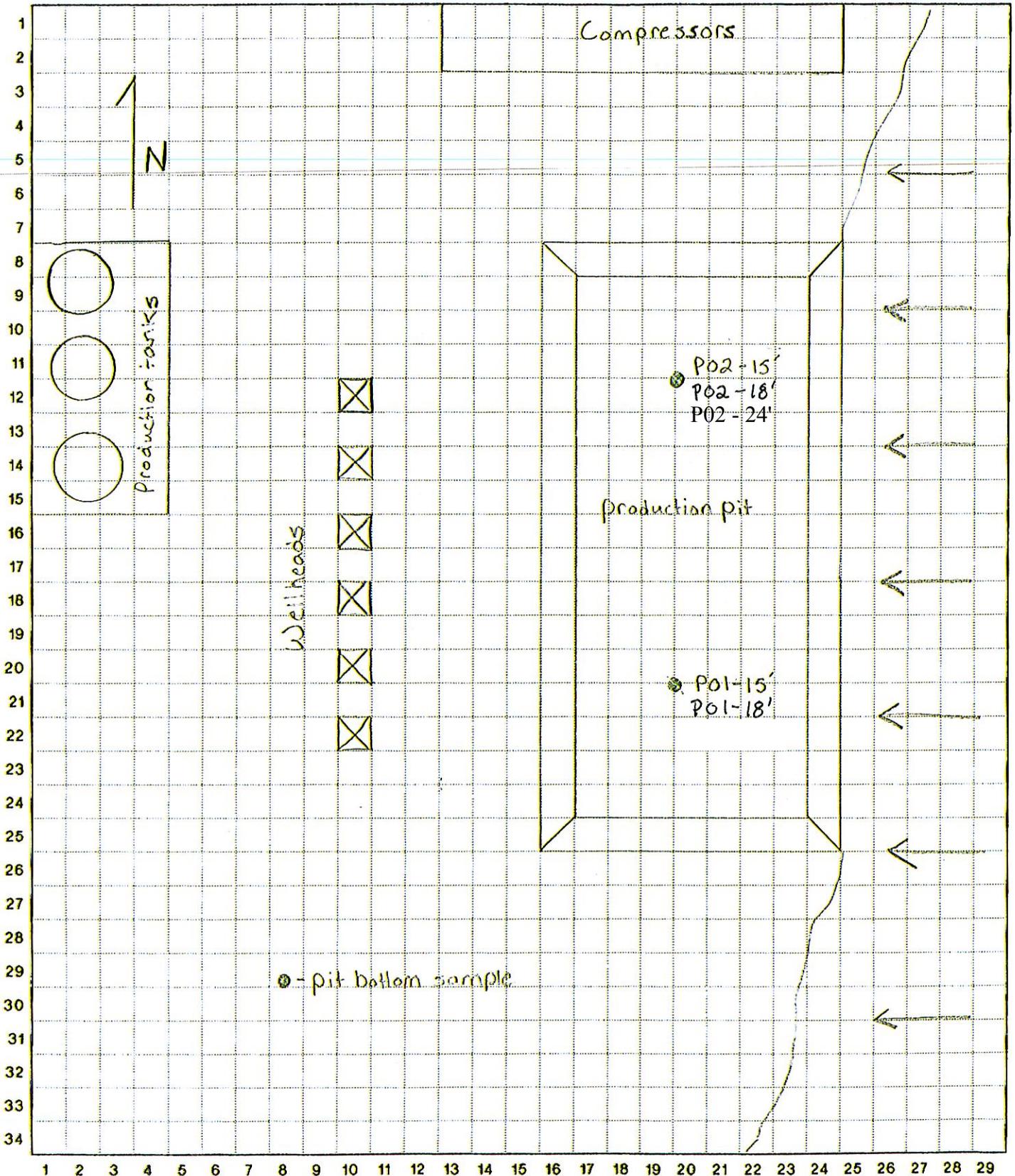


TABLE 1
SOIL ANALYTICAL RESULTS
CIRCLE B-10 WELL PAD
GARFIELD COUNTY, COLORADO
BILL BARRETT CORPORATION

Parameter	Standard	BG01	BG02	BG03	C01
Depth (feet)		0.5	0.5	0.5	0.5
Sample Date		6/21/2010	6/21/2010	6/21/2010	6/21/2010
Inorganics					
Electrical Conductivity (mmhos/cm)	4				0.811
SAR (units)	12				
pH, Lab (pH Units)	6 to 9				9.33
Metals					
Arsenic (mg/kg)	0.39	3.2	4.5	5.3	3.3
Barium (mg/kg)	15000				6610
Cadmium (mg/kg)	70				0.36
Chromium (mg/kg)					
Chromium+3 Calculated (mg/kg)	120000				15.8
Chromium, Hexavalent (mg/kg)	23				<2.6
Copper (mg/kg)	3100				31.9
Lead (mg/kg)	400				12.3
Mercury (mg/kg)	23				0.051
Nickel (mg/kg)	1600				12.4
Selenium (mg/kg)	390				<0.70
Silver (mg/kg)	390				<0.70
Zinc (mg/kg)	23000				54.6
Organic Compounds					
TPH-DRO (mg/kg)					245
TPH-GRO (mg/kg)					21.8
TPH-Total (mg/kg)	500				266.8
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				



TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS
CIRCLE B-10 WELL PAD
GARFIELD COUNTY, COLORADO
BILL BARRETT CORPORATION

Parameter	Standard	C02	P01	P01	P02
Depth (feet)		0.5	15	18	15
Sample Date		6/21/2010	2/16/2011	3/7/2011	2/16/2011
Inorganics					
Electrical Conductivity (mmhos/cm)	4	0.744	1.36		1.72
SAR (units)	12		199	8	34.7
pH, Lab (pH Units)	6 to 9	9.09	8.8		9.6
Metals					
Arsenic (mg/kg)	0.39	3.8	2.52		2.31
Barium (mg/kg)	15000	10100	279.4		459.7
Cadmium (mg/kg)	70	<0.43	2.8		1.9
Chromium (mg/kg)			9.4		8.9
Chromium+3 Calculated (mg/kg)	120000	16.5	9.4		8.7
Chromium, Hexavalent (mg/kg)	23	<2.8	<0.44		<0.46
Copper (mg/kg)	3100	27.9	10.8		13.4
Lead (mg/kg)	400	12.7	11		10.2
Mercury (mg/kg)	23	0.034	<0.05		<0.05
Nickel (mg/kg)	1600	11.4	15.3		15.5
Selenium (mg/kg)	390	<0.85	0.31		0.16
Silver (mg/kg)	390	<0.85	<0.1		<0.1
Zinc (mg/kg)	23000	54.9	72.5		64.49
Organic Compounds					
TPH-DRO (mg/kg)		80.7	99		630
TPH-GRO (mg/kg)		22.4	<0.50		<0.50
TPH-Total (mg/kg)	500	103.1	99		630
Benzene (mg/kg)	0.17		<0.0050		<0.0050
Toluene (mg/kg)	85		<0.0050		0.011
Ethylbenzene (mg/kg)	100		<0.0050		0.012
Xylenes, Total (mg/kg)	175		<0.0050		0.041
Acenaphthene (mg/kg)	1000		<0.005		0.015
Anthracene (mg/kg)	1000		<0.005		0.0223
Benzo (a) anthracene (mg/kg)	0.22		<0.005		0.0349
Benzo (b) fluoranthene (mg/kg)	0.22		<0.005		0.028
Benzo (k) fluoranthene (mg/kg)	2.2		<0.005		0.0436
Benzo (a) pyrene (mg/kg)	0.022		<0.005		0.0216
Chrysene (mg/kg)	22		0.00574		0.043
Dibenz (a,h) anthracene (mg/kg)	0.022		<0.01		0.0272
Fluoranthene (mg/kg)	1000		<0.005		0.0278
Fluorene (mg/kg)	1000		0.0212		0.113
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22		<0.01		0.0285
Naphthalene (mg/kg)	23		0.00668		0.0732
Pyrene (mg/kg)	1000		<0.005		0.0385



TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS
CIRCLE B-10 WELL PAD
GARFIELD COUNTY, COLORADO
BILL BARRETT CORPORATION

Parameter	Standard	P02	P02
Depth (feet)		18	24
Sample Date		3/7/2011	3/28/2011

Inorganics

Electrical Conductivity (mmhos/cm)	4		
SAR (units)	12	30	7.3
pH, Lab (pH Units)	6 to 9	10	10

Metals

Arsenic (mg/kg)	0.39		
Barium (mg/kg)	15000		
Cadmium (mg/kg)	70		
Chromium (mg/kg)			
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)		<50	
TPH-GRO (mg/kg)		<50	
TPH-Total (mg/kg)	500	<100	
Benzene (mg/kg)	0.17		
Toluene (mg/kg)	85		
Ethylbenzene (mg/kg)	100		
Xylenes, Total (mg/kg)	175		
Acenaphthene (mg/kg)	1000	<0.005	
Anthracene (mg/kg)	1000	<0.005	
Benzo (a) anthracene (mg/kg)	0.22	<0.005	
Benzo (b) fluoranthene (mg/kg)	0.22	<0.005	
Benzo (k) fluoranthene (mg/kg)	2.2	<0.005	
Benzo (a) pyrene (mg/kg)	0.022	<0.005	
Chrysene (mg/kg)	22	<0.005	
Dibenz (a,h) anthracene (mg/kg)	0.022	<0.01	
Fluoranthene (mg/kg)	1000	<0.005	
Fluorene (mg/kg)	1000	<0.005	
Indeno (1,2,3-cd) pyrene (mg/kg)	0.22	<0.01	
Naphthalene (mg/kg)	23	0.0182	
Pyrene (mg/kg)	1000	<0.005	



TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS
CIRCLE B-10 WELL PAD
GARFIELD COUNTY, COLORADO
BILL BARRETT CORPORATION

Parameter	Standard	P02	P02
Depth (feet)		18	24
Sample Date		3/7/2011	3/28/2011

Notes:

< - less than stated laboratory reporting limit

Bold numbers indicate result equalled or exceeded standard.

Basic Standards for Soil are taken 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





Technical Report for

LT Environmental

Circle B-10/ BBC1010

BBC1010

Accutest Job Number: T55002

Sampling Date: 06/21/10

Report to:

LT Environmental
820 Megan Ave, Unit B
Rifle, CO 81650
aweinberg@ltenv.com; bdodek@ltenv.com;
jjanicek@ltenv.com
ATTN: Asher Weinberg

Total number of pages in report: 50



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103) UT(7132714700)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.



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Sample Summary

LT Environmental

Job No: T55002

Circle B-10/ BBC1010
Project No: BBC1010

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T55002-1	06/21/10	16:10 JJ	06/23/10	SO	Soil	CO1@0.5'
T55002-2	06/21/10	16:25 JJ	06/23/10	SO	Soil	CO2@0.5'
T55002-3	06/21/10	15:20 JJ	06/23/10	SO	Soil	BG01@0.5'
T55002-4	06/21/10	15:25 JJ	06/23/10	SO	Soil	BG02@0.5'
T55002-5	06/21/10	15:30 JJ	06/23/10	SO	Soil	BG03@0.5'

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: CO1@0.5'		
Lab Sample ID: T55002-1		Date Sampled: 06/21/10
Matrix: SO - Soil		Date Received: 06/23/10
Method: SW846 8015		Percent Solids: 74.1
Project: Circle B-10/ BBC1010		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB0000340.D	1	06/24/10	LB	n/a	n/a	GBB17
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.33 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	21.8	8.1	0.48	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	108%		46-127%
98-08-8	aaa-Trifluorotoluene	106%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CO1@0.5'	
Lab Sample ID: T55002-1	Date Sampled: 06/21/10
Matrix: SO - Soil	Date Received: 06/23/10
Method: SW846 8015 M SW846 3550B	Percent Solids: 74.1
Project: Circle B-10/ BBC1010	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF199004.D	1	06/28/10	EM	06/25/10	OP15205	GIF1043
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	245	4.4	3.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	83%		33-115%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CO1@0.5'	Date Sampled: 06/21/10
Lab Sample ID: T55002-1	Date Received: 06/23/10
Matrix: SO - Soil	Percent Solids: 74.1
Project: Circle B-10/ BBC1010	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	3.3	0.49	mg/kg	5	06/28/10	06/29/10 ANJ	SW846 6020 ⁴	SW846 3050B ⁷
Barium	6610	70	mg/kg	5	06/24/10	06/27/10 NS	SW846 6010B ²	SW846 3050B ⁵
Cadmium	0.36	0.35	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Copper	31.9	1.7	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Lead	12.3	0.70	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Mercury	0.051	0.021	mg/kg	1	06/28/10	06/28/10 CN	SW846 7471A ³	SW846 7471A ⁶
Nickel	12.4	2.8	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Selenium	< 0.70	0.70	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Silver	< 0.70	0.70	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Zinc	54.6	1.4	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵

- (1) Instrument QC Batch: MA4858
- (2) Instrument QC Batch: MA4861
- (3) Instrument QC Batch: MA4864
- (4) Instrument QC Batch: N:MA24547
- (5) Prep QC Batch: MP12134
- (6) Prep QC Batch: MP12159
- (7) Prep QC Batch: N:MP53399

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: CO1@0.5'		Date Sampled: 06/21/10
Lab Sample ID: T55002-1		Date Received: 06/23/10
Matrix: SO - Soil		Percent Solids: 74.1
Project: Circle B-10/ BBC1010		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 2.6	2.6	mg/kg	1	06/25/10 09:00	KD	SW846 3060/7196A
Chromium, Trivalent ^a	15.8	3.3	mg/kg	1	06/25/10 22:16	NS	SW846 6010/7196A M
Solids, Percent	74.1		%	1	06/23/10	MR	SM 2540 G
Specific Conductivity	811	1.0	umhos/cm	1	06/25/10 12:00	KD	EPA 120.1
pH	9.33		su	1	06/24/10 10:40	LA	SW846 9045C

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID: CO2@0.5'		
Lab Sample ID: T55002-2		Date Sampled: 06/21/10
Matrix: SO - Soil		Date Received: 06/23/10
Method: SW846 8015		Percent Solids: 71.7
Project: Circle B-10/ BBC1010		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB0000341.D	1	06/24/10	LB	n/a	n/a	GBB17
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.10 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	22.4	8.8	0.53	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	109%		46-127%
98-08-8	aaa-Trifluorotoluene	105%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CO2@0.5'	Date Sampled: 06/21/10
Lab Sample ID: T55002-2	Date Received: 06/23/10
Matrix: SO - Soil	Percent Solids: 71.7
Method: SW846 8015 M SW846 3550B	
Project: Circle B-10/ BBC1010	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF199006.D	1	06/28/10	EM	06/25/10	OP15205	GIF1043
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	80.7	4.6	3.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	72%		33-115%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CO2@0.5'	Date Sampled: 06/21/10
Lab Sample ID: T55002-2	Date Received: 06/23/10
Matrix: SO - Soil	Percent Solids: 71.7
Project: Circle B-10/ BBC1010	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	3.8	0.49	mg/kg	5	06/28/10	06/29/10 ANJ	SW846 6020 ⁴	SW846 3050B ⁷
Barium	10100	170	mg/kg	10	06/24/10	06/30/10 NS	SW846 6010B ³	SW846 3050B ⁵
Cadmium	< 0.43	0.43	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Copper	27.9	2.1	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Lead	12.7	0.85	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Mercury	0.034	0.021	mg/kg	1	06/28/10	06/28/10 CN	SW846 7471A ²	SW846 7471A ⁶
Nickel	11.4	3.4	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Selenium	< 0.85	0.85	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Silver	< 0.85	0.85	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵
Zinc	54.9	1.7	mg/kg	1	06/24/10	06/25/10 NS	SW846 6010B ¹	SW846 3050B ⁵

- (1) Instrument QC Batch: MA4858
- (2) Instrument QC Batch: MA4864
- (3) Instrument QC Batch: MA4872
- (4) Instrument QC Batch: N:MA24547
- (5) Prep QC Batch: MP12134
- (6) Prep QC Batch: MP12159
- (7) Prep QC Batch: N:MP53399

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: CO2@0.5'		
Lab Sample ID: T55002-2		Date Sampled: 06/21/10
Matrix: SO - Soil		Date Received: 06/23/10
		Percent Solids: 71.7
Project: Circle B-10/ BBC1010		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 2.8	2.8	mg/kg	1	06/25/10 09:00	KD	SW846 3060/7196A
Chromium, Trivalent ^a	16.5	3.6	mg/kg	1	06/25/10 22:22	NS	SW846 6010/7196A M
Solids, Percent	71.7		%	1	06/23/10	MR	SM 2540 G
Specific Conductivity	744	1.0	umhos/cm	1	06/25/10 12:00	KD	EPA 120.1
pH	9.09		su	1	06/24/10 10:40	LA	SW846 9045C

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID: BG01@0.5'	Date Sampled: 06/21/10
Lab Sample ID: T55002-3	Date Received: 06/23/10
Matrix: SO - Soil	Percent Solids: 97.9
Project: Circle B-10/ BBC1010	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	3.2	0.50	mg/kg	5	06/28/10	06/29/10 ANJ	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: N:MA24547

(2) Prep QC Batch: N:MP53399

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: BG02@0.5'	Date Sampled: 06/21/10
Lab Sample ID: T55002-4	Date Received: 06/23/10
Matrix: SO - Soil	Percent Solids: 96.7
Project: Circle B-10/ BBC1010	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	4.5	0.54	mg/kg	5	06/28/10	06/29/10 ANJ	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: N:MA24547

(2) Prep QC Batch: N:MP53399

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: BG03@0.5'	Date Sampled: 06/21/10
Lab Sample ID: T55002-5	Date Received: 06/23/10
Matrix: SO - Soil	Percent Solids: 95.3
Project: Circle B-10/ BBC1010	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	5.3	0.50	mg/kg	5	06/28/10	06/29/10 ANJ	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: N:MA24547

(2) Prep QC Batch: N:MP53399

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

10165 Harwin Dr. Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking #
Accutest Quote #
Bottle Order Control #
Accutest Job # **T55002**

Client / Reporting Information		Project Information										Requested Analyses										Matrix Codes									
Company Name LT Environmental		Project Name: Circle B-10										Total Arsenic 6020 BTEX-PH GR0/DRO Total Metals 6010 EC PH PAHs (Hold-see comments) BTEX (Hold-see comments)										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Street Address 820 Meganave Dr. + B		Street																													
City State Zip Rifle Co 81650		Billing Information (if different from Report to) Company Name																													
Project Contact Asher Weinberg		Project # BBCL010																													
Phone # 7702859785		Client Purchase Order #																													
Sampler(s) Name(s) Jake Janicek		Project Manager Asher Weinberg																													
Field ID / Point of Collection		Date		Time		Sampled By		Matrix		# of bottles		Number of preserved Bottles										LAB USE ONLY									
1 Col @ 0.5'		6-21-10		16:10		JJ		So		4+3/4 bag																					
2 Col @ 0.5'		6-21-10		16:25		JJ		So		4+3/4 bag																					
3 B601 @ 0.5'		6-21-10		15:20		JJ		So		1																					
4 B602 @ 0.5'		6-21-10		15:25		JJ		So		1																					
5 B603 @ 0.5'		6-21-10		15:30		JJ		So		1																					
Turnaround Time (Business days)		Data Deliverable Information										Comments / Special Instructions																			
<input type="checkbox"/> Standard <input checked="" type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: Bruce Schatter										<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULL1 (Level 3+4) <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> TRRP <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____										Metals: Cadmium, Chromium (III), Chromium (VI), Copper, Lead, Mercury, Nickel, Selenium, Silver, Zinc, Boliu Hold samples: analyze BTEX when GR0 > 100 mg/kg, and PAHs when DR0 is > 500 mg/kg Report results per the COGLC Table 910-1 standards									
Relinquished by Sampler: J. Janicek		Date Time: 6-22-10 07:15		Received By: FedEX		Relinquished By: FedEX		Date Time: 0915		Received By: 2 Vance Huddleston																					
Relinquished by Sampler:		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:																					
Relinquished by:		Date Time:		Received By:		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		<input type="checkbox"/> Preserved where applicable <input type="checkbox"/>		On Ice 10		Cooler Temp. 4.4 °C																	

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3

SAMPLE INSPECTION FORM

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3

Accutest Job Number: T55002 Client: LT Environmental Date/Time Received: 6-23-10 0945
 # of Coolers Received: 1 Thermometer #: IR-1 Temperature Adjustment Factor: +0.4°C
 Cooler Temps: #1: 4.4°C #2: _____ #3: _____ #4: _____ #5: _____ #6: _____ #7: _____ #8: _____
 Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other
 Airbill Numbers: 8700 9644 9577

- COOLER INFORMATION**
- Custody seal missing or not intact
 - Temperature criteria not met
 - Wet ice received in cooler

- SAMPLE INFORMATION**
- Sample containers received broken
 - VOC vials have headspace
 - Sample labels missing or illegible
 - ID on COC does not match label(s)
 - D/T on COC does not match label(s)
 - Sample/Bottles recvd but no analysis on COC
 - Sample listed on COC, but not received
 - Bottles missing for requested analysis
 - Insufficient volume for analysis
 - Sample received improperly preserved

- TRIP BLANK INFORMATION**
- Trip Blank on COC but not received
 - Trip Blank received but not on COC
 - Trip Blank not intact
 - Received Water Trip Blank
 - Received Soil TB

- CHAIN OF CUSTODY**
- Chain of Custody not received
 - Sample D/T unclear or missing
 - Analyses unclear or missing
 - COC not properly executed

Number of Encores? _____
 Number of 5035 kits? _____
 Number of lab-filtered metals? _____

Summary of Discrepancies: Bagged samples have water infiltration from cooler. Bags have standing water in them.

TECHNICIAN SIGNATURE/DATE: Darius Kuddeleston 6-23-10

INFORMATION AND SAMPLE LABELING VERIFIED BY: LC 6-23-10

♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **CORRECTIVE ACTIONS** ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦

Client Representative Notified: _____ Date: _____

By Accutest Representative: _____ Via: Phone Email

Client Instructions: _____

E:\walker\forms\samplemanagement



SAMPLE RECEIPT LOG

JOB #: T55002 DATE/TIME RECEIVED: 6-23-10 0915
 CLIENT: LT Environmental INITIALS: DRA

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH	
↓	1	CO1 @ 0.5'	6-21-10 1610	SOL	4oz	1	2-82	① 2 3 4 5 6 7 8	<2 >12	met
↓	↓	↓	↓	↓	↓	2	↓	① 2 3 4 5 6 7 8	<2 >12	ext
↓	↓	↓	↓	↓	↓	3	↓	① 2 3 4 5 6 7 8	<2 >12	mult
↓	↓	↓	↓	↓	↓	4	VR	① 2 3 4 5 6 7 8	<2 >12	VOA
↓	↓	↓	↓	↓	BAG	5	2-82	① 2 3 4 5 6 7 8	<2 >12	met
↓	2	CO2 @ 0.5'	6-21-10 1625	↓	4oz	1	2-82	① 2 3 4 5 6 7 8	<2 >12	
↓	↓	↓	↓	↓	↓	2	↓	① 2 3 4 5 6 7 8	<2 >12	
↓	↓	↓	↓	↓	↓	3	↓	① 2 3 4 5 6 7 8	<2 >12	
↓	↓	↓	↓	↓	↓	4	VR	① 2 3 4 5 6 7 8	<2 >12	
↓	↓	↓	↓	↓	BAG	5	2-82	① 2 3 4 5 6 7 8	<2 >12	
↓	3	BG01 @ 0.5'	6-21-10 1520	↓	4oz	1	2-82	① 2 3 4 5 6 7 8	<2 >12	met
↓	4	BG02 @ 0.5'	6-21-10 1525	↓	4oz	1	2-82	① 2 3 4 5 6 7 8	<2 >12	met
↓	5	BG03 @ 0.5'	6-21-10 1530	↓	4oz	1	2-82	① 2 3 4 5 6 7 8	<2 >12	met
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	
DRA 6/23/10								1 2 3 4 5 6 7 8	<2 >12	

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other
 LOCATION: 1: Well In #1 (Water) 2: Well In #2 (Rain) VR: Volatile Organics M: Metals CUP: Cup

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 3



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T55002
Account: LTENCOR LT Environmental
Project: Circle B-10/ BBC1010

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBB17-MB	BB0000316.DI		06/24/10	LB	n/a	n/a	GBB17

The QC reported here applies to the following samples:

Method: OA-1

T55002-1, T55002-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Limits	
460-00-4	4-Bromofluorobenzene	96%	46-127%
98-08-8	aaa-Trifluorotoluene	105%	44-120%

Blank Spike Summary

Job Number: T55002
Account: LTENCOR LT Environmental
Project: Circle B-10/ BBC1010

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBB17-BS	BB0000314.DI		06/24/10	LB	n/a	n/a	GBB17

The QC reported here applies to the following samples:

Method: OA-1

T55002-1, T55002-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.381	95	76-109

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	98%	46-127%
98-08-8	aaa-Trifluorotoluene	112%	44-120%

4.2.1
4

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T55002
Account: LTENCOR LT Environmental
Project: Circle B-10/ BBC1010

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T55017-8MS	BB0000338.D1		06/24/10	LB	n/a	n/a	GBB17
T55017-8MSD	BB0000339.D1		06/24/10	LB	n/a	n/a	GBB17
T55017-8	BB0000334.D1		06/24/10	LB	n/a	n/a	GBB17

The QC reported here applies to the following samples:

Method: SW846 8015

T55002-1, T55002-2

CAS No.	Compound	T55017-8 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.717	J	18.8	19.0	97	18.5	95	3	78-115/14

CAS No.	Surrogate Recoveries	MS	MSD	T55017-8	Limits
460-00-4	4-Bromofluorobenzene	100%	99%	96%	46-127%
98-08-8	aaa-Trifluorotoluene	109%	112%	105%	44-120%

4.3.1
4



GC Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T55002
Account: LTENCOR LT Environmental
Project: Circle B-10/ BBC1010

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15205-MB	IF198984.D	1	06/28/10	EM	06/25/10	OP15205	GIF1043

The QC reported here applies to the following samples:

Method: SW846 8015 M

T55002-1, T55002-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	3.3	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	89% 33-115%

Blank Spike Summary

Job Number: T55002
Account: LTENCOR LT Environmental
Project: Circle B-10/ BBC1010

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15205-BS	IF198991.D	1	06/28/10	EM	06/25/10	OP15205	GIB1043

The QC reported here applies to the following samples:

Method: SW846 8015 M

T55002-1, T55002-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33.3	20.2	61	45-107

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	72%	33-115%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T55002
Account: LTENCOR LT Environmental
Project: Circle B-10/ BBC1010

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15205-MS	IF198992.D	1	06/28/10	EM	06/25/10	OP15205	GIF1043
OP15205-MSD	IF198993.D	1	06/28/10	EM	06/25/10	OP15205	GIB1043
T55060-3	IF198996.D	1	06/28/10	EM	06/25/10	OP15205	GIF1043

The QC reported here applies to the following samples:

Method: SW846 8015 M

T55002-1, T55002-2

CAS No.	Compound	T55060-3 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND	40.9	27.5	67	27.2	66	1	45-107/34	

CAS No.	Surrogate Recoveries	MS	MSD	T55060-3	Limits
84-15-1	o-Terphenyl	82%	72%	79%	33-115%

5.3.1
5



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T55002
Account: LTENCOR - LT Environmental
Project: Circle B-10/ BBC1010

QC Batch ID: MP12134
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/24/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.82	2.2		
Antimony	0.50	.11	.14		
Arsenic	0.50	.089	.1		
Barium	10	.007	.03	-0.00050	<10
Beryllium	0.25	.0055	.01		
Boron	5.0	.054	.11		
Cadmium	0.25	.013	.05	0.0040	<0.25
Calcium	250	.27	.86		
Chromium	0.50	.055	.035		
Cobalt	2.5	.025	.09		
Copper	1.3	.029	.065	-0.016	<1.3
Iron	5.0	.65	1.1		
Lead	0.50	.079	.2	0.013	<0.50
Magnesium	250	.34	.58		
Manganese	0.75	.01	.035		
Molybdenum	0.50	.048	.075		
Nickel	2.0	.048	.065	0.0035	<2.0
Potassium	250	2.7	16		
Selenium	0.50	.16	.12	0.0	<0.50
Silver	0.50	.043	.04	0.0020	<0.50
Sodium	250	6.5	13		
Strontium	1.0	.0085	.025		
Thallium	0.50	.16	.25		
Tin	1.0	.09	.12		
Titanium	1.0	.015	.045		
Vanadium	2.5	.03	.06		
Zinc	1.0	.025	.2	0.018	<1.0

Associated samples MP12134: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T55002
 Account: LTENCOR - LT Environmental
 Project: Circle B-10/ BBC1010

QC Batch ID: MP12134
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 06/24/10 06/24/10

Metal	T54917-1 Original	DUP	RPD	QC Limits	T54917-1 Original MS	Spikelot MPTW4	% Rec	QC Limits
Aluminum								
Antimony	anr							
Arsenic	anr							
Barium	121	132	8.7	0-20	121	136	29.6	50.7 (a) 80-120
Beryllium	anr							
Boron								
Cadmium	0.20	0.21	4.9	0-20	0.20	26.2	29.6	88.0 80-120
Calcium								
Chromium	anr							
Cobalt								
Copper	8.3	8.9	7.0	0-20	8.3	36.5	29.6	95.4 80-120
Iron								
Lead	9.5	10.4	9.0	0-20	9.5	36.8	29.6	92.3 80-120
Magnesium								
Manganese								
Molybdenum	anr							
Nickel	8.3	8.9	7.0	0-20	8.3	33.7	29.6	85.9 80-120
Potassium	anr							
Selenium	0.38	0.33	14.1	0-20	0.38	26.2	29.6	87.3 80-120
Silver	0.0	0.0	NC	0-20	0.0	28.7	29.6	97.1 80-120
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Vanadium								
Zinc	34.0	39.1	14.0	0-20	34.0	63.1	29.6	98.4 80-120

Associated samples MP12134: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T55002
 Account: LTENCOR - LT Environmental
 Project: Circle B-10/ BBC1010

QC Batch ID: MP12134
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 06/24/10

Metal	T54917-1 Original	MSD	Spike/lot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	121	154	28.4	116.2	12.4	20
Beryllium	anr					
Boron						
Cadmium	0.20	25.3	28.4	88.4	3.5	20
Calcium						
Chromium	anr					
Cobalt						
Copper	8.3	36.5	28.4	99.3	0.0	20
Iron						
Lead	9.5	36.6	28.4	95.4	0.5	20
Magnesium						
Manganese						
Molybdenum	anr					
Nickel	8.3	33.4	28.4	88.4	0.9	20
Potassium	anr					
Selenium	0.38	25.2	28.4	87.4	3.9	20
Silver	0.0	27.3	28.4	96.1	5.0	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	34.0	66.5	28.4	114.5	5.2	20

Associated samples MP12134: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T55002
 Account: LTENCOR - LT Environmental
 Project: Circle B-10/ BBC1010

QC Batch ID: MP12134
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 06/24/10

Metal	LCS Result	Spikelot MPLCD054	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	356	348	102.3	81-119
Beryllium	anr			
Boron				
Cadmium	174	187	93.0	82-118
Calcium				
Chromium	anr			
Cobalt				
Copper	123	129	95.3	84-117
Iron				
Lead	152	172	88.4	79-120
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	92.6	99	93.5	81-119
Potassium	anr			
Selenium	136	148	91.9	78-121
Silver	60.3	66	91.4	66-134
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	355	394	90.1	80-119

Associated samples MP12134: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

6.1.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: T55002
 Account: LTENCOR - LT Environmental
 Project: Circle B-10/ BBC1010

QC Batch ID: MP12134
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: ug/l

Prep Date: 06/24/10

Metal	T54917-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	1770	1860	4.8	0-10
Beryllium	anr			
Boron				
Cadmium	2.89	3.24	12.1 (a)	0-10
Calcium				
Chromium	anr			
Cobalt				
Copper	122	122	0.6	0-10
Iron				
Lead	139	149	7.7	0-10
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	121	132	9.3	0-10
Potassium	anr			
Selenium	5.57	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	498	546	9.6	0-10

Associated samples MP12134: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T55002
Account: LTENCOR - LT Environmental
Project: Circle B-10/ BBC1010

QC Batch ID: MP12159
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 06/28/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.017	.0041	.00066	0.00083	<0.017

Associated samples MP12159: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T55002
 Account: LTENCOR - LT Environmental
 Project: Circle B-10/ BBC1010

QC Batch ID: MP12159
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 06/28/10 06/28/10

Metal	T54917-1 Original	DUP	RPD	QC Limits	T54917-1 Original MS	Spikelot HGTXWS1	% Rec	QC Limits	
Mercury	0.010	0.013	26.1 (a)	0-20	0.010	0.32	0.299	103.8	75-125

Associated samples MP12159: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

6.2.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T55002
 Account: LTENCOR - LT Environmental
 Project: Circle B-10/ BBC1010

QC Batch ID: MP12159
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 06/28/10

Metal	T54917-1 Original MSD	Spikelot HGTXWS1	% Rec	MSD RPD	QC Limit
Mercury	0.010	0.30	0.298	97.3	6.5

Associated samples MP12159: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

6.2.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T55002
Account: LTENCOR - LT Environmental
Project: Circle B-10/ BBC1010

QC Batch ID: MP12159
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 06/28/10

Metal	LCS Result	Spikelot HGLCD054	% Rec	QC Limits
Mercury	7.0	7.34	95.4	72-128

Associated samples MP12159: T55002-1, T55002-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.3

6



General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T55002
Account: LTENCOR - LT Environmental
Project: Circle B-10/ BBC1010

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GN23689	2.0	<2.0	mg/kg	40	38.6	96.6	80-120%
Specific Conductivity	GN23724	1.0	<1.0	umhos/cm				

Associated Samples:

Batch GN23689: T55002-1, T55002-2

Batch GN23724: T55002-1, T55002-2

(*) Outside of QC limits

7.1
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T55002
Account: LTENCOR - LT Environmental
Project: Circle B-10/ BBC1010

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GN23689	T55002-1	mg/kg	<2.6	<2.6	14.6	0-20%
Solids, Percent	GN23663	T54917-1	%	79.5	79.7	0.3	0-5%
Specific Conductivity	GN23724	T55002-1	umhos/cm	811	812	0.1	0-20%
pH	GN23703	T55002-1	su	9.33	9.38	0.5	0-20%

Associated Samples:

Batch GN23663: T55002-1, T55002-2, T55002-3, T55002-4, T55002-5

Batch GN23689: T55002-1, T55002-2

Batch GN23703: T55002-1, T55002-2

Batch GN23724: T55002-1, T55002-2

(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T55002
Account: LTENCOR - LT Environmental
Project: Circle B-10/ BBC1010

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GN23689	T55002-1	mg/kg	<2.6	53.98mg/kg	51.7	92.8	75-125%

Associated Samples:

Batch GN23689: T55002-1, T55002-2

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody



SUBCONTRACT COC

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # T55002

Client Information		Subcontract Information		Requested Analyses										Matrix Codes
Company Name Accutest Gulf Coast		Subcontract Laboratory Accutest New Jersey		Arsenic / 6020 (Regulatory limit 0.39 mg/Kg) %SOL										DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge OL - Oil LQ - Liquid SOL - Other Solid
Project Contact Georgia Jones Email: gjones@accutest.com		Laboratory Contact Address 2235 Route 130, Building B												
Address 10165 Harwin Dr, Suite 150		City Dayton												
State TX		State NJ												
Zip 77036		Zip 8810												
Phone No. 713-271-4700		Phone No. 732-329-0200												

Accutest Sample Number	Collection		Matrix	# of bottles	Number of preserved bottles										Arsenic / 6020 (Regulatory limit 0.39 mg/Kg)	%SOL	LAB USE ONLY			
	Date	Time			HC	HC3	HC4	HC5	HC6	HC7	HC8	HC9	HC10	HC11				HC12		
T55002-1	6/21/2010		SO	1														X		4228
T55002-2	6/21/2010		SO	1														X		487X
T55002-3	6/21/2010		SO	1														X	X	
T55002-4	6/21/2010		SO	1														X	X	
T55002-5	6/21/2010		SO	1														X	X	

Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks	
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> 5 Day <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other		Approved By / Date: _____ <input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Data Package Commercial "A" = Results Only Commercial "B" = Results & Standard QC		Regulatory limit 0.39 mg/Kg NABTW 6/21/10	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 <i>Denise Maddalena</i>	6:23-10	1 <i>Fede</i>	2 <i>Fede</i>	6/24/10 0915	2 <i>[Signature]</i>
Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice Cooler Temp. 3.2°C
5		5			

1A

8.1
8

T55002: Chain of Custody
Page 1 of 2
Accutest New Jersey



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: T55002

Client:

Immediate Client Services Action Required: No

Date / Time Received: 6/24/2010

Delivery Method:

Client Service Action Required at Login: No

Project:

No. Coolers: 1

Airbill #'s:

<u>Cooler Security</u>	<u>Y or N</u>			<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	Infrared gun	
3. Cooler media:	Ice (bag)	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y or N</u>	
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	Intact	

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V: 732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www.accutest.com

8.1

8



Metals Analysis

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T55002
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: LTENCOR: Circle B-10/ BBC1010

QC Batch ID: MP53399
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 06/28/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	1.1	.52		
Antimony	0.25	.0085	.022		
Arsenic	0.50	.061	.11	0.048	<0.50
Barium	0.50	.017	.038		
Beryllium	0.25	.013	.03		
Boron	2.5	.29	.25		
Cadmium	0.25	.01	.016		
Calcium	130	12	3.1		
Chromium	2.0	.037	.29		
Cobalt	0.25	.004	.016		
Copper	2.0	.024	.036		
Iron	25	3.5	1.9		
Lead	0.25	.0055	.012		
Magnesium	130	1.2	1.4		
Manganese	0.25	.036	.02		
Molybdenum	0.50	.071	.096		
Nickel	2.0	.027	.026		
Potassium	130	2.5	3.9		
Selenium	0.50	.042	.058		
Silver	1.0	.0065	.022		
Sodium	130	5.9	1.3		
Strontium	0.50	.013	.0082		
Thallium	0.25	.012	.0051		
Tin	0.50	.039			
Titanium	0.50	.04	.27		
Uranium	0.50				
Vanadium	2.0	.24	.79		
Zinc	2.0	.25	.91		

Associated samples MP53399: T55002-1, T55002-2, T55002-3, T55002-4, T55002-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.1
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T55002
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: LTENCOR: Circle B-10/ BBC1010

QC Batch ID: MP53399
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 06/28/10

Metal	T55002-3 Original MS		SpikeLot MPIRS1 % Rec		QC Limits
Aluminum					
Antimony					
Arsenic	3.2	429	401	106.2	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP53399: T55002-1, T55002-2, T55002-3, T55002-4, T55002-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.12
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T55002
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: LTENCOR: Circle B-10/ BBC1010

QC Batch ID: MP53399
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 06/28/10

Metal	T55002-3 Original MSD	Spikelot MPIRS1	% Rec	MSD RPD	QC Limit	
Aluminum						
Antimony						
Arsenic	3.2	458	426	106.8	6.5	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP53399: T55002-1, T55002-2, T55002-3, T55002-4, T55002-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.12
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T55002
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: LTENCOR: Circle B-10/ BBC1010

QC Batch ID: MP53399
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 06/28/10

Metal	BSP Result	Spikelot MPIRS1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	408	400	102.0	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP53399: T55002-1, T55002-2, T55002-3, T55002-4, T55002-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.1.3
 9

SERIAL DILUTION RESULTS SUMMARY

Login Number: T55002
 Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
 Project: LTENCOR: Circle B-10/ BBC1010

QC Batch ID: MP53399
 Matrix Type: SOLID

Methods: SW846 6020
 Units: ug/l

Prep Date: 06/28/10

Metal	T55002-3			QC
	Original	SDL 5:25	%DIF	Limits

Aluminum				
Antimony				
Arsenic	32.3	33.5	3.9	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP53399: T55002-1, T55002-2, T55002-3, T55002-4, T55002-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.1.4
9

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

February 25, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: BBC - Circle B10

Enclosed are the results of analyses for samples received by Summit Scientific on 02/16/11 12:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P01-15'	R102086-01	Soil	02/16/11 11:22	02/16/11 12:00
P02-15'	R102086-02	Soil	02/16/11 11:22	02/16/11 12:00

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.

S2

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

Project: BBC - Circle B10
Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

Summit Scientific 2102086

741 Corporate Circle Suite 1 ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page ___ of ___

Client:	LT Environmental	Project Manager:	Brian Dodek
Address:	820 Megan Avenue Unit B	E-Mail:	bdodek@ltenv.com
City/State/Zip:	Rifle, CO 81650	Project Name:	Circle B10
Phone:	(970) 285-9985 Fax: (970) 285 2467	Project Number:	BBC1010
Sampler Name:	Asher Weinberg		

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:							Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	TPH GRO/DRO	Table 910-1 Metals*	PAHs	EC	PH	SAR			
P01-15'	2/15/11	11:22	4			X							X	X	X	X	X	X	X	X	*Table 910-1 Metals As, Ba, Cd, Cr III, Cr VI, Cu, Pb, Hg, Ni, Se, Ag, Zn
P02-15'	2/15/11	11:22	4			X							X	X	X	X	X	X	X	X	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)				Notes:													
<i>Asher Weinberg</i>	2/15/11 15:15	<i>Brian Dodek</i>	2-16 12:00	Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/>				5 day Turn													
				24 Hours <input type="checkbox"/>																	
				48 Hours <input type="checkbox"/>																	
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:																	
				Temperature Upon Receipt: 4.8																	
				Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>																	

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P01-15'
R102086-01 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	1022104	02/21/11	02/25/11	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	5.74	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	21.2	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	10.0	"	"	"	"	"	"	
Naphthalene	6.68	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: Nitrobenzene-d5		81.7 %	30-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		69.3 %	30-120		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		79.8 %	30-120		"	"	"	"	
Surrogate: Terphenyl-d14		77.8 %	30-120		"	"	"	"	

Total Petroleum Hydrocarbons by 8015

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	99	50	mg/kg	1	1021604	02/16/11	02/17/11	8015 DRO	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P01-15'
R102086-01 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Surrogate: *o*-Terphenyl 114 % 88.8-124 1021604 02/16/11 02/17/11 8015 DRO

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	1021603	02/16/11	02/17/11	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		79.8 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		106 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	78.4-125		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.36	0.00100	mmhos/cm	1	1022102	02/21/11	02/22/11	SM 2510b/mod	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.8		pH Units	"	1022103	02/21/11	02/22/11	EPA 9045B	

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P01-15'
R102086-01 (Soil)

Summit Scientific

Colorado Analytical Laboratories

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3.4	0.1	meq/L	1	1022503	02/22/11	02/25/11	USDA60 6 (20b)	

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	2.6	0.1	"	"	"	"	"	"	

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium	34.4	0.1	"	"	"	"	"	"	

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.52	0.05	mg/kg	"	"	"	"	SW6020	
Barium	279.4	0.1	"	"	"	"	"	"	
Cadmium	2.8	0.1	"	"	"	"	"	"	
Copper	10.8	0.1	"	"	"	"	"	"	
Lead	11	0.1	"	"	"	"	"	"	
Nickel	15.3	0.1	"	"	"	"	"	"	
Selenium	0.31	0.05	"	"	"	"	"	"	
Silver	ND	0.1	"	"	"	"	"	"	
Zinc	72.5	0.05	"	"	"	"	"	"	

Colorado Analytical Laboratories - Calculated Analytes

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	199	0.1	units	1	1022503	"	02/25/11	Calculation	

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P01-15'
R102086-01 (Soil)

Summit Scientific

Colorado Analytical Laboratories - Total Metals by APHA/EPA Methods

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.05	mg/kg	1	1022503	02/23/11	02/25/11	EPA 7471A	

Evergreen Analytical Laboratories

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium	9.4	1.2	mg/kg	1	1022504	02/21/11	02/25/11	EPA 6010A	

Evergreen Analytical - 6010 Hexavalent Chromium, Soil (3060A Mod Digest)

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.44	mg/kg	1	1022504	"	02/25/11	SW6010B Cr6	

Evergreen Analytical - Trivalent Chromium, Calculated, Soil Basis

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	9.4	1.6	mg/kg	1	1022504	"	02/25/11	CalcCr+3	

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P02-15'
R102086-02 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	15.0	5.00	ug/kg	1	1022104	02/21/11	02/25/11	EPA 8270D SIM	
Anthracene	22.3	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	34.9	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	28.0	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	43.6	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	21.6	5.00	"	"	"	"	"	"	
Chrysene	43.0	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	27.2	10.0	"	"	"	"	"	"	
Fluoranthene	27.8	5.00	"	"	"	"	"	"	
Fluorene	113	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	28.5	10.0	"	"	"	"	"	"	
Naphthalene	73.2	5.00	"	"	"	"	"	"	
Pyrene	38.5	5.00	"	"	"	"	"	"	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: Nitrobenzene-d5		87.8 %	30-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		63.1 %	30-120		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		101 %	30-120		"	"	"	"	
Surrogate: Terphenyl-d14		99.1 %	30-120		"	"	"	"	

Total Petroleum Hydrocarbons by 8015

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	630	50	mg/kg	1	1021604	02/16/11	02/17/11	8015 DRO	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P02-15'
R102086-02 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Surrogate: *o*-Terphenyl 112 % 88.8-124 1021604 02/16/11 02/17/11 8015 DRO

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	1021603	02/16/11	02/17/11	EPA 8260B	
Toluene	0.011	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.012	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.041	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		83.6 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.7 %	78.4-125		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.72	0.00100	mmhos/cm	1	1022102	02/21/11	02/22/11	SM 2510b/mod	

Date Sampled: 02/16/11 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.6		pH Units	"	1022103	02/21/11	02/22/11	EPA 9045B	

Colorado Analytical Laboratories

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P02-15'
R102086-02 (Soil)

Summit Scientific

Colorado Analytical Laboratories

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	2	0.1	meq/L	1	1022503	02/22/11	02/25/11	USDA60 6 (20b)	

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	1.3	0.1	"	"	"	"	"	"	

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium	43.9	0.1	"	"	"	"	"	"	

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.31	0.05	mg/kg	"	"	"	"	SW6020	
Barium	459.7	0.1	"	"	"	"	"	"	
Cadmium	1.9	0.1	"	"	"	"	"	"	
Copper	13.4	0.1	"	"	"	"	"	"	
Lead	10.2	0.1	"	"	"	"	"	"	
Nickel	15.5	0.1	"	"	"	"	"	"	
Selenium	0.16	0.05	"	"	"	"	"	"	
Silver	ND	0.1	"	"	"	"	"	"	
Zinc	64.49	0.05	"	"	"	"	"	"	

Colorado Analytical Laboratories - Calculated Analytes

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	34.7	0.1	units	1	1022503	"	02/25/11	Calculation	

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

P02-15'
R102086-02 (Soil)

Summit Scientific

Colorado Analytical Laboratories - Total Metals by APHA/EPA Methods

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.05	mg/kg	1	1022503	02/23/11	02/25/11	EPA 7471A	

Evergreen Analytical Laboratories

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium	8.9	1.2	mg/kg	1	1022504	02/21/11	02/25/11	EPA 6010A	

Evergreen Analytical - 6010 Hexavalent Chromium, Soil (3060A Mod Digest)

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.46	mg/kg	1	1022504	"	02/25/11	SW6010B Cr6	

Evergreen Analytical - Trivalent Chromium, Calculated, Soil Basis

Date Sampled: **02/16/11 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	8.7	1.7	mg/kg	1	1022504	"	02/25/11	CalcCr+3	

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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

Summit Scientific

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

Batch 1022104 - EPA 3550A

Blank (1022104-BLK1)

Prepared: 02/21/11 Analyzed: 02/25/11

Acenaphthene	ND	5.00	ug/kg							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Chrysene	ND	5.00	"							
Dibenz (a,h) anthracene	ND	10.0	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Indeno (1,2,3-cd) pyrene	ND	10.0	"							
Naphthalene	ND	5.00	"							
Pyrene	ND	5.00	"							
Surrogate: Nitrobenzene-d5	28.4		"	33.3		85.1	30-120			
Surrogate: 2-Fluorobiphenyl	27.2		"	33.3		81.6	30-120			
Surrogate: 2,4,6-Tribromophenol	28.4		"	33.3		85.3	30-120			
Surrogate: Terphenyl-d14	28.4		"	33.3		85.3	30-120			

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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

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

Batch 1022104 - EPA 3550A

LCS (1022104-BS1)				Prepared: 02/21/11	Analyzed: 02/25/11					
Acenaphthene	23.8	5.00	ug/kg	33.3	71.3	30-120			30	
Anthracene	23.5	5.00	"	33.3	70.5	30-120			30	
Benzo (a) anthracene	27.6	5.00	"	33.3	82.7	30-120			30	
Benzo (b) fluoranthene	27.3	5.00	"	33.3	81.9	30-120			30	
Benzo (k) fluoranthene	22.1	5.00	"	33.3	66.2	30-120			30	
Benzo (a) pyrene	25.9	5.00	"	33.3	77.6	30-120			30	
Chrysene	24.1	5.00	"	33.3	72.3	30-120			30	
Dibenz (a,h) anthracene	26.0	10.0	"	33.3	77.9	30-120			30	
Fluoranthene	28.7	5.00	"	33.3	86.2	30-120			30	
Fluorene	24.9	5.00	"	33.3	74.6	30-120			30	
Indeno (1,2,3-cd) pyrene	27.5	10.0	"	33.3	82.6	30-120			30	
Naphthalene	23.7	5.00	"	33.3	71.2	30-120			30	
Pyrene	25.5	5.00	"	33.3	76.6	30-120			30	
Surrogate: Nitrobenzene-d5	28.3		"	33.3	84.8	30-120				
Surrogate: 2-Fluorobiphenyl	25.6		"	33.3	76.9	30-120				
Surrogate: 2,4,6-Tribromophenol	24.0		"	33.3	71.9	30-120				
Surrogate: Terphenyl-d14	28.7		"	33.3	86.2	30-120				

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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

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

Batch 1022104 - EPA 3550A

Matrix Spike (1022104-MS1)	Source: R102086-01			Prepared: 02/21/11	Analyzed: 02/25/11						
Acenaphthene	20.0	5.00	ug/kg	33.3	ND	60.0	30-120			30	
Anthracene	24.4	5.00	"	33.3	ND	73.1	30-120			30	
Benzo (a) anthracene	34.3	5.00	"	33.3	ND	103	30-120			30	
Benzo (b) fluoranthene	29.8	5.00	"	33.3	ND	89.4	30-120			30	
Benzo (k) fluoranthene	39.8	5.00	"	33.3	ND	119	30-120			30	
Benzo (a) pyrene	23.1	5.00	"	33.3	ND	69.2	30-120			30	
Chrysene	40.2	5.00	"	33.3	5.74	103	30-120			30	
Dibenz (a,h) anthracene	28.6	10.0	"	33.3	ND	85.9	30-120			30	
Fluoranthene	29.4	5.00	"	33.3	ND	88.3	30-120			30	
Fluorene	81.9	5.00	"	33.3	21.2	182	30-120			30	
Indeno (1,2,3-cd) pyrene	30.9	10.0	"	33.3	ND	92.7	30-120			30	
Naphthalene	40.7	5.00	"	33.3	6.68	102	30-120			30	
Pyrene	36.3	5.00	"	33.3	4.27	96.2	30-120			30	
<i>Surrogate: Nitrobenzene-d5</i>	<i>18.9</i>		<i>"</i>	<i>33.3</i>		<i>56.7</i>	<i>30-120</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>18.2</i>		<i>"</i>	<i>33.3</i>		<i>54.7</i>	<i>30-120</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>27.3</i>		<i>"</i>	<i>33.3</i>		<i>81.9</i>	<i>30-120</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>29.0</i>		<i>"</i>	<i>33.3</i>		<i>86.9</i>	<i>30-120</i>				

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 - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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 1022104 - EPA 3550A

Matrix Spike Dup (1022104-MSD1)	Source: R102086-01			Prepared: 02/21/11		Analyzed: 02/25/11				
Acenaphthene	23.5	5.00	ug/kg	33.3	ND	70.6	30-120	16.2	30	
Anthracene	24.3	5.00	"	33.3	ND	73.0	30-120	0.170	30	
Benzo (a) anthracene	30.6	5.00	"	33.3	ND	91.8	30-120	11.4	30	
Benzo (b) fluoranthene	29.1	5.00	"	33.3	ND	87.2	30-120	2.57	30	
Benzo (k) fluoranthene	33.6	5.00	"	33.3	ND	101	30-120	16.9	30	
Benzo (a) pyrene	22.9	5.00	"	33.3	ND	68.6	30-120	0.743	30	
Chrysene	33.4	5.00	"	33.3	5.74	83.0	30-120	18.6	30	
Dibenz (a,h) anthracene	26.6	10.0	"	33.3	ND	79.8	30-120	7.36	30	
Fluoranthene	27.3	5.00	"	33.3	ND	82.0	30-120	7.43	30	
Fluorene	61.4	5.00	"	33.3	21.2	121	30-120	28.6	30	
Indeno (1,2,3-cd) pyrene	28.1	10.0	"	33.3	ND	84.3	30-120	9.43	30	
Naphthalene	36.1	5.00	"	33.3	6.68	88.4	30-120	11.8	30	
Pyrene	30.7	5.00	"	33.3	4.27	79.2	30-120	16.9	30	
<i>Surrogate: Nitrobenzene-d5</i>	26.7		"	33.3		80.2	30-120			
<i>Surrogate: 2-Fluorobiphenyl</i>	23.3		"	33.3		69.8	30-120			
<i>Surrogate: 2,4,6-Tribromophenol</i>	33.5		"	33.3		100	30-120			
<i>Surrogate: Terphenyl-d14</i>	27.7		"	33.3		83.0	30-120			

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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

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

Total Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1021604 - EPA 3550A

Blank (1021604-BLK1)

Prepared: 02/16/11 Analyzed: 02/17/11

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	14.5		"	12.5		116	88.8-124			

LCS (1021604-BS1)

Prepared: 02/16/11 Analyzed: 02/17/11

C10-C28 (DRO)	474	50	mg/kg	501		94.5	81.4-129		9.26	
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LCS Dup (1021604-BSD1)

Prepared: 02/16/11 Analyzed: 02/17/11

C10-C28 (DRO)	486	50	mg/kg	501		96.9	81.4-129	2.47	9.26	
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Matrix Spike (1021604-MS1)

Source: R102088-01

Prepared: 02/16/11 Analyzed: 02/17/11

C10-C28 (DRO)	497	50	mg/kg	501	27.1	93.9	77.8-133		8.48	
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Matrix Spike Dup (1021604-MSD1)

Source: R102088-01

Prepared: 02/16/11 Analyzed: 02/17/11

C10-C28 (DRO)	496	50	mg/kg	501	27.1	93.7	77.8-133	0.202	8.48	
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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 - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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

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

Batch 1021603 - EPA 5030 Soil MS

Blank (1021603-BLK1)

Prepared: 02/16/11 Analyzed: 02/18/11

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0279</i>		<i>"</i>	<i>0.0400</i>		<i>69.8</i>	<i>67.4-143</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0440</i>		<i>"</i>	<i>0.0400</i>		<i>110</i>	<i>77.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0411</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>78.4-125</i>			

LCS (1021603-BS1)

Prepared: 02/16/11 Analyzed: 02/18/11

Benzene	0.255	0.0050	mg/kg	0.200		128	61-139	0.912	11.1	
Toluene	0.254	0.0050	"	0.200		127	64-132	0.448	10.9	
Ethylbenzene	0.186	0.0050	"	0.200		88.6	68.7-135	4.73	20	
m,p-Xylene	0.332	0.010	"	0.400		80.5	70.4-129	3.23	20	
o-Xylene	0.194	0.0050	"	0.200		93.4	66.9-126	3.57	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0335</i>		<i>"</i>	<i>0.0400</i>		<i>82.8</i>	<i>67.4-143</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0427</i>		<i>"</i>	<i>0.0400</i>		<i>110</i>	<i>77.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>95.7</i>	<i>78.4-125</i>			

LCS Dup (1021603-BSD1)

Prepared: 02/16/11 Analyzed: 02/18/11

Benzene	0.258	0.0050	mg/kg	0.200		129	61-139	0.912	11.1	
Toluene	0.255	0.0050	"	0.200		127	64-132	0.448	10.9	
Ethylbenzene	0.177	0.0050	"	0.200		88.6	68.7-135	4.73	20	
m,p-Xylene	0.322	0.010	"	0.400		80.5	70.4-129	3.23	20	
o-Xylene	0.187	0.0050	"	0.200		93.4	66.9-126	3.57	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0331</i>		<i>"</i>	<i>0.0400</i>		<i>82.8</i>	<i>67.4-143</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0439</i>		<i>"</i>	<i>0.0400</i>		<i>110</i>	<i>77.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0383</i>		<i>"</i>	<i>0.0400</i>		<i>95.7</i>	<i>78.4-125</i>			

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

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

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

Batch 1021603 - EPA 5030 Soil MS

Matrix Spike (1021603-MS1)	Source: R102088-01			Prepared: 02/16/11	Analyzed: 02/18/11					
Benzene	0.232	0.0050	mg/kg	0.200	ND	116	42.9-137			17.9
Toluene	0.229	0.0050	"	0.200	ND	114	42.6-130			11.9
Ethylbenzene	0.163	0.0050	"	0.200	ND	81.4	39-133			20
m,p-Xylene	0.288	0.010	"	0.400	ND	72.0	34.7-134			20
o-Xylene	0.168	0.0050	"	0.200	ND	84.1	41.3-126			20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0327</i>		<i>"</i>	<i>0.0400</i>		<i>81.7</i>	<i>67.4-143</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0430</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>77.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0397</i>		<i>"</i>	<i>0.0400</i>		<i>99.2</i>	<i>78.4-125</i>			

Matrix Spike Dup (1021603-MSD1)	Source: R102088-01			Prepared: 02/16/11	Analyzed: 02/18/11					
Benzene	0.215	0.0050	mg/kg	0.200	ND	107	42.9-137	7.49		17.9
Toluene	0.213	0.0050	"	0.200	ND	106	42.6-130	7.26		11.9
Ethylbenzene	0.150	0.0050	"	0.200	ND	75.2	39-133	7.91		20
m,p-Xylene	0.269	0.010	"	0.400	ND	67.4	34.7-134	6.60		20
o-Xylene	0.157	0.0050	"	0.200	ND	78.6	41.3-126	6.82		20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0323</i>		<i>"</i>	<i>0.0400</i>		<i>80.8</i>	<i>67.4-143</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0435</i>		<i>"</i>	<i>0.0400</i>		<i>109</i>	<i>77.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>78.4-125</i>			

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
 Project Manager: Brian Dodek

Reported:
 02/25/11 15:11

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

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

Batch 1022102 - General Preparation

Duplicate (1022102-DUP1)	Source: R102086-01			Prepared: 02/21/11	Analyzed: 02/22/11
Specific Conductance (EC)	1.52	0.00100	mmhos/cm	1.36	10.9 20

Batch 1022103 - General Preparation

Duplicate (1022103-DUP1)	Source: R102086-01			Prepared: 02/21/11	Analyzed: 02/22/11
pH	8.9		pH Units	8.8	0.113 20

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
02/25/11 15:11

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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

March 21, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: BBC - Circle B10

Enclosed are the results of analyses for samples received by Summit Scientific on 03/09/11 10:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David Shrewsbury For Ben Shrewsbury
President / Laboratory Director



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PO1-18'	R103063-01	Soil	03/07/11 10:35	03/09/11 10:00
PO2-18'	R103063-03	Soil	03/07/11 10:20	03/09/11 10:00



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

Project: BBC - Circle B10

Project Number: BBC 1010
 Project Manager: Brian Dodek

Reported:
 03/21/11 09:23

PO1-18'
R103063-01 (Soil)

Summit Scientific

Colorado Analytical Laboratories

Date Sampled: **03/07/11 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	5.6	0.1	meq/L	1	1032101	03/17/11	03/21/11	USDA60 6 (20b)	

Date Sampled: **03/07/11 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	4.3	0.1	"	"	"	"	"	"	

Date Sampled: **03/07/11 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium	17.9	0.1	"	"	"	"	"	"	

Colorado Analytical Laboratories - Calculated Analytes

Date Sampled: **03/07/11 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8	0.1	units	1	1032101	"	03/21/11	Calculation	



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

PO2-18'
R103063-03 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	1030909	03/15/11	03/17/11	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	10.0	"	"	"	"	"	"	
Naphthalene	18.2	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: Nitrobenzene-d5</i>		49.3 %	30-120		"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		66.2 %	30-120		"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		99.8 %	30-120		"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		105 %	30-120		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (GRO)	ND	50	mg/kg	1	1031605	03/16/11	03/16/11	8015 Modified	
C10-C28 (DRO)	ND	50	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

PO2-18'
R103063-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		110 %	88.8-124		1031605	03/16/11	03/16/11	8015 Modified	
Surrogate: Trifluorotoluene		108 %	81.5-126		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	10		pH Units	1	1031102	03/11/11	03/11/11	EPA 9045B	

Colorado Analytical Laboratories

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1	0.1	meq/L	1	1032101	03/17/11	03/21/11	USDA60 6 (20b)	

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	2.1	0.1	"	"	"	"	"	"	

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium	37.5	0.1	"	"	"	"	"	"	

Colorado Analytical Laboratories - Calculated Analytes

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

PO2-18'
R103063-03 (Soil)

Summit Scientific

Colorado Analytical Laboratories - Calculated Analytes

Date Sampled: **03/07/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	30	0.1	units	1	1032101	03/17/11	03/21/11	Calculation	



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

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

Summit Scientific

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

Batch 1030909 - EPA 3550A

Blank (1030909-BLK1)

Prepared: 03/15/11 Analyzed: 03/16/11

Acenaphthene	ND	5.00	ug/kg							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Chrysene	ND	5.00	"							
Dibenz (a,h) anthracene	ND	10.0	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Indeno (1,2,3-cd) pyrene	ND	10.0	"							
Naphthalene	ND	5.00	"							
Pyrene	ND	5.00	"							
<i>Surrogate: Nitrobenzene-d5</i>	26.9		"	33.3		80.6	30-120			
<i>Surrogate: 2-Fluorobiphenyl</i>	26.9		"	33.3		80.6	30-120			
<i>Surrogate: 2,4,6-Tribromophenol</i>	29.6		"	33.3		88.7	30-120			
<i>Surrogate: Terphenyl-d14</i>	30.7		"	33.3		92.0	30-120			



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

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

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

Batch 1030909 - EPA 3550A

LCS (1030909-BS1)

Prepared: 03/15/11 Analyzed: 03/16/11

Acenaphthene	28.1	5.00	ug/kg	33.3		84.4	30-120		30	
Anthracene	25.9	5.00	"	33.3		77.6	30-120		30	
Benzo (a) anthracene	31.1	5.00	"	33.3		93.3	30-120		30	
Benzo (b) fluoranthene	28.6	5.00	"	33.3		85.9	30-120		30	
Benzo (k) fluoranthene	26.8	5.00	"	33.3		80.5	30-120		30	
Benzo (a) pyrene	28.9	5.00	"	33.3		86.8	30-120		30	
Chrysene	26.9	5.00	"	33.3		80.6	30-120		30	
Dibenz (a,h) anthracene	26.2	10.0	"	33.3		78.5	30-120		30	
Fluoranthene	33.5	5.00	"	33.3		100	30-120		30	
Fluorene	29.9	5.00	"	33.3		89.8	30-120		30	
Indeno (1,2,3-cd) pyrene	27.4	10.0	"	33.3		82.1	30-120		30	
Naphthalene	26.9	5.00	"	33.3		80.7	30-120		30	
Pyrene	28.6	5.00	"	33.3		85.8	30-120		30	
<i>Surrogate: Nitrobenzene-d5</i>	<i>31.8</i>		<i>"</i>	<i>33.3</i>		<i>95.3</i>	<i>30-120</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>29.6</i>		<i>"</i>	<i>33.3</i>		<i>88.8</i>	<i>30-120</i>			
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>28.9</i>		<i>"</i>	<i>33.3</i>		<i>86.8</i>	<i>30-120</i>			
<i>Surrogate: Terphenyl-d14</i>	<i>31.4</i>		<i>"</i>	<i>33.3</i>		<i>94.1</i>	<i>30-120</i>			



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

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

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

Batch 1030909 - EPA 3550A

Matrix Spike (1030909-MS1)	Source: R103062-02			Prepared: 03/15/11	Analized: 03/16/11						
Acenaphthene	25.7	5.00	ug/kg	33.3	ND	77.2	30-120			30	
Anthracene	25.6	5.00	"	33.3	ND	76.9	30-120			30	
Benzo (a) anthracene	30.4	5.00	"	33.3	ND	91.2	30-120			30	
Benzo (b) fluoranthene	31.5	5.00	"	33.3	3.15	85.1	30-120			30	
Benzo (k) fluoranthene	27.6	5.00	"	33.3	ND	82.7	30-120			30	
Benzo (a) pyrene	28.1	5.00	"	33.3	ND	84.2	30-120			30	
Chrysene	25.5	5.00	"	33.3	ND	76.5	30-120			30	
Dibenz (a,h) anthracene	28.5	10.0	"	33.3	ND	85.4	30-120			30	
Fluoranthene	30.0	5.00	"	33.3	ND	90.0	30-120			30	
Fluorene	27.2	5.00	"	33.3	ND	81.7	30-120			30	
Indeno (1,2,3-cd) pyrene	24.0	10.0	"	33.3	ND	72.1	30-120			30	
Naphthalene	39.9	5.00	"	33.3	6.40	101	30-120			30	
Pyrene	29.9	5.00	"	33.3	ND	89.6	30-120			30	
<i>Surrogate: Nitrobenzene-d5</i>	<i>22.0</i>		<i>"</i>	<i>33.3</i>		<i>65.9</i>	<i>30-120</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>26.1</i>		<i>"</i>	<i>33.3</i>		<i>78.4</i>	<i>30-120</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>32.5</i>		<i>"</i>	<i>33.3</i>		<i>97.4</i>	<i>30-120</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>29.8</i>		<i>"</i>	<i>33.3</i>		<i>89.5</i>	<i>30-120</i>				



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

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

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

Batch 1030909 - EPA 3550A

Matrix Spike Dup (1030909-MSD1)	Source: R103062-02			Prepared: 03/15/11	Analyzed: 03/16/11					
Acenaphthene	27.3	5.00	ug/kg	33.3	ND	81.8	30-120	5.78	30	
Anthracene	25.7	5.00	"	33.3	ND	77.2	30-120	0.373	30	
Benzo (a) anthracene	30.3	5.00	"	33.3	ND	90.8	30-120	0.450	30	
Benzo (b) fluoranthene	30.1	5.00	"	33.3	3.15	80.8	30-120	4.67	30	
Benzo (k) fluoranthene	25.6	5.00	"	33.3	ND	76.8	30-120	7.37	30	
Benzo (a) pyrene	27.6	5.00	"	33.3	ND	82.8	30-120	1.77	30	
Chrysene	26.3	5.00	"	33.3	ND	79.0	30-120	3.25	30	
Dibenz (a,h) anthracene	28.3	10.0	"	33.3	ND	84.9	30-120	0.628	30	
Fluoranthene	30.6	5.00	"	33.3	ND	91.9	30-120	2.03	30	
Fluorene	33.1	5.00	"	33.3	ND	99.4	30-120	19.5	30	
Indeno (1,2,3-cd) pyrene	24.8	10.0	"	33.3	ND	74.3	30-120	3.09	30	
Naphthalene	45.8	5.00	"	33.3	6.40	118	30-120	13.8	30	
Pyrene	30.1	5.00	"	33.3	ND	90.2	30-120	0.642	30	
<i>Surrogate: Nitrobenzene-d5</i>	23.7		"	33.3		71.2	30-120			
<i>Surrogate: 2-Fluorobiphenyl</i>	28.6		"	33.3		85.9	30-120			
<i>Surrogate: 2,4,6-Tribromophenol</i>	34.1		"	33.3		102	30-120			
<i>Surrogate: Terphenyl-d14</i>	29.4		"	33.3		88.2	30-120			



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

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Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

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

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

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1031605 - EPA 3550A

Blank (1031605-BLK1)

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	ND	50	mg/kg							
C10-C28 (DRO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5		108	88.8-124			
Surrogate: Trifluorotoluene	27.0		"	25.0		108	81.5-126			

Blank (1031605-BLK2)

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	ND	50	mg/kg							
C10-C28 (DRO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	13.8		"	12.5		110	88.8-124			
Surrogate: Trifluorotoluene	27.3		"	25.0		109	81.5-126			

LCS (1031605-BS1)

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	490	50	mg/kg	500		97.1				
C10-C28 (DRO)	ND	50	"				81.4-129		9.26	
Surrogate: <i>o</i> -Terphenyl	13.7		"	0.116		NR	88.8-124			
Surrogate: Trifluorotoluene	28.2		"	0.232		NR	81.5-126			

LCS (1031605-BS2)

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	ND	50	mg/kg							
C10-C28 (DRO)	530	50	"	501		105	81.4-129		9.26	
Surrogate: <i>o</i> -Terphenyl	13.8		"	12.5		110	88.8-124			
Surrogate: Trifluorotoluene	27.0		"	25.0		108	81.5-126			

LCS Dup (1031605-BSD1)

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	490	50	mg/kg	500		99.0			1.94	
C10-C28 (DRO)	ND	50	"				81.4-129		9.26	
Surrogate: <i>o</i> -Terphenyl	13.9		"	0.116		NR	88.8-124			
Surrogate: Trifluorotoluene	28.5		"	0.232		NR	81.5-126			

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1031605 - EPA 3550A

LCS Dup (1031605-BSD2)

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	ND	50	mg/kg							
C10-C28 (DRO)	530	50	"	501		105	81.4-129	0.0175	9.26	
Surrogate: <i>o</i> -Terphenyl	13.7		"	12.5		109	88.8-124			
Surrogate: Trifluorotoluene	26.8		"	25.0		107	81.5-126			

Matrix Spike (1031605-MS1)

Source: R103063-03

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	490	50	mg/kg	500	ND	97.4				
C10-C28 (DRO)	ND	50	"		ND		77.8-133		8.48	
Surrogate: <i>o</i> -Terphenyl	14.0		"	0.116		NR	88.8-124			
Surrogate: Trifluorotoluene	28.7		"	0.232		NR	81.5-126			

Matrix Spike (1031605-MS2)

Source: R103063-03

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	ND	50	mg/kg		ND					
C10-C28 (DRO)	530	50	"	501	ND	105	77.8-133		8.48	
Surrogate: <i>o</i> -Terphenyl	13.8		"	12.5		110	88.8-124			
Surrogate: Trifluorotoluene	27.2		"	25.0		109	81.5-126			

Matrix Spike Dup (1031605-MSD1)

Source: R103063-03

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	490	50	mg/kg	500	ND	97.6		0.233		
C10-C28 (DRO)	ND	50	"		ND		77.8-133		8.48	
Surrogate: <i>o</i> -Terphenyl	13.9		"	0.116		NR	88.8-124			
Surrogate: Trifluorotoluene	28.7		"	0.232		NR	81.5-126			

Matrix Spike Dup (1031605-MSD2)

Source: R103063-03

Prepared: 03/16/11 Analyzed: 03/17/11

C6-C10 (GRO)	ND	50	mg/kg		ND					
C10-C28 (DRO)	520	50	"	501	ND	104	77.8-133	1.42	8.48	
Surrogate: <i>o</i> -Terphenyl	13.7		"	12.5		110	88.8-124			
Surrogate: Trifluorotoluene	27.0		"	25.0		108	81.5-126			



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

Project: BBC - Circle B10

Project Number: BBC 1010
 Project Manager: Brian Dodek

Reported:
 03/21/11 09:23

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

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

Batch 1031102 - General Preparation

Duplicate (1031102-DUP1)	Source: R103060-01			Prepared & Analyzed: 03/11/11						
pH	8.5		pH Units	8.5				0.236	20	



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
03/21/11 09:23

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 11, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: BBC - Circle B10

Enclosed are the results of analyses for samples received by Summit Scientific on 03/30/11 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 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
04/11/11 11:21

PO2-24'
R103183-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/28/11 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	10		pH Units	1	1040504	04/05/11	04/07/11	EPA 9045B	

Colorado Analytical Laboratories

Date Sampled: **03/28/11 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	10.7	0.1	meq/L	1	1041103	04/08/11	04/11/11	USDA60 6 (20b)	

Date Sampled: **03/28/11 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	2.1	0.1	"	"	"	"	"	"	

Date Sampled: **03/28/11 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium	18.4	0.1	"	"	"	"	"	"	

Colorado Analytical Laboratories - Calculated Analytes

Date Sampled: **03/28/11 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.3	0.1	units	1	1041103	"	04/11/11	Calculation	

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
 Project Manager: Brian Dodek

Reported:
 04/11/11 11:21

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

Summit Scientific

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

Batch 1040504 - General Preparation

Duplicate (1040504-DUP1)	Source: R103183-01			Prepared: 04/05/11	Analyzed: 04/07/11					
pH	10		pH Units	10			1.19		20	

Summit Scientific

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

Project: BBC - Circle B10

Project Number: BBC 1010
Project Manager: Brian Dodek

Reported:
04/11/11 11:21

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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.