Shell Exploration & Production

SWEPI LP
4582 S. Ulster St., Suite 1400
Stanford Place III
Denver, Colorado 80237-2642
United States

November 5, 2013

Attn: Alex Fischer
Environmental Supervisor, West Region
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

RE: SWEPI LP – Durham WT #2 Production Facility
API Number: 05-081-05171
Location ID: 312760
SENW, S8, T4N, R90W, 6th PM
Initial Form 27 Submittal – Historical Production Pit Closure Process (Facility ID 116583)

Dear Mr. Fischer:

SWEPI LP (Shell) is providing the enclosed Colorado Oil and Gas Conservation Commission (COGCC) Form 27, Site Investigation and Remediation Workplan to provide detailed description of site investigation activities that have occurred at the Durham WT #2 location and provide the laboratory analytical results in support of obtaining closure of this historical production pit.

During review of COGCC's online database, SWEPI LP identified that a historical production pit previously operated at the Durham WT #2 location under a former operator identified as Kaiser-Francis Oil Company in COGCC's database. This Form 27 submittal has been prepared for the purpose of generating a Remediation Project Number in support of the closure of the Durham WT #2 production pit (Facility ID 116583) in the Waddle Creek field of operations.

A production pit has not existed at the Durham WT #2 location since SWEPI LP acquired the production facility from East Resources Management LLC, the previous owner/operator. SWEPI LP has conducted site investigation activities to provide documentation for properly closing the historical production pit that had not been closed with proper clearance sampling or permit approvals. This document presents SWEPI LP's approach to conducting the investigation for potential impacts within the interpreted pit boundary. SWEPI LP has commenced soil excavation and soil sampling activities to identify the extent of impacts, if any, at the Durham WT #2 production facility as a result of the historical production pit. The analytical results from the soil sampling is included herein as documentation for closure of the legacy production pit that is still considered open in COGCC's online database.

Enclosed with this cover letter is the COGCC Form 27. Also enclosed for documentation purposes are:

- Figure 1 – As-Built Site Plan illustrating the Durham WT #2 site boundary;
- Figure 2 – Site Map depicting extents of former production pit with associated GPS points and sample locations;
- Table 1 – Soil Analytical Results table of the soil samples collected
- Table 2 – Soil Analytical Results tables of the background soil samples collected
- Table 3 – Soil Analytical Results table of soil samples collected from the spoils pile
- Attachment A – Raw laboratory analytical results

Based upon the enclosed laboratory analytical results of the soil samples collected from the legacy production pit location, all sample results are below COGCC Table 910-1 concentration threshold levels with the exception of arsenic. However, arsenic concentrations are within background concentration levels typical for this area of Colorado, as identified in the background laboratory analytical provided herein. As a result, SWEPI LP requests that COGCC categorize this former production pit (Facility ID 116583) as "Closed" in the COGIS database.

If you have any questions or require additional information, please contact me at (303) 222-6365 or via email at charles.cornell@shell.com.

Sincerely,

Charles Cornell
Sr. Environmental & Regulatory Specialist

Enclosure

COGCC FORM 27

FORM
27
Rev 6/99

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109

#8173

FOR OGCC USE ONLY

RECEIVED
11/5/2013

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): legacy production pit; Pit ID 116583

OGCC Operator Number: 78110
Name of Operator: SWEPI LP
Address: 4582 S. Ulster Street Parkway, Suite 1400
City: Denver State: CO Zip: 80237

Contact Name and Telephone:
Charles Cornell
No: 303-222-6365
Fax: 303-222-6346

API Number: 05-081-05171
County: Moffat
Facility Name: Durham W T-64N90W8SENW
Facility Number: 312760
Well Name: Durham W T
Well Number: #2
Location: (QtrQtr, Sec, Twp, Rng, Meridian): SENW, S8, T4N, R90W, 6th PM
Latitude: 40.330597 Longitude: -107.531139

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): crude oil and/or produced water storage in former production pit

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.): uncultivated rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan:

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Nearest downgradient surface water measured at approx. 840 ft to the North

No water wells identified within 1/4 mile of location; nearest water well identified approx. 3700 ft to SW of location

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

Impacted Media (check):	Extent of Impact:	How Determined:
☑ Soils	soils minimally impacted; below COGCC Table 910-1 levels	soil sampling and laboratory analysis
☐ Vegetation		
☐ Groundwater		
☐ Surface Water		

REMEDIATION WORKPLAN

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

See attachment for further description

Describe how source is to be removed:

See attachment for further description

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.:

See attachment for further description

Submit Page 2 with Page 1

FORM 27 Rev 6/99

Page 2

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax:(303)894-2109

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

REMEDIATION WORKPLAN (Cont.)

OGCC Employee:

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

See attachment for further description

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

See attachment for further description

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 ☐ N If yes, describe:

See attachment for further description

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

See attachment for further description

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: July 2013	Date Site Investigation Completed: October 2013	Date Remediation Plan Submitted: November 2013
Remediation Start Date: July 2013	Anticipated Completion Date: October 2013	Actual Completion Date: October 2013

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

Print Name: Charles Cornell Signed: _____

Title: Sr. Environmental & Regulatory Specialist Date: 11/5/2013

OGCC Approved: _____ Title: Environmental Protection Specialist Date: 1/30/14

COGCC FORM 27 ATTACHMENT

COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.

820 Megan Avenue, Unit B
Rifle, Colorado 81650
T 970.285.9985 / F 970.285.2467

Durham WT #2 (Location ID – 312760, Facility ID – 116583)
SWEPI LP (Operator – 78110)
Form 27 (Site Investigation and Remediation Workplan)
Narrative Attachment
Document Date – 11/4/2013

REMEDIATION WORKPLAN

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

Using the Colorado Oil & Gas Conservation Commission (COGCC) database and historical aerial photographs, SWEPI LP identified the location of the former production pit on the Durham WT #2 facility. The identified pit location is illustrated on a Site Map provided as Figure 2.

On July 18, 2013, at the request of SWEPI LP, LT Environmental Inc. (LTE) assessed the facility for the potential for impacted soil by excavating the extent both vertically and laterally in the area of the former production pit. The excavated material was field-screened by a LTE scientist for potential petroleum hydrocarbon impacts. The excavated soil was collected and screened using a photo-ionization detector (PID) to monitor the soil headspace for the presence of volatile organic vapors.

Clearance soil samples were collected on the bottom and side walls of the excavation extent. Soil samples were submitted for laboratory analysis conducted in accordance with COGCC Rule 910.

Describe how source is to be removed:

Impacted soils were excavated in the production pit extent; discrete soil samples were collected from the side walls and bottom to determine the extent of the potential contamination. Confirmation soil samples were collected on the north, south, east and west walls of the pit, as well as, the base. Soil samples were submitted to a certified laboratory for analysis conducted in accordance with COGCC Rule 910-1.

Representative background soil samples from the pad perimeter were collected for the analysis for arsenic, EC, pH and SAR.

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.:

Excavated soils were stockpiled on an impervious liner on the Durham WT #2 facility. Soil samples were collected from the stockpiled material and submitted to a laboratory for analysis in accordance with COGCC Rule 910-1. Analytical results are provided in Table 3, which is attached to this submittal and are below COGCC Table 910-1 concentration threshold levels.

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

No groundwater was encountered during the onsite excavation activities. Depth to groundwater is estimated to be greater than 50 feet below ground surface.

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

The surface of the pit area and exposed excavation has been backfilled with clean soils to match existing grade. Soils will be re-seeded, using native seed mixes as approved for use by Moffat County and the surface owner, upon completion of final grading if seasonal weather conditions allow.

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

Laboratory analytical results are summarized in Tables 1, 2 and 3 of this Form 27 submittal and are provided in Attachment A to this Form 27.

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

Excavated soil was mixed with other excavated material on site associated with an excavation around the Durham WT #2 wellhead (API # 05-081-05171). Final disposition of the excavated material will be detailed in Form 4 (Notice of Completion) submitted in support of Remediation Project #7756.

FIGURE 1
AS-BUILT SITE PLAN

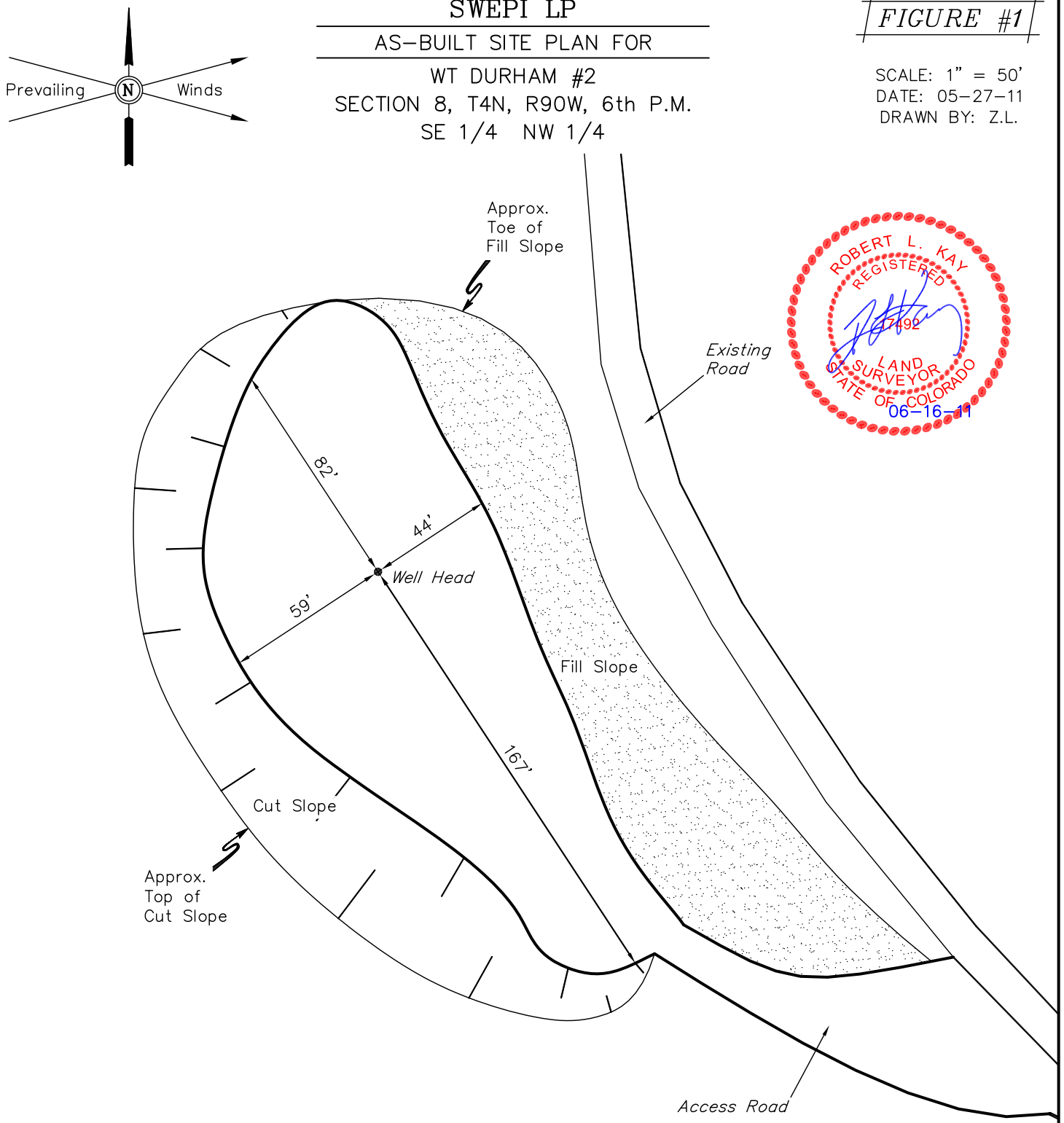
SWEPI LP

AS-BUILT SITE PLAN FOR

WT DURHAM #2
SECTION 8, T4N, R90W, 6th P.M.
SE 1/4 NW 1/4

FIGURE #1

SCALE: 1" = 50'
DATE: 05-27-11
DRAWN BY: Z.L.



ROBERT L. KAY
REGISTERED
17492
LAND
SURVEYOR
STATE OF COLORADO
06-16-11

UINTAH ENGINEERING & LAND SURVEYING
*85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017*

FIGURE 2
SITE MAP OF FORMER PRODUCTION PIT

GPS POINT	LAT.	LONG.
PSW	40.330626	-107.531349
PNW	40.330662	-107.531299
PNE	40.330573	-107.531241
PSE	40.330553	-107.531304

LEGEND

- SOIL SAMPLE
- GPS PIT CORNER
- EXTENT OF FORMER PIT

0 50 100

Feet

N

FIGURE 2
SITE MAP
DURHAM WT #2 PIT
MOFFAT COUNTY, COLORADO

SHELL EXPLORATION AND PRODUCTION COMPANY

P:\Shell E&P\GIS\MXD\034312009_WT_DURHAM_#2\034312009_FIG02_SITE_AERIAL.mxd

TABLE 1
SOIL ANALYTICAL RESULTS SUMMARY
PRODUCTION PIT AREA SAMPLES

TABLE 1

SOIL ANALYTICAL RESULTS
PIT CLOSURE
WT DURHAM #2
MOFFAT COUNTY, COLORADO
SWEPI LP

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	BASE01	EW01	NW01	WW	SW
Depth BGS			9 ft.	6 ft.	6 ft.	6 ft.	6 ft.
Sample Date			7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013
Sample Type			Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
Arsenic	0.39	mg/kg	**4.3**	**8.8**	**7.5**	**6.9**	**8.4**
Barium	15,000	mg/kg	120	45	39	52	66
Cadmium	70	mg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Chromium (III)	120,000	mg/kg	8.3	14	15	16	17
Chromium (VI)	23	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
Copper	3,100	mg/kg	5.5	12	12	16	12
Lead	400	mg/kg	6.1	12	12	13	13
Mercury	23	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
Nickel	1,600	mg/kg	8.6	16	14	14	13
Selenium	390	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	390	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	23,000	mg/kg	30	57	57	56	58
EC	4.0	mmhos/cm	1.5	2.0	2.2	1.4	1.4
pH	6 - 9	SU	8.2	8.3	8.5	8.4	8.2
SAR	12	unitless	1.6	1.7	1.8	1.5	0.93
TPH-GRO		mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
TPH-DRO		mg/kg	<4.0	460	100	<4.0	10
TPH	500	mg/kg	<4.5	460	100	<4.5	10
Benzene	0.17	mg/kg	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Toluene	85	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene	100	mg/kg	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Total Xylenes	175	mg/kg	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075
Acenaphthene	1000	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Anthracene	1000	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Benzo(A)anthracene	0.22	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Benzo(B)fluoranthene	0.22	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Benzo(K)fluoranthene	2.2	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Benzo(A)pyrene	0.022	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Chrysene	22	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Fluoranthene	1000	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Fluorene	1000	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060
Naphthalene	23	mg/kg	<0.020	<0.40	<0.020	<0.020	<0.020
Pyrene	1000	mg/kg	<0.0060	<0.12	<0.0060	<0.0060	<0.0060

NOTES:
ft. - feet
< - less than the stated laboratory detection limit
BGS - below ground surface
BOLD - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC- electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
NA - not analyzed
SU - standard unit
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO and TPH-DRO

TABLE 2
SOIL ANALYTICAL RESULTS SUMMARY
BACKGROUND SOIL SAMPLES

TABLE 2

BACKGROUND SOIL ANALYTICAL RESULTS
PIT CLOSURE
WT DURHAM #2
MOFFAT COUNTY, COLORADO
SWEPI LP

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	BG01	BG02
Depth BGS			6 in	6 in
Sample Date			7/19/2013	7/19/2013
Sample Type			Confirmation	Confirmation
Arsenic	0.39	mg/kg	**5.0**	**4.6**
Barium	15,000	mg/kg	NA	NA
Cadmium	70	mg/kg	NA	NA
Chromium (III)	120,000	mg/kg	NA	NA
Chromium (VI)	23	mg/kg	NA	NA
Copper	3,100	mg/kg	NA	NA
Lead	400	mg/kg	NA	NA
Mercury	23	mg/kg	NA	NA
Nickel	1,600	mg/kg	NA	NA
Selenium	390	mg/kg	NA	NA
Silver	390	mg/kg	NA	NA
Zinc	23,000	mg/kg	NA	NA
EC	4.0	mmhos/cm	1.3	1.3
pH	6 - 9	SU	6.9	6.9
SAR	12	unitless	0.53	0.41
TPH-GRO		mg/kg	NA	NA
TPH-DRO		mg/kg	NA	NA
TPH	500	mg/kg	NA	NA
Benzene	0.17	mg/kg	NA	NA
Toluene	85	mg/kg	NA	NA
Ethylbenzene	100	mg/kg	NA	NA
Total Xylenes	175	mg/kg	NA	NA
Acenaphthene	1000	mg/kg	NA	NA
Anthracene	1000	mg/kg	NA	NA
Benzo(A)anthracene	0.22	mg/kg	NA	NA
Benzo(B)fluoranthene	0.22	mg/kg	NA	NA
Benzo(K)fluoranthene	2.2	mg/kg	NA	NA
Benzo(A)pyrene	0.022	mg/kg	NA	NA
Chrysene	22	mg/kg	NA	NA
Dibenzo(A,H)anthracene	0.022	mg/kg	NA	NA
Fluoranthene	1000	mg/kg	NA	NA
Fluorene	1000	mg/kg	NA	NA
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	NA	NA
Naphthalene	23	mg/kg	NA	NA
Pyrene	1000	mg/kg	NA	NA

NOTES:
in. - inches
< - less than the stated laboratory detection limit
BGS - below ground surface
BOLD - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC- electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
NA - not analyzed
SU - standard unit
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO and TPH-DRO

TABLE 3
SOIL ANALYTICAL RESULTS SUMMARY
SOIL STOCKPILE SAMPLES

TABLE 3

SPOILS ANALYTICAL RESULTS
PIT CLOSURE
WT DURHAM #2
MOFFAT COUNTY, COLORADO
SWEPI LP

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	Durham WT # 2 Spoils01	Durham WT # 2 Spoils02
Sample Date			10/4/2013	10/4/2013
Sample Type			Spoils	Spoils
Arsenic	0.39	mg/kg	**5.09**	**3.70**
Barium	15,000	mg/kg	73.9	104
Cadmium	70	mg/kg	0.142	0.181
Chromium (III)	120,000	mg/kg	11.9	12.7
Chromium (VI)	23	mg/kg	<1.13	<1.23
Copper	3,100	mg/kg	10.6	9.69
Lead	400	mg/kg	14.1	17.3
Mercury	23	mg/kg	0.0433	<0.0471
Nickel	1,600	mg/kg	15.8	13.6
Selenium	390	mg/kg	0.528	0.132
Silver	390	mg/kg	<0.0818	<0.0901
Zinc	23,000	mg/kg	20.6	19.4
EC	4.0	mmhos/cm	0.366	0.247
pH	6 - 9	SU	8.57	7.14
SAR	12	unitless	0.650	0.180
TPH-GRO		mg/kg	<0.50	<0.50
TPH-DRO		mg/kg	<50.0	<50.0
TPH	500	mg/kg	<50.50	<50.50
Benzene	0.17	mg/kg	<0.0020	<0.0020
Toluene	85	mg/kg	<0.0050	<0.0050
Ethylbenzene	100	mg/kg	<0.0050	<0.0050
Total Xylenes	175	mg/kg	<0.0050	<0.0050
Acenaphthene	1000	mg/kg	<0.005	<0.005
Anthracene	1000	mg/kg	<0.005	<0.005
Benzo(A)anthracene	0.22	mg/kg	<0.005	<0.005
Benzo(B)fluoranthene	0.22	mg/kg	<0.005	<0.005
Benzo(K)fluoranthene	2.2	mg/kg	<0.005	<0.005
Benzo(A)pyrene	0.022	mg/kg	<0.005	<0.005
Chrysene	22	mg/kg	<0.005	<0.005
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.005	<0.005
Fluoranthene	1000	mg/kg	<0.005	<0.005
Fluorene	1000	mg/kg	<0.005	<0.005
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.005	<0.005
Naphthalene	23	mg/kg	<0.005	<0.005
Pyrene	1000	mg/kg	<0.005	<0.005

NOTES:
< - less than the stated reporting limit
BOLD - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC- electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
SAR- Sodium Adsorption Ratio
SU - standard unit
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO and TPH-DRO

ATTACHMENT A
RAW LABORATORY ANALYTICAL DATA

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

Report Summary

Tuesday August 06, 2013

Report Number: L648948
Samples Received: 07/25/13
Client Project: 034312009

Description: WT Durham 2 Pit

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: _____

Jarred Willis , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.
Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

ESC LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-01

Site ID :

Project # : 034312009

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Sample ID : BASE01 9FT

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/31/13	1
Chromium,Trivalent	8.3	0.50	mg/kg	Calc.	08/02/13	1
ORP	140		mV	2580 B-2011	07/31/13	1
pH	8.2		su	9045D	08/01/13	1
Sodium Adsorption Ratio	1.6			Calc.	07/31/13	1
Specific Conductance	150		umhos/cm	9050AMod	07/31/13	1
Mercury	BDL	0.020	mg/kg	7471	07/31/13	1
Arsenic	4.3	1.0	mg/kg	6010B	08/02/13	1
Barium	120	0.25	mg/kg	6010B	08/02/13	1
Cadmium	BDL	0.25	mg/kg	6010B	08/02/13	1
Chromium	8.3	0.50	mg/kg	6010B	08/02/13	1
Copper	5.5	1.0	mg/kg	6010B	08/02/13	1
Lead	6.1	0.25	mg/kg	6010B	08/02/13	1
Nickel	8.6	1.0	mg/kg	6010B	08/02/13	1
Selenium	BDL	1.0	mg/kg	6010B	08/05/13	1
Silver	BDL	0.50	mg/kg	6010B	08/02/13	1
Zinc	30.	1.5	mg/kg	6010B	08/02/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	07/30/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/30/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/30/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/30/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/30/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.3		% Rec.	8021/8015	07/30/13	5
a,a,a-Trifluorotoluene(PID)	98.6		% Rec.	8021/8015	07/30/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	08/02/13	1
Surrogate recovery(%)						
o-Terphenyl	82.4		% Rec.	3546/DRO	08/02/13	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L648948-01 (PH) - 8.2@21.3c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Sample ID : BASE01 9FT

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:15

ESC Sample # : L648948-01

Site ID :

Project # : 034312009

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
Surrogate Recovery						
Nitrobenzene-d5	91.9		% Rec.	8270C-SIM	08/02/13	1
2-Fluorobiphenyl	85.6		% Rec.	8270C-SIM	08/02/13	1
p-Terphenyl-d14	86.4		% Rec.	8270C-SIM	08/02/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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L648948-01 (PH) - 8.2@21.3c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-02

Site ID :

Project # : 034312009

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Sample ID : EW01 6FT

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/31/13	1
Chromium,Trivalent	14.	0.50	mg/kg	Calc.	08/02/13	1
ORP	140		mV	2580 B-2011	07/31/13	1
pH	8.3		su	9045D	08/01/13	1
Sodium Adsorption Ratio	1.7			Calc.	07/31/13	1
Specific Conductance	200		umhos/cm	9050AMod	07/31/13	1
Mercury	BDL	0.020	mg/kg	7471	07/31/13	1
Arsenic	8.8	1.0	mg/kg	6010B	08/02/13	1
Barium	45.	0.25	mg/kg	6010B	08/02/13	1
Cadmium	BDL	0.25	mg/kg	6010B	08/02/13	1
Chromium	14.	0.50	mg/kg	6010B	08/02/13	1
Copper	12.	1.0	mg/kg	6010B	08/02/13	1
Lead	12.	0.25	mg/kg	6010B	08/02/13	1
Nickel	16.	1.0	mg/kg	6010B	08/02/13	1
Selenium	BDL	1.0	mg/kg	6010B	08/05/13	1
Silver	BDL	0.50	mg/kg	6010B	08/02/13	1
Zinc	57.	1.5	mg/kg	6010B	08/02/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	08/01/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/01/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/01/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/01/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/01/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.3		% Rec.	8021/8015	08/01/13	5
a,a,a-Trifluorotoluene(PID)	98.9		% Rec.	8021/8015	08/01/13	5
TPH (GC/FID) High Fraction	460	20.	mg/kg	3546/DRO	08/04/13	5
Surrogate recovery(%)						
o-Terphenyl	53.7		% Rec.	3546/DRO	08/04/13	5
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Acenaphthene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Acenaphthylene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Benzo(a)anthracene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Benzo(a)pyrene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L648948-02 (PH) - 8.3@21.0c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-02

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Site ID :

Sample ID : EW01 6FT

Project # : 034312009

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Benzo(g,h,i)perylene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Benzo(k)fluoranthene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Chrysene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Dibenz(a,h)anthracene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Fluoranthene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Fluorene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Indeno(1,2,3-cd)pyrene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Naphthalene	BDL	0.40	mg/kg	8270C-SIM	08/05/13	20
Phenanthrene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
Pyrene	BDL	0.12	mg/kg	8270C-SIM	08/05/13	20
1-Methylnaphthalene	BDL	0.40	mg/kg	8270C-SIM	08/05/13	20
2-Methylnaphthalene	BDL	0.40	mg/kg	8270C-SIM	08/05/13	20
2-Chloronaphthalene	BDL	0.40	mg/kg	8270C-SIM	08/05/13	20
Surrogate Recovery						
Nitrobenzene-d5	126.		% Rec.	8270C-SIM	08/05/13	20
2-Fluorobiphenyl	99.6		% Rec.	8270C-SIM	08/05/13	20
p-Terphenyl-d14	118.		% Rec.	8270C-SIM	08/05/13	20

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L648948-02 (PH) - 8.3@21.0c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-03

Site ID :

Project # : 034312009

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Sample ID : NW01 6FT

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/31/13	1
Chromium,Trivalent	15.	0.50	mg/kg	Calc.	08/02/13	1
ORP	140		mV	2580 B-2011	07/31/13	1
pH	8.5		su	9045D	08/01/13	1
Sodium Adsorption Ratio	1.8			Calc.	07/31/13	1
Specific Conductance	220		umhos/cm	9050AMod	07/31/13	1
Mercury	BDL	0.020	mg/kg	7471	07/31/13	1
Arsenic	7.5	1.0	mg/kg	6010B	08/02/13	1
Barium	39.	0.25	mg/kg	6010B	08/02/13	1
Cadmium	BDL	0.25	mg/kg	6010B	08/02/13	1
Chromium	15.	0.50	mg/kg	6010B	08/02/13	1
Copper	12.	1.0	mg/kg	6010B	08/02/13	1
Lead	12.	0.25	mg/kg	6010B	08/02/13	1
Nickel	14.	1.0	mg/kg	6010B	08/02/13	1
Selenium	BDL	1.0	mg/kg	6010B	08/05/13	1
Silver	BDL	0.50	mg/kg	6010B	08/02/13	1
Zinc	57.	1.5	mg/kg	6010B	08/02/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	08/01/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/01/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/01/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/01/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/01/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.5		% Rec.	8021/8015	08/01/13	5
a,a,a-Trifluorotoluene(PID)	98.3		% Rec.	8021/8015	08/01/13	5
TPH (GC/FID) High Fraction	100	4.0	mg/kg	3546/DRO	08/02/13	1
Surrogate recovery(%)						
o-Terphenyl	76.4		% Rec.	3546/DRO	08/02/13	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L648948-03 (PH) - 8.5@21.0c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-03

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Site ID :

Sample ID : NW01 6FT

Project # : 034312009

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
Surrogate Recovery						
Nitrobenzene-d5	106.		% Rec.	8270C-SIM	08/05/13	1
2-Fluorobiphenyl	87.9		% Rec.	8270C-SIM	08/05/13	1
p-Terphenyl-d14	100.		% Rec.	8270C-SIM	08/05/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L648948-03 (PH) - 8.5@21.0c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-04

Site ID :

Project # : 034312009

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Sample ID : WW 6FT

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/31/13	1
Chromium,Trivalent	16.	0.50	mg/kg	Calc.	08/02/13	1
ORP	140		mV	2580 B-2011	07/31/13	1
pH	8.4		su	9045D	08/01/13	1
Sodium Adsorption Ratio	1.5			Calc.	07/31/13	1
Specific Conductance	140		umhos/cm	9050AMod	07/31/13	1
Mercury	BDL	0.020	mg/kg	7471	07/31/13	1
Arsenic	6.9	1.0	mg/kg	6010B	08/02/13	1
Barium	52.	0.25	mg/kg	6010B	08/02/13	1
Cadmium	BDL	0.25	mg/kg	6010B	08/02/13	1
Chromium	16.	0.50	mg/kg	6010B	08/02/13	1
Copper	12.	1.0	mg/kg	6010B	08/02/13	1
Lead	13.	0.25	mg/kg	6010B	08/02/13	1
Nickel	14.	1.0	mg/kg	6010B	08/02/13	1
Selenium	BDL	1.0	mg/kg	6010B	08/05/13	1
Silver	BDL	0.50	mg/kg	6010B	08/02/13	1
Zinc	56.	1.5	mg/kg	6010B	08/02/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	07/30/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/30/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/30/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/30/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/30/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	98.3		% Rec.	8021/8015	07/30/13	5
a,a,a-Trifluorotoluene(PID)	98.3		% Rec.	8021/8015	07/30/13	5
TPH (GC/FID) High Fraction	52.	4.0	mg/kg	3546/DRO	08/02/13	1
Surrogate recovery(%)						
o-Terphenyl	96.1		% Rec.	3546/DRO	08/02/13	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L648948-04 (PH) - 8.4@21.1c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-04

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Site ID :

Sample ID : WW 6FT

Project # : 034312009

Collected By : Steve Sivigliano
Collection Date : 07/19/13 11:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
Surrogate Recovery						
Nitrobenzene-d5	109.		% Rec.	8270C-SIM	08/05/13	1
2-Fluorobiphenyl	90.5		% Rec.	8270C-SIM	08/05/13	1
p-Terphenyl-d14	109.		% Rec.	8270C-SIM	08/05/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-05

Site ID :

Project # : 034312009

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Sample ID : SW 6FT

Collected By : Steve Sivigliano
Collection Date : 07/19/13 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/31/13	1
Chromium,Trivalent	17.	0.50	mg/kg	Calc.	08/02/13	1
ORP	150		mV	2580 B-2011	07/31/13	1
pH	8.2		su	9045D	08/01/13	1
Sodium Adsorption Ratio	0.93			Calc.	07/31/13	1
Specific Conductance	140		umhos/cm	9050AMod	07/31/13	1
Mercury	BDL	0.020	mg/kg	7471	07/31/13	1
Arsenic	8.4	1.0	mg/kg	6010B	08/02/13	1
Barium	66.	0.25	mg/kg	6010B	08/02/13	1
Cadmium	BDL	0.25	mg/kg	6010B	08/02/13	1
Chromium	17.	0.50	mg/kg	6010B	08/02/13	1
Copper	12.	1.0	mg/kg	6010B	08/02/13	1
Lead	13.	0.25	mg/kg	6010B	08/02/13	1
Nickel	13.	1.0	mg/kg	6010B	08/02/13	1
Selenium	BDL	1.0	mg/kg	6010B	08/05/13	1
Silver	BDL	0.50	mg/kg	6010B	08/02/13	1
Zinc	58.	1.5	mg/kg	6010B	08/02/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	07/30/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/30/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/30/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/30/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/30/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.4		% Rec.	8021/8015	07/30/13	5
a,a,a-Trifluorotoluene(PID)	98.7		% Rec.	8021/8015	07/30/13	5
TPH (GC/FID) High Fraction	10.	4.0	mg/kg	3546/DRO	08/02/13	1
Surrogate recovery(%)						
o-Terphenyl	106.		% Rec.	3546/DRO	08/02/13	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L648948-05 (PH) - 8.2@21.2c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-05

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Site ID :

Sample ID : SW 6FT

Project # : 034312009

Collected By : Steve Sivigliano
Collection Date : 07/19/13 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/05/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/05/13	1
Surrogate Recovery						
Nitrobenzene-d5	110.		% Rec.	8270C-SIM	08/05/13	1
2-Fluorobiphenyl	97.7		% Rec.	8270C-SIM	08/05/13	1
p-Terphenyl-d14	105.		% Rec.	8270C-SIM	08/05/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: Printed: 08/06/13 15:47
L648948-05 (PH) - 8.2@21.2c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-06

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Site ID :

Sample ID : BG01 6IN

Project # : 034312009

Collected By : Steve Sivigliano
Collection Date : 07/19/13 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	6.9		su	9045D	08/01/13	1
Sodium Adsorption Ratio	0.53			Calc.	07/31/13	1
Specific Conductance	130		umhos/cm	9050AMod	07/31/13	1
Arsenic	5.0	1.0	mg/kg	6010B	08/02/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: Printed: 08/06/13 15:47
L648948-06 (PH) - 6.9@20.9c

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

August 06, 2013

ESC Sample # : L648948-07

Date Received : July 25, 2013
Description : WT Durham 2 Pit

Site ID :

Sample ID : BG02 6IN

Project # : 034312009

Collected By : Steve Sivigliano
Collection Date : 07/19/13 13:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	6.9		su	9045D	08/01/13	1
Sodium Adsorption Ratio	0.41			Calc.	07/31/13	1
Specific Conductance	130		umhos/cm	9050AMod	07/31/13	1
Arsenic	4.6	1.0	mg/kg	6010B	08/02/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: Printed: 08/06/13 15:47
L648948-07 (PH) - 6.9@21.0c

Summary of Remarks For Samples Printed
08/06/13 at 15:47:31

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L648948-01 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

Sample: L648948-02 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

Sample: L648948-03 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

Sample: L648948-04 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

Sample: L648948-05 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

Sample: L648948-06 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

Sample: L648948-07 Account: LTENVRCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date:

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Rob Fishburn
820 Megan Ave, Unit B

Rifle, CO 81650

Quality Assurance Report
Level II

L648948

August 06, 2013

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Benzene	< .0005	mg/kg			WG674494	07/30/13 13:45
Ethylbenzene	< .0005	mg/kg			WG674494	07/30/13 13:45
Toluene	< .005	mg/kg			WG674494	07/30/13 13:45
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG674494	07/30/13 13:45
Total Xylene	< .0015	mg/kg			WG674494	07/30/13 13:45
a,a,a-Trifluorotoluene(FID)		% Rec.	100.0	59-128	WG674494	07/30/13 13:45
a,a,a-Trifluorotoluene(PID)		% Rec.	99.44	54-144	WG674494	07/30/13 13:45
Mercury	< .02	mg/kg			WG674479	07/31/13 09:37
Specific Conductance	1.10	umhos/cm			WG674570	07/31/13 14:15
Benzene	< .0005	mg/kg			WG674720	08/01/13 04:14
Ethylbenzene	< .0005	mg/kg			WG674720	08/01/13 04:14
Toluene	< .005	mg/kg			WG674720	08/01/13 04:14
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG674720	08/01/13 04:14
Total Xylene	< .0015	mg/kg			WG674720	08/01/13 04:14
a,a,a-Trifluorotoluene(FID)		% Rec.	100.4	59-128	WG674720	08/01/13 04:14
a,a,a-Trifluorotoluene(PID)		% Rec.	99.09	54-144	WG674720	08/01/13 04:14
Chromium,Hexavalent	< 2	mg/kg			WG674533	07/31/13 15:48
Arsenic	< 1	mg/kg			WG674934	08/02/13 15:52
Barium	< .25	mg/kg			WG674934	08/02/13 15:52
Cadmium	< .25	mg/kg			WG674934	08/02/13 15:52
Chromium	< .5	mg/kg			WG674934	08/02/13 15:52
Copper	< 1	mg/kg			WG674934	08/02/13 15:52
Lead	< .25	mg/kg			WG674934	08/02/13 15:52
Nickel	< 1	mg/kg			WG674934	08/02/13 15:52
Silver	< .5	mg/kg			WG674934	08/02/13 15:52
Zinc	< 1.5	mg/kg			WG674934	08/02/13 15:52
TPH (GC/FID) High Fraction	< 4	mg/kg			WG674376	08/02/13 09:54
o-Terphenyl		% Rec.	81.80	50-150	WG674376	08/02/13 09:54
Selenium	< 1	mg/kg			WG675186	08/05/13 06:09

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Mercury	mg/kg	0	0.00562	20.0	20	L648874-03	WG674479
Specific Conductance	umhos/cm	3300	3400	2.99	20	L648846-01	WG674570
Specific Conductance	umhos/cm	140.	130.	5.97	20	L648948-07	WG674570
ORP	mV	190.	190.	0.525	20	L648405-01	WG674566
ORP	mV	150.	150.	0.669	20	L648948-05	WG674566
Chromium,Hexavalent	mg/kg	0	0	0	20	L648646-06	WG674533

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Rob Fishburn
820 Megan Ave, Unit B

Rifle, CO 81650

Quality Assurance Report
Level II

L648948

August 06, 2013

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
			Duplicate				
pH	su	7.70	7.70	0.389	1	L648824-01	WG674834
pH	su	6.80	6.90	1.61*	1	L648948-07	WG674834
Arsenic	mg/kg	4.20	3.90	7.41	20	L648922-01	WG674934
Barium	mg/kg	49.0	56.0	13.3	20	L648922-01	WG674934
Cadmium	mg/kg	0.370	0.400	7.79	20	L648922-01	WG674934
Chromium	mg/kg	17.0	14.0	19.4	20	L648922-01	WG674934
Copper	mg/kg	16.0	0	NA	20	L648922-01	WG674934
Lead	mg/kg	64.0	55.0	15.1	20	L648922-01	WG674934
Nickel	mg/kg	3.70	0	NA	20	L648922-01	WG674934
Silver	mg/kg	0	0	0	20	L648922-01	WG674934
Zinc	mg/kg	54.0	0	NA	20	L648922-01	WG674934
Selenium	mg/kg	0	0	0	20	L649798-05	WG675186

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
		Laboratory Control Sample				
Benzene	mg/kg	.05	0.0450	90.0	70-130	WG674494
Ethylbenzene	mg/kg	.05	0.0452	90.3	70-130	WG674494
Toluene	mg/kg	.05	0.0448	89.5	70-130	WG674494
Total Xylene	mg/kg	.15	0.139	92.6	70-130	WG674494
a,a,a-Trifluorotoluene(PID)				97.66	54-144	WG674494
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.00	109.	63.6-136	WG674494
a,a,a-Trifluorotoluene(FID)				101.5	59-128	WG674494
Mercury	mg/kg	12.4	14.3	115.	71.6-128	WG674479
Specific Conductance	umhos/cm	1140	1200	105.	85-115	WG674570
ORP	mV	228	220.	96.5	95.6-104.	WG674566
Benzene	mg/kg	.05	0.0408	81.6	70-130	WG674720
Ethylbenzene	mg/kg	.05	0.0414	82.8	70-130	WG674720
Toluene	mg/kg	.05	0.0405	81.1	70-130	WG674720
Total Xylene	mg/kg	.15	0.128	85.1	70-130	WG674720
a,a,a-Trifluorotoluene(PID)				97.96	54-144	WG674720
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.28	96.1	63.6-136	WG674720
a,a,a-Trifluorotoluene(FID)				100.7	59-128	WG674720
Chromium,Hexavalent	mg/kg	146	152.	104.	80-120	WG674533
pH	su	6.96	6.90	99.1	98.3-101.7	WG674834
Arsenic	mg/kg	237	250.	105.	83.1-117	WG674934
Barium	mg/kg	252	260.	103.	84.1-116	WG674934
Cadmium	mg/kg	191	187.	97.9	83.2-117	WG674934
Chromium	mg/kg	128	130.	102.	81.3-118	WG674934
Copper	mg/kg	123	122.	99.2	83.7-116	WG674934
Lead	mg/kg	103	107.	104.	83.1-117	WG674934

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Rob Fishburn
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Rifle, CO 81650

Quality Assurance Report
Level II

L648948

August 06, 2013

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Nickel	mg/kg	118	111.	94.1	82-118	WG674934
Silver	mg/kg	47.3	47.7	101.	66.2-134	WG674934
Zinc	mg/kg	183	184.	101.	82-118	WG674934
TPH (GC/FID) High Fraction	mg/kg	60	41.8	69.6	50-150	WG674376
o-Terphenyl				79.80	50-150	WG674376
Selenium	mg/kg	110	110.	100.	78.7-122	WG675186

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Benzene	mg/kg	0.0434	0.0450	87.0	70-130	3.61	20	WG674494
Ethylbenzene	mg/kg	0.0440	0.0452	88.0	70-130	2.69	20	WG674494
Toluene	mg/kg	0.0436	0.0448	87.0	70-130	2.67	20	WG674494
Total Xylene	mg/kg	0.136	0.139	90.0	70-130	2.40	20	WG674494
a,a,a-Trifluorotoluene(PID)				98.94	54-144			WG674494
TPH (GC/FID) Low Fraction	mg/kg	6.32	6.00	115.	63.6-136	5.24	20	WG674494
a,a,a-Trifluorotoluene(FID)				102.2	59-128			WG674494
Specific Conductance	umhos/	1200	1200	105.	85-115	0	20	WG674570
ORP	mV	220.	220.	96.0	95.6-104.	0	20	WG674566
Benzene	mg/kg	0.0440	0.0408	88.0	70-130	7.53	20	WG674720
Ethylbenzene	mg/kg	0.0443	0.0414	89.0	70-130	6.80	20	WG674720
Toluene	mg/kg	0.0439	0.0405	88.0	70-130	7.96	20	WG674720
Total Xylene	mg/kg	0.137	0.128	91.0	70-130	6.76	20	WG674720
a,a,a-Trifluorotoluene(PID)				99.11	54-144			WG674720
TPH (GC/FID) Low Fraction	mg/kg	5.51	5.28	100.	63.6-136	4.22	20	WG674720
a,a,a-Trifluorotoluene(FID)				101.2	59-128			WG674720
Chromium,Hexavalent	mg/kg	154.	152.	105.	80-120	1.31	20	WG674533
pH	su	6.90	6.90	99.0	98.3-101.7	0	20	WG674834
TPH (GC/FID) High Fraction	mg/kg	47.6	41.8	79.0	50-150	13.0	20	WG674376
o-Terphenyl				89.70	50-150			WG674376

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Benzene	mg/kg	0.203	0	.05	81.3	49.7-127	L648492-01	WG674494
Ethylbenzene	mg/kg	0.202	0	.05	80.9	40.8-141	L648492-01	WG674494
Toluene	mg/kg	0.209	0	.05	83.7	49.8-132	L648492-01	WG674494
Total Xylene	mg/kg	0.620	0	.15	82.7	41.2-140	L648492-01	WG674494
a,a,a-Trifluorotoluene(PID)					98.20	54-144		WG674494
TPH (GC/FID) Low Fraction	mg/kg	23.6	0.110	5.5	85.6	29-139	L648492-01	WG674494
a,a,a-Trifluorotoluene(FID)					99.56	59-128		WG674494

* Performance of this Analyte is outside of established criteria.
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820 Megan Ave, Unit B

Rifle, CO 81650

Quality Assurance Report
Level II

L648948

August 06, 2013

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Mercury	mg/kg	0.254	0.00562	.25	99.3	80-120	L648874-03	WG674479
Benzene	mg/kg	0.213	0	.05	85.2	49.7-127	L649237-12	WG674720
Ethylbenzene	mg/kg	0.209	0	.05	83.5	40.8-141	L649237-12	WG674720
Toluene	mg/kg	0.212	0	.05	84.9	49.8-132	L649237-12	WG674720
Total Xylene	mg/kg	0.639	0	.15	85.2	41.2-140	L649237-12	WG674720
a,a,a-Trifluorotoluene(PID)					98.44	54-144		WG674720
TPH (GC/FID) Low Fraction	mg/kg	24.4	0.106	5.5	88.5	29-139	L649237-12	WG674720
a,a,a-Trifluorotoluene(FID)					100.0	59-128		WG674720
Chromium,Hexavalent	mg/kg	18.8	0	20	94.0	75-125	L648948-01	WG674533
1-Methylnaphthalene	mg/kg	0.0770	0	.08	96.2	58.9-123	L648516-01	WG674804
2-Chloronaphthalene	mg/kg	0.0738	0	.08	92.3	61.6-120	L648516-01	WG674804
2-Methylnaphthalene	mg/kg	0.0785	0	.08	98.1	50.7-129	L648516-01	WG674804
Acenaphthene	mg/kg	0.0753	0	.08	94.1	51.6-124	L648516-01	WG674804
Acenaphthylene	mg/kg	0.0769	0	.08	96.2	58.3-126	L648516-01	WG674804
Anthracene	mg/kg	0.0826	0	.08	103.	47.9-137	L648516-01	WG674804
Benzo(a)anthracene	mg/kg	0.0858	0	.08	107.	34.2-138	L648516-01	WG674804
Benzo(a)pyrene	mg/kg	0.0797	0	.08	99.6	34.6-133	L648516-01	WG674804
Benzo(b)fluoranthene	mg/kg	0.0754	0	.08	94.2	19.8-142	L648516-01	WG674804
Benzo(g,h,i)perylene	mg/kg	0.0771	0	.08	96.4	20-149	L648516-01	WG674804
Benzo(k)fluoranthene	mg/kg	0.0757	0	.08	94.7	32.1-137	L648516-01	WG674804
Chrysene	mg/kg	0.0789	0	.08	98.6	36.6-137	L648516-01	WG674804
Dibenz(a,h)anthracene	mg/kg	0.0764	0	.08	95.5	27.1-145	L648516-01	WG674804
Fluoranthene	mg/kg	0.0817	0	.08	102.	39.8-141	L648516-01	WG674804
Fluorene	mg/kg	0.0759	0	.08	94.9	42.5-130	L648516-01	WG674804
Indeno(1,2,3-cd)pyrene	mg/kg	0.0782	0	.08	97.7	19-151	L648516-01	WG674804
Naphthalene	mg/kg	0.0726	0.00171	.08	88.6	40.6-135	L648516-01	WG674804
Phenanthrene	mg/kg	0.0738	0	.08	92.2	39.7-129	L648516-01	WG674804
Pyrene	mg/kg	0.0770	0	.08	96.3	31.5-141	L648516-01	WG674804
2-Fluorobiphenyl					93.20	51.1-131		WG674804
Nitrobenzene-d5					90.00	40.9-147		WG674804
p-Terphenyl-d14					96.80	45.3-138		WG674804
Arsenic	mg/kg	54.0	3.90	50	100.	75-125	L648922-01	WG674934
Barium	mg/kg	98.9	56.0	50	85.8	75-125	L648922-01	WG674934
Cadmium	mg/kg	49.4	0.400	50	98.0	75-125	L648922-01	WG674934
Chromium	mg/kg	64.2	14.0	50	100.	75-125	L648922-01	WG674934
Copper	mg/kg	67.1	0	50	134.*	75-125	L648922-01	WG674934
Lead	mg/kg	104.	55.0	50	98.0	75-125	L648922-01	WG674934
Nickel	mg/kg	48.3	0	50	96.6	75-125	L648922-01	WG674934
Silver	mg/kg	49.7	0	50	99.4	75-125	L648922-01	WG674934
Zinc	mg/kg	103.	0	50	206.*	75-125	L648922-01	WG674934
TPH (GC/FID) High Fraction	mg/kg	47.3	10.5	60	61.4	50-150	L648948-05	WG674376
o-Terphenyl					95.60	50-150		WG674376
Selenium	mg/kg	41.6	0	50	83.2	75-125	L649798-05	WG675186

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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LT Environmental- Rifle, CO
Rob Fishburn
820 Megan Ave, Unit B

Rifle, CO 81650

Quality Assurance Report
Level II

L648948

August 06, 2013

Analyte	Units	Matrix Spike MSD	Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Benzene	mg/kg	0.220	0.203	87.9	49.7-127	7.77	23.5	L648492-01	WG674494
Ethylbenzene	mg/kg	0.212	0.202	84.7	40.8-141	4.59	23.8	L648492-01	WG674494
Toluene	mg/kg	0.216	0.209	86.2	49.8-132	2.99	23.5	L648492-01	WG674494
Total Xylene	mg/kg	0.646	0.620	86.1	41.2-140	4.02	23.7	L648492-01	WG674494
a,a,a-Trifluorotoluene(PID)				98.71	54-144				WG674494
TPH (GC/FID) Low Fraction	mg/kg	23.7	23.6	85.8	29-139	0.310	22.4	L648492-01	WG674494
a,a,a-Trifluorotoluene(FID)				99.33	59-128				WG674494
Mercury	mg/kg	0.255	0.254	99.7	80-120	0.334	20	L648874-03	WG674479
Benzene	mg/kg	0.217	0.213	86.7	49.7-127	1.67	23.5	L649237-12	WG674720
Ethylbenzene	mg/kg	0.213	0.209	85.2	40.8-141	1.92	23.8	L649237-12	WG674720
Toluene	mg/kg	0.216	0.212	86.4	49.8-132	1.72	23.5	L649237-12	WG674720
Total Xylene	mg/kg	0.648	0.639	86.4	41.2-140	1.41	23.7	L649237-12	WG674720
a,a,a-Trifluorotoluene(PID)				98.62	54-144				WG674720
TPH (GC/FID) Low Fraction	mg/kg	24.1	24.4	87.2	29-139	1.48	22.4	L649237-12	WG674720
a,a,a-Trifluorotoluene(FID)				100.0	59-128				WG674720
Chromium,Hexavalent	mg/kg	18.8	18.8	94.0	75-125	0	20	L648948-01	WG674533
1-Methylnaphthalene	mg/kg	0.0768	0.0770	95.9	58.9-123	0.260	20	L648516-01	WG674804
2-Chloronaphthalene	mg/kg	0.0735	0.0738	91.8	61.6-120	0.490	20	L648516-01	WG674804
2-Methylnaphthalene	mg/kg	0.0794	0.0785	99.3	50.7-129	1.16	20	L648516-01	WG674804
Acenaphthene	mg/kg	0.0751	0.0753	93.8	51.6-124	0.280	20	L648516-01	WG674804
Acenaphthylene	mg/kg	0.0763	0.0769	95.4	58.3-126	0.830	20	L648516-01	WG674804
Anthracene	mg/kg	0.0845	0.0826	106.	47.9-137	2.30	20	L648516-01	WG674804
Benzo(a)anthracene	mg/kg	0.0858	0.0858	107.	34.2-138	0.0600	22.8	L648516-01	WG674804
Benzo(a)pyrene	mg/kg	0.0801	0.0797	100.	34.6-133	0.510	26.3	L648516-01	WG674804
Benzo(b)fluoranthene	mg/kg	0.0755	0.0754	94.4	19.8-142	0.190	30.3	L648516-01	WG674804
Benzo(g,h,i)perylene	mg/kg	0.0761	0.0771	95.1	20-149	1.29	27.1	L648516-01	WG674804
Benzo(k)fluoranthene	mg/kg	0.0748	0.0757	93.5	32.1-137	1.23	24.6	L648516-01	WG674804
Chrysene	mg/kg	0.0788	0.0789	98.5	36.6-137	0.120	22.7	L648516-01	WG674804
Dibenz(a,h)anthracene	mg/kg	0.0759	0.0764	94.9	27.1-145	0.640	21.9	L648516-01	WG674804
Fluoranthene	mg/kg	0.0825	0.0817	103.	39.8-141	0.890	22.2	L648516-01	WG674804
Fluorene	mg/kg	0.0753	0.0759	94.2	42.5-130	0.740	20	L648516-01	WG674804
Indeno(1,2,3-cd)pyrene	mg/kg	0.0780	0.0782	97.5	19-151	0.260	25	L648516-01	WG674804
Naphthalene	mg/kg	0.0729	0.0726	89.0	40.6-135	0.450	20	L648516-01	WG674804
Phenanthrene	mg/kg	0.0740	0.0738	92.4	39.7-129	0.250	20	L648516-01	WG674804
Pyrene	mg/kg	0.0768	0.0770	96.0	31.5-141	0.260	23.5	L648516-01	WG674804
2-Fluorobiphenyl				93.10	51.1-131				WG674804
Nitrobenzene-d5				81.60	40.9-147				WG674804
p-Terphenyl-d14				94.60	45.3-138				WG674804
Arsenic	mg/kg	51.7	54.0	95.6	75-125	4.35	20	L648922-01	WG674934
Barium	mg/kg	116.	98.9	120.	75-125	15.9	20	L648922-01	WG674934
Cadmium	mg/kg	46.3	49.4	91.8	75-125	6.48	20	L648922-01	WG674934
Chromium	mg/kg	62.3	64.2	96.6	75-125	3.00	20	L648922-01	WG674934
Copper	mg/kg	64.9	67.1	130.*	75-125	3.33	20	L648922-01	WG674934
Lead	mg/kg	120.	104.	130.*	75-125	14.3	20	L648922-01	WG674934
Nickel	mg/kg	45.9	48.3	91.8	75-125	5.10	20	L648922-01	WG674934
Silver	mg/kg	47.3	49.7	94.6	75-125	4.95	20	L648922-01	WG674934
Zinc	mg/kg	105.	103.	210.*	75-125	1.92	20	L648922-01	WG674934
TPH (GC/FID) High Fraction	mg/kg	47.5	47.3	61.7	50-150	0.470	20	L648948-05	WG674376

* Performance of this Analyte is outside of established criteria.
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LT Environmental- Rifle, CO
Rob Fishburn
820 Megan Ave, Unit B

Rifle, CO 81650

Quality Assurance Report
Level II

L648948

August 06, 2013

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Matrix Spike Duplicate									
o-Terphenyl				92.70	50-150				
Selenium	mg/kg	44.6	41.6	89.2	75-125	6.96	20	L649798-05	WG675186
Serial Dilution									

Batch number /Run number / Sample number cross reference

WG674494: R2761463: L648948-01 04 05
WG674479: R2761921: L648948-01 02 03 04 05
WG674570: R2762420: L648948-01 02 03 04 05 06 07
WG674566: R2762560: L648948-01 02 03 04 05
WG674328: R2762641: L648948-01 02 03 04 05 06 07
WG674720: R2763342: L648948-02 03 04 05
WG674533: R2763400: L648948-01 02 03 04 05
WG674834: R2764322: L648948-01 02 03 04 05 06 07
WG674804: R2766392 R2768821: L648948-01 02 03 04 05
WG674934: R2768341: L648948-01 02 03 04 05 06 07
WG674376: R2768361 R2768481: L648948-02 01 03 04 05
WG675186: R2768882: L648948-01 02 03 04 05

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report
Level II

L648948

August 06, 2013

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Summit Scientific

741 Corporate Circle – Suite J ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

October 10, 2013

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

RE: SHE - Waddle Creek Pit Assessment

Enclosed are the results of analyses for samples received by Summit Scientific on 10/07/13 08:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Joseph J Egry IV
Laboratory Director

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: SHE - Waddle Creek Pit Assessment Project Number: 0343-12009 Project Manager: Rob Fishburn	**Reported:** 10/10/13 14:10

ANALYTICAL REPORT FOR SAMPLES

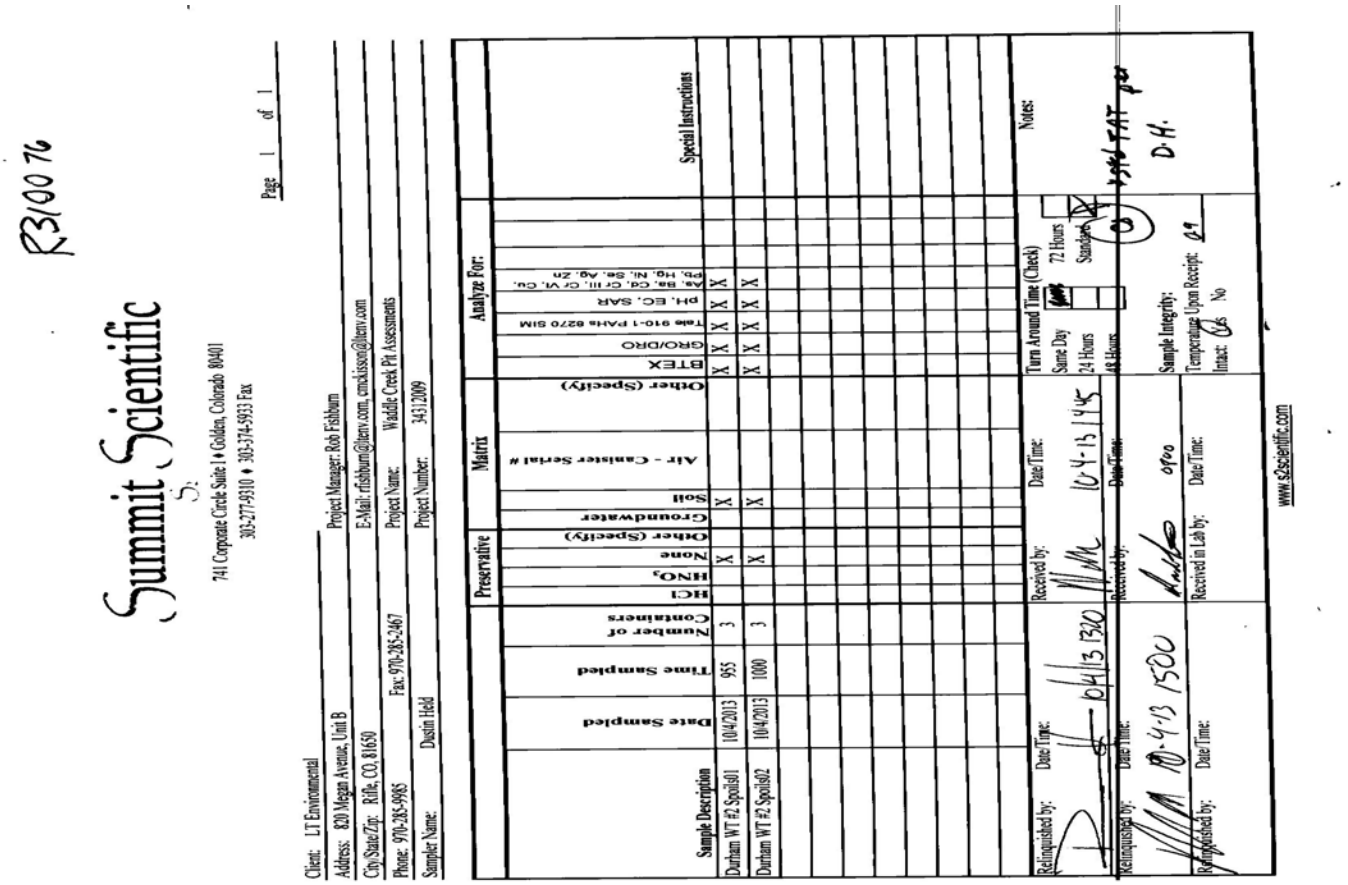
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Durham WT #2 Spoils01	R310076-01	Soil	10/04/13 09:55	10/07/13 08:00
Durham WT #2 Spoils02	R310076-02	Soil	10/04/13 10:00	10/07/13 08:00

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.

Joseph J Egry IV, Laboratory Director

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: SHE - Waddle Creek Pit Assessment Project Number: 0343-12009 Project Manager: Rob Fishburn	**Reported:** 10/10/13 14:10



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303-277-9310 • 303-374-5933 Fax

Page 1 of 1

R3/0076

Client: LT Environmental
Address: 820 Megan Avenue, Unit B
City/State/Zip: Rifle, CO, 81650
Phone: 970-285-9985 Fax: 970-285-2467
Sampler Name: Dustin Held

Project Manager: Rob Fishburn
E-Mail: rfishburn@ltenv.com, cmckisson@ltenv.com
Project Name: Waddle Creek Pit Assessments
Project Number: 3431/2009

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative: HCl	HNO3	None	Other (Specify)	Matrix: Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Analyze For: BTEX	GRO/DRO	Table 910-1 PAHs 8270 SIM	pH, EC, SAR	Pb, Ba, Cd, Cr III, Cr VI, Cu, Pb, Hg, Ni, Se, Ag, Zn	Special Instructions
Durham WT #2, Spoils01	10/4/2013	955	3			X			X			X	X	X	X	X	
Durham WT #2, Spoils02	10/4/2013	1000	3			X			X			X	X	X	X	X	

Relinquished by: Date/Time: 10/4/13 1340 Received by: Date/Time: 10-4-13 1345

Relinquished by: Date/Time: Received by: Date/Time:

Relinquished by: Date/Time: 10-4-13 1500 Received by: Date/Time:

Relinquished by: Date/Time: Received in Lab by: Date/Time:

Turn Around Time (Check): Same Day, 24 Hours, 48 Hours, 72 Hours, Standard

Sample Integrity: Temperature Upon Receipt: 2.1 Intact: Yes No

Notes: 1346 FAX pw D.H.

www.sciscientific.com

Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

Durham WT #2 Spoils01
R310076-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3100711	10/07/13	10/08/13 23:19	8015M	

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	*90.3 %*	*30-150*			"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3100710	10/07/13	10/08/13 04:28	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*23-173*			"	"	"	"	
Surrogate: Toluene-d8	*98.9 %*	*20-170*			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*106 %*	*21-167*			"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Joseph J Egry IV, Laboratory Director

Durham WT #2 Spoils01

R310076-01 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Acenaphthene	ND	5.00	ug/kg	1	3100803	10/08/13	10/08/13 19:01	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	5.00	"	"	"	"	"	"
Fluoranthene	ND	5.00	"	"	"	"	"	"
Fluorene	ND	5.00	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"
Naphthalene	ND	5.00	"	"	"	"	"	"
Pyrene	ND	5.00	"	"	"	"	"	"

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	*90.7 %*	*50-150*			"	"	"	"	
Surrogate: Fluoranthene-d10	*79.3 %*	*50-150*			"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**5.09**	0.0818	mg/kg dry	1	3100707	10/07/13	10/07/13 22:57	EPA 6020A	
Barium	**73.9**	0.0818	"	"	"	"	"	"	
Cadmium	**0.142**	0.0818	"	"	"	"	"	"	
Chromium	**13.0**	0.409	"	"	"	"	"	"	
Copper	**10.6**	0.409	"	"	"	"	"	"	
Lead	**14.1**	0.0818	"	"	"	"	"	"	
Nickel	**15.8**	0.0818	"	"	"	"	10/08/13 17:17	"	
Selenium	**0.528**	0.0409	"	"	"	"	10/07/13 22:57	"	

Summit Scientific

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Joseph J Egry IV, Laboratory Director

Durham WT #2 Spoils01

R310076-01 (Soil)

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Total Metals by EPA Method 6020 - Dry Weight Basis

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Silver	ND	0.0818	mg/kg dry	1	3100707	10/07/13	10/07/13 22:57	EPA 6020A	
Zinc	**20.6**	8.18	"	"	"	"	10/08/13 17:17	"	

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	**0.0433**	0.0425	mg/kg dry	1	3100705	10/07/13	10/08/13 10:56	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.13	mg/kg dry	1	3100701	10/07/13	10/08/13 11:58	EPA 7196	

Calculated Analytes

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	**11.9**	1.00	mg/kg	1	3100909	10/09/13	10/09/13 00:00	Calculation	

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

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**235**	8.03	mg/kg dry	1	3100706	10/07/13	10/08/13 02:08	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	**77.6**	4.01	"	"	"	"	"	"	
Sodium	**44.9**	4.01	"	"	"	"	"	"	

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Joseph J Egry IV, Laboratory Director

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: SHE - Waddle Creek Pit Assessment Project Number: 0343-12009 Project Manager: Rob Fishburn	**Reported:** 10/10/13 14:10

Durham WT #2 Spoils01

R310076-01 (Soil)

Summit Scientific

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

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.650**		units	1	3100802	10/08/13	10/08/13 08:49	EPA 6020/Mod. USDA60 6(2, 3A)	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.366**	0.0100	mmhos/cm	1	3100703	10/07/13	10/07/13 13:53	SM 2510B	

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.57**	0.100	pH Units	"	3100702	10/07/13	10/07/13 14:13	EPA 9045	

Date Sampled: **10/04/13 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**88.8**		%	"	3100704	10/07/13	10/07/13 14:46	% calculation	

LT Environmental, Inc. 4600 West 60th Avenue Arvada CO, 80003	Project: SHE - Waddle Creek Pit Assessment Project Number: 0343-12009 Project Manager: Rob Fishburn	**Reported:** 10/10/13 14:10

Durham WT #2 Spoils02

R310076-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3100711	10/07/13	10/08/13 23:51	8015M	

Date Sampled: **10/04/13 10:00**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3100710	10/07/13	10/08/13 04:52	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*23-173*			"	"	"	"	
Surrogate: Toluene-d8	*98.6 %*	*20-170*			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*102 %*	*21-167*			"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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Joseph J Egry IV, Laboratory Director

Durham WT #2 Spoils02

R310076-02 (Soil)

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Semivolatile Organic Compounds by EPA Method 8270D SIM

Acenaphthene	ND	5.00	ug/kg	1	3100803	10/08/13	10/08/13 19:33	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	5.00	"	"	"	"	"	"
Fluoranthene	ND	5.00	"	"	"	"	"	"
Fluorene	ND	5.00	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"
Naphthalene	ND	5.00	"	"	"	"	"	"
Pyrene	ND	5.00	"	"	"	"	"	"

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	*94.5 %*	*50-150*			"	"	"	"	
Surrogate: Fluoranthene-d10	*69.1 %*	*50-150*			"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**3.70**	0.0901	mg/kg dry	1	3100707	10/07/13	10/07/13 23:04	EPA 6020A	
Barium	**104**	0.0901	"	"	"	"	"	"	
Cadmium	**0.181**	0.0901	"	"	"	"	"	"	
Chromium	**13.9**	0.450	"	"	"	"	"	"	
Copper	**9.69**	0.450	"	"	"	"	"	"	
Lead	**17.3**	0.0901	"	"	"	"	"	"	
Nickel	**13.6**	0.0901	"	"	"	"	10/08/13 17:24	"	
Selenium	**0.132**	0.0450	"	"	"	"	10/07/13 23:04	"	

Summit Scientific

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Durham WT #2 Spoils02

R310076-02 (Soil)

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Total Metals by EPA Method 6020 - Dry Weight Basis

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Silver	ND	0.0901	mg/kg dry	1	3100707	10/07/13	10/07/13 23:04	EPA 6020A	
Zinc	**19.4**	9.01	"	"	"	"	10/08/13 17:24	"	

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0471	mg/kg dry	1	3100705	10/07/13	10/08/13 10:56	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.23	mg/kg dry	1	3100701	10/07/13	10/08/13 11:58	EPA 7196	

Calculated Analytes

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	**12.7**	1.00	mg/kg	1	3100909	10/09/13	10/09/13 00:00	Calculation	

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

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**210**	9.90	mg/kg dry	1	3100706	10/07/13	10/08/13 02:12	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	**55.8**	4.95	"	"	"	"	"	"	
Sodium	**11.6**	4.95	"	"	"	"	"	"	

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.

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Durham WT #2 Spoils02

R310076-02 (Soil)

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

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.180**		units	1	3100802	10/08/13	10/08/13 08:49	EPA 6020/Mod. USDA60 6(2, 3A)	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.247**	0.0100	mmhos/cm	1	3100703	10/07/13	10/07/13 13:53	SM 2510B	

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.14**	0.100	pH Units	"	3100702	10/07/13	10/07/13 14:13	EPA 9045	

Date Sampled: **10/04/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**81.3**		%	"	3100704	10/07/13	10/07/13 14:46	% calculation	

Joseph J Egry IV, Laboratory Director

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100711 - EPA 3550A										
Blank (3100711-BLK1)				Prepared & Analyzed: 10/07/13						
C10-C28 (DRO)	ND	50	mg/kg							
LCS (3100711-BS1)				Prepared: 10/07/13 Analyzed: 10/08/13						
C10-C28 (DRO)	467	50	mg/kg	501		93.2	73-134			
LCS Dup (3100711-BSD1)				Prepared: 10/07/13 Analyzed: 10/08/13						
C10-C28 (DRO)	419	50	mg/kg	501		83.7	73-134	10.7	11	
Matrix Spike (3100711-MS1)		**Source: R310057-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
C10-C28 (DRO)	444	50	mg/kg	501	ND	88.6	50-148			
Matrix Spike Dup (3100711-MSD1)		**Source: R310057-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
C10-C28 (DRO)	416	50	mg/kg	501	ND	83.1	50-148	6.47	13	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100710 - EPA 5030 Soil MS										
Blank (3100710-BLK1)				Prepared & Analyzed: 10/07/13						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0437*		"	*0.0397*		*110*	*23-173*			
Surrogate: Toluene-d8	*0.0392*		"	*0.0400*		*98.0*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0414*		"	*0.0400*		*104*	*21-167*			
LCS (3100710-BS1)				Prepared & Analyzed: 10/07/13						
Benzene	0.0878	0.0020	mg/kg	0.100		87.8	58-130			
Toluene	0.101	0.0050	"	0.100		101	61-134			
Ethylbenzene	0.117	0.0050	"	0.100		117	74-139			
m,p-Xylene	0.222	0.010	"	0.200		111	73-137			
o-Xylene	0.117	0.0050	"	0.100		117	73-141			
Surrogate: 1,2-Dichloroethane-d4	*0.0436*		"	*0.0397*		*110*	*23-173*			
Surrogate: Toluene-d8	*0.0390*		"	*0.0400*		*97.6*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0404*		"	*0.0400*		*101*	*21-167*			
LCS Dup (3100710-BSD1)				Prepared & Analyzed: 10/07/13						
Benzene	0.0855	0.0020	mg/kg	0.100		85.5	58-130	2.63	13	
Toluene	0.0994	0.0050	"	0.100		99.4	61-134	1.29	16	
Ethylbenzene	0.116	0.0050	"	0.100		116	74-139	0.696	12	
m,p-Xylene	0.220	0.010	"	0.200		110	73-137	1.14	14	
o-Xylene	0.115	0.0050	"	0.100		115	73-141	2.25	12	
Surrogate: 1,2-Dichloroethane-d4	*0.0428*		"	*0.0397*		*108*	*23-173*			
Surrogate: Toluene-d8	*0.0393*		"	*0.0400*		*98.3*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0401*		"	*0.0400*		*100*	*21-167*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100710 - EPA 5030 Soil MS										
Matrix Spike (3100710-MS1)		**Source: R310057-01**		Prepared: 10/07/13		Analyzed: 10/08/13				
Benzene	0.0849	0.0020	mg/kg	0.100	ND	84.9	30-131			
Toluene	0.100	0.0050	"	0.100	ND	100	30-134			
Ethylbenzene	0.116	0.0050	"	0.100	ND	116	22-153			
m,p-Xylene	0.220	0.010	"	0.200	ND	110	10-159			
o-Xylene	0.115	0.0050	"	0.100	ND	115	31-151			
Surrogate: 1,2-Dichloroethane-d4	*0.0438*		"	*0.0397*		*110*	*23-173*			
Surrogate: Toluene-d8	*0.0393*		"	*0.0400*		*98.3*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0407*		"	*0.0400*		*102*	*21-167*			
Matrix Spike Dup (3100710-MSD1)		**Source: R310057-01**		Prepared: 10/07/13		Analyzed: 10/08/13				
Benzene	0.0858	0.0020	mg/kg	0.100	ND	85.8	30-131	1.05	34	
Toluene	0.101	0.0050	"	0.100	ND	101	30-134	1.40	30	
Ethylbenzene	0.115	0.0050	"	0.100	ND	115	22-153	1.01	24	
m,p-Xylene	0.220	0.010	"	0.200	ND	110	10-159	0.273	68	
o-Xylene	0.115	0.0050	"	0.100	ND	115	31-151	0.209	38	
Surrogate: 1,2-Dichloroethane-d4	*0.0453*		"	*0.0397*		*114*	*23-173*			
Surrogate: Toluene-d8	*0.0394*		"	*0.0400*		*98.6*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0404*		"	*0.0400*		*101*	*21-167*			

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100803 - EPA 5030 Soil MS										
Blank (3100803-BLK1)				Prepared & Analyzed: 10/08/13						
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	5.00	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Indeno (1,2,3-cd) pyrene	ND	5.00	"							
Naphthalene	ND	5.00	"							
Pyrene	ND	5.00	"							
Surrogate: 2-Methylnaphthalene-d10	*38.1*		*"*	*34.8*		*110*	*50-150*			
Surrogate: Fluoranthene-d10	*35.2*		*"*	*34.5*		*102*	*50-150*			
LCS (3100803-BS1)				Prepared & Analyzed: 10/08/13						
Acenaphthene	34.0	5.00	ug/kg	33.3		102	48-131			
Anthracene	31.4	5.00	"	33.3		94.1	48-135			
Benzo (a) anthracene	33.9	5.00	"	33.3		102	37-142			
Benzo (b) fluoranthene	32.3	5.00	"	33.3		97.0	35-139			
Benzo (k) fluoranthene	31.1	5.00	"	33.3		93.3	30-139			
Benzo (a) pyrene	32.7	5.00	"	33.3		98.1	41-132			
Chrysene	30.2	5.00	"	33.3		90.7	30-136			
Dibenz (a,h) anthracene	33.3	5.00	"	33.3		100	24-127			
Fluoranthene	31.2	5.00	"	33.3		93.7	50-139			
Fluorene	34.2	5.00	"	33.3		103	50-130			
Indeno (1,2,3-cd) pyrene	32.1	5.00	"	33.3		96.4	26-139			
Naphthalene	32.9	5.00	"	33.3		98.7	40-135			
Pyrene	37.1	5.00	"	33.3		111	39-141			
Surrogate: 2-Methylnaphthalene-d10	*35.3*		*"*	*34.8*		*101*	*50-150*			
Surrogate: Fluoranthene-d10	*32.7*		*"*	*34.5*		*94.8*	*50-150*			

Joseph J Egry IV, Laboratory Director

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100803 - EPA 5030 Soil MS										
LCS Dup (3100803-BSD1)				Prepared & Analyzed: 10/08/13						
Acenaphthene	34.7	5.00	ug/kg	33.3		104	48-131	2.23	23	
Anthracene	32.2	5.00	"	33.3		96.5	48-135	2.59	28	
Benzo (a) anthracene	35.4	5.00	"	33.3		106	37-142	4.41	32	
Benzo (b) fluoranthene	39.1	5.00	"	33.3		117	35-139	18.9	30	
Benzo (k) fluoranthene	36.0	5.00	"	33.3		108	30-139	14.7	27	
Benzo (a) pyrene	34.3	5.00	"	33.3		103	41-132	4.71	25	
Chrysene	31.9	5.00	"	33.3		95.6	30-136	5.21	27	
Dibenz (a,h) anthracene	36.3	5.00	"	33.3		109	24-127	8.38	29	
Fluoranthene	31.0	5.00	"	33.3		93.0	50-139	0.746	26	
Fluorene	35.1	5.00	"	33.3		105	50-130	2.52	24	
Indeno (1,2,3-cd) pyrene	31.6	5.00	"	33.3		94.7	26-139	1.76	30	
Naphthalene	34.2	5.00	"	33.3		103	40-135	3.87	21	
Pyrene	35.1	5.00	"	33.3		105	39-141	5.48	26	
Surrogate: 2-Methylnaphthalene-d10	*34.1*		*"*	*34.8*		*98.0*	*50-150*			
Surrogate: Fluoranthene-d10	*32.0*		*"*	*34.5*		*92.8*	*50-150*			
Duplicate (3100803-DUP1)				**Source: R310076-01**	Prepared & Analyzed: 10/08/13					
Acenaphthene	ND	5.00	ug/kg		ND				200	
Anthracene	ND	5.00	"		ND				200	
Benzo (a) anthracene	ND	5.00	"		ND				200	
Benzo (b) fluoranthene	ND	5.00	"		ND				200	
Benzo (k) fluoranthene	ND	5.00	"		ND				200	
Benzo (a) pyrene	ND	5.00	"		ND				200	
Chrysene	ND	5.00	"		ND				200	
Dibenz (a,h) anthracene	ND	5.00	"		ND				200	
Fluoranthene	ND	5.00	"		ND				200	
Fluorene	ND	5.00	"		ND				200	
Indeno (1,2,3-cd) pyrene	ND	5.00	"		ND				200	
Naphthalene	ND	5.00	"		ND				200	
Pyrene	ND	5.00	"		ND				200	
Surrogate: 2-Methylnaphthalene-d10	*31.5*		*"*	*34.8*		*90.5*	*50-150*			
Surrogate: Fluoranthene-d10	*26.5*		*"*	*34.5*		*76.8*	*50-150*			

Joseph J Egry IV, Laboratory Director

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100803 - EPA 5030 Soil MS										
Matrix Spike (3100803-MS1)	**Source: R310076-02**			Prepared & Analyzed: 10/08/13						
Acenaphthene	35.0	5.00	ug/kg	33.3	ND	105	27-140			
Anthracene	31.2	5.00	"	33.3	ND	93.6	23-144			
Benzo (a) anthracene	35.4	5.00	"	33.3	ND	106	12-168			
Benzo (b) fluoranthene	42.9	5.00	"	33.3	ND	129	10-170			
Benzo (k) fluoranthene	32.8	5.00	"	33.3	ND	98.3	11-150			
Benzo (a) pyrene	29.9	5.00	"	33.3	ND	89.8	11-162			
Chrysene	32.7	5.00	"	33.3	ND	98.0	10-167			
Dibenz (a,h) anthracene	20.1	5.00	"	33.3	ND	60.3	10-128			
Fluoranthene	25.1	5.00	"	33.3	ND	75.3	18-157			
Fluorene	38.2	5.00	"	33.3	ND	114	37-133			
Indeno (1,2,3-cd) pyrene	23.0	5.00	"	33.3	ND	68.9	10-161			
Naphthalene	34.8	5.00	"	33.3	ND	104	10-157			
Pyrene	49.8	5.00	"	33.3	ND	149	10-166			
Surrogate: 2-Methylnaphthalene-d10	*33.5*		*"*	*34.8*		*96.3*	*50-150*			
Surrogate: Fluoranthene-d10	*26.3*		*"*	*34.5*		*76.2*	*50-150*			

Joseph J Egry IV, Laboratory Director

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100707 - EPA 3050B										
Blank (3100707-BLK1)				Prepared & Analyzed: 10/07/13						
Arsenic	ND	0.100	mg/kg wet							
Barium	ND	0.100	"							
Cadmium	ND	0.100	"							
Chromium	ND	0.500	"							
Copper	ND	0.500	"							
Lead	ND	0.100	"							
Nickel	ND	0.100	"							
Selenium	ND	0.0500	"							
Silver	ND	0.100	"							
Zinc	ND	10.0	"							
LCS (3100707-BS1)				Prepared & Analyzed: 10/07/13						
Arsenic	2.56	0.100	mg/kg wet	2.50		102	80-120			
Barium	226	0.100	"	225		100	80-120			
Cadmium	1.08	0.100	"	1.00		107	80-120			
Chromium	10.8	0.500	"	10.0		108	80-120			
Copper	22.2	0.500	"	20.0		111	80-120			
Lead	7.57	0.100	"	7.52		101	80-120			
Nickel	16.8	0.100	"	15.0		112	80-120			
Selenium	1.36	0.0500	"	1.25		109	80-120			
Silver	0.259	0.100	"	0.250		104	80-120			
Zinc	8.18	10.0	"	7.52		109	80-120			
LCS Dup (3100707-BSD1)				Prepared & Analyzed: 10/07/13						
Arsenic	2.67	0.100	mg/kg wet	2.49		107	80-120	4.25	20	
Barium	221	0.100	"	224		98.6	80-120	1.98	20	
Cadmium	1.01	0.100	"	0.999		101	80-120	6.09	20	
Chromium	11.3	0.500	"	9.99		113	80-120	4.33	20	
Copper	22.3	0.500	"	19.9		112	80-120	0.719	20	
Lead	7.17	0.100	"	7.49		95.7	80-120	5.50	20	
Nickel	17.7	0.100	"	15.0		118	80-120	5.35	20	
Selenium	1.35	0.0500	"	1.25		108	80-120	0.740	20	
Silver	0.236	0.100	"	0.249		94.6	80-120	9.47	20	
Zinc	8.17	10.0	"	7.49		109	80-120	0.163	20	

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100707 - EPA 3050B										
Matrix Spike (3100707-MS1)	**Source: R310076-01**			Prepared & Analyzed: 10/07/13						
Arsenic	6.74	0.0819	mg/kg dry	2.04	5.09	80.9	75-125			
Barium	260	0.0819	"	183	73.9	102	75-125			
Cadmium	0.944	0.0819	"	0.816	0.142	98.3	75-125			
Chromium	18.8	0.410	"	8.16	13.0	70.4	75-125			QM-07
Copper	22.8	0.410	"	16.3	10.6	75.1	75-125			
Lead	16.6	0.0819	"	6.12	14.1	40.1	75-125			QM-07
Nickel	28.6	0.0819	"	12.2	15.8	104	75-125			
Selenium	1.30	0.0410	"	1.02	0.528	75.3	75-125			
Silver	0.0448	0.0819	"	0.204	0.0134	15.4	75-125			QM-07
Zinc	22.0	8.19	"	6.12	20.6	22.0	75-125			QM-07
Matrix Spike Dup (3100707-MSD1)	**Source: R310076-01**			Prepared & Analyzed: 10/07/13						
Arsenic	7.01	0.0818	mg/kg dry	2.04	5.09	94.0	75-125	3.95	25	
Barium	252	0.0818	"	184	73.9	96.9	75-125	3.25	25	
Cadmium	0.967	0.0818	"	0.818	0.142	101	75-125	2.39	25	
Chromium	20.2	0.409	"	8.18	13.0	88.0	75-125	7.48	25	
Copper	23.5	0.409	"	16.3	10.6	79.2	75-125	3.06	25	
Lead	18.5	0.0818	"	6.14	14.1	70.6	75-125	10.7	25	QM-07
Nickel	28.0	0.0818	"	12.3	15.8	99.4	75-125	1.89	25	
Selenium	1.30	0.0409	"	1.02	0.528	75.1	75-125	0.00741	25	
Silver	0.0409	0.0818	"	0.204	0.0134	13.5	75-125	9.08	25	QM-07
Zinc	20.7	8.18	"	6.14	20.6	0.464	75-125	6.17	25	QM-07

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100705 - EPA 7471A										
Blank (3100705-BLK1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Mercury	ND	0.0500	mg/kg wet							
LCS (3100705-BS1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Mercury	0.419	0.0500	mg/kg wet	0.400		105	80-120			
LCS Dup (3100705-BSD1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Mercury	0.401	0.0500	mg/kg wet	0.400		100	80-120	4.39	20	
Matrix Spike (3100705-MS1)		**Source: R310076-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
Mercury	0.369	0.0429	mg/kg dry	0.343	0.0433	94.9	80-120			
Matrix Spike Dup (3100705-MSD1)		**Source: R310076-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
Mercury	0.365	0.0423	mg/kg dry	0.338	0.0433	95.1	80-120	0.989	20	

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Hexavalent Chromium by EPA 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100701 - General Preparation										
Blank (3100701-BLK1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Chromium, Hexavalent	ND	1.00	mg/kg wet							
LCS (3100701-BS1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Chromium, Hexavalent	118	1.25	mg/kg wet	119		99.1	85-115			
LCS Dup (3100701-BSD1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Chromium, Hexavalent	118	1.25	mg/kg wet	117		101	85-115	0.677	20	
Duplicate (3100701-DUP1)		**Source: R310070-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
Chromium, Hexavalent	ND	2.66	mg/kg dry		ND				20	
Matrix Spike (3100701-MS1)		**Source: R310070-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
Chromium, Hexavalent	79.9	2.66	mg/kg dry		ND		85-115			QM-05

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100706 - General Preparation										
Blank (3100706-BLK1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Calcium	ND	10.0	mg/kg wet							
Magnesium	ND	5.00	"							
Sodium	ND	5.00	"							
LCS (3100706-BS1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Calcium	411	10.0	mg/kg wet	399		103	80-120			
Magnesium	202	5.00	"	200		101	80-120			
Sodium	489	5.00	"	499		97.9	80-120			
LCS Dup (3100706-BSD1)				Prepared: 10/07/13 Analyzed: 10/08/13						
Calcium	384	10.0	mg/kg wet	397		96.7	80-120	6.68	20	
Magnesium	198	5.00	"	199		99.2	80-120	2.25	20	
Sodium	474	5.00	"	497		95.5	80-120	2.96	20	
Matrix Spike (3100706-MS1)		**Source: R310076-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
Calcium	500	7.94	mg/kg dry	319	235	83.1	75-125			
Magnesium	218	3.97	"	160	77.6	87.7	75-125			
Sodium	412	3.97	"	399	44.9	92.0	75-125			
Matrix Spike Dup (3100706-MSD1)		**Source: R310076-01**		Prepared: 10/07/13 Analyzed: 10/08/13						
Calcium	373	7.97	mg/kg dry	318	235	43.5	75-125	29.0	25	QM-06
Magnesium	179	3.99	"	160	77.6	63.2	75-125	19.8	25	QM-06
Sodium	342	3.99	"	398	44.9	74.7	75-125	18.4	25	QM-06

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.

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100702 - General Preparation										
LCS (3100702-BS1)				Prepared & Analyzed: 10/07/13						
pH	8.03	0.100	pH Units	8.00		100	0-200			
Duplicate (3100702-DUP1)		**Source: R310076-01**		Prepared & Analyzed: 10/07/13						
pH	7.30	0.100	pH Units		8.57			16.0	20	
Batch 3100703 - General Preparation										
Blank (3100703-BLK1)				Prepared & Analyzed: 10/07/13						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
Duplicate (3100703-DUP1)		**Source: R310070-01**		Prepared & Analyzed: 10/07/13						
Specific Conductance (EC)	6.30	0.0100	mmhos/cm		6.32			0.158	20	
Batch 3100704 - General Preparation										
Duplicate (3100704-DUP1)		**Source: R310076-01**		Prepared & Analyzed: 10/07/13						
% Solids	87.5		%		88.8			1.47	20	

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-06	Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
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