

State of Colorado Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

REM 9024

Facility ID 443910

Location ID 313399

Document 2526545

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): Drilling pit assessment

OGCC Operator Number: 10396	Contact Name and Telephone: BRANDON YAW
Name of Operator: SWN PRODUCTION COMPANY LLC	No: (832) 796-6043
Address: 10000 ENERGY DRIVE	Fax: NA
City: SPRING State: TX Zip: 77389-4954	
API Number: 05-081-07439	County: MOFFAT
Facility Name: GAMMA STATE 14-15	Facility Number: 313399
Well Name: GAMMA STATE	Well Number: 14-15D
Location: (QtrQtr, Sec, Twp, Rng, Meridian): SWSW, SEC. 15, T7N, R93W, 6th PM Latitude: 40.552652 Longitude: -107.826573	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Potential drill cuttings from lined 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.): Rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Cushool Fine Sandy Loam, 3 to 12% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): No potential receptors within 0.25 miles

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	160' N-S, 90' E-W, 12' bgs	Excavation soil samples
<input type="checkbox"/> Vegetation		
<input type="checkbox"/> Groundwater		
<input type="checkbox"/> Surface Water		

REMEDIATION WORKPLAN

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

Per COGCC request, this Form 27 is updating Remediation #9024 for pit closure and reclamation procedure approval.

Describe how source is to be removed:

The source area was excavated until soil samples from the sidewalls and floor of the excavation confirmed compliance with applicable COGCC Table 910-1 standards. All soil stockpiles exhibiting concentrations exceeding COGCC cleanup standards have been hauled off and disposed at RN Industries disposal facility. See attached Site Diagram and Table 1 for laboratory analytical results and sample locations related to excavation confirmation soil samples.

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.:

Due to onsite soil remediation efforts not achieving cleanup goals, SWN chose to transport the E&P waste offsite to a permitted disposal facility. A total of 3,706 cubic yards of material was transported to the RN Industries, Inc. disposal facility for final disposal.



REMEDIAL WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: GAMMA STATE 14-15D
Facility Name & No: GAMMA STATE 14-15 313399

Page 2

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

Groundwater was not encountered during excavation activities.

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 site will be graded to establish pre-existing conditions. The excavation will be backfilled using clean cut material that is present on-site. Reclamation activities will be conducted in compliance with applicable COGCC Rule 1000 regulations.

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:

The site has been fully delineated and all impacted soil has been removed from the excavation.

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

Impacted soil has been removed and disposed at RN Industries disposal facility.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 4/14/2015 Date Site Investigation Completed: _____ Date Remediation Plan Submitted: 7/7/16
Remediation Start Date: 7/12/16 Anticipated Completion Date: 7/19/16 Actual Completion Date: _____

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

Print Name: M. BRANDON YAW

Signed:

Title: PRODUCTION ENGINEER

Date: 7/7/16

OGCC Approved:

Title: EPS

Date: 7/11/16

Based on review of information, No Further Action is required at this time. Should conditions at the site indicate contaminant concentrations in soils exceed COGCC standards, further investigation and/or remediation activities may be required at the site.



July 5, 2016

Mr. Brandon Yaw
SWN Production Company, LLC
10000 Energy Drive
Spring, Texas 77389

**RE: Remediation Activity Summary and No Further Action Request
Gamma State 14-15D Drilling Pit
Moffat County, Colorado
COGCC Remediation #9024**

Dear Mr. Yaw:

LT Environmental, Inc. (LTE), under the direction of SWN Production Company, LLC (SWN), conducted oversight of source removal, soil shredding activities, and confirmation soil sampling during closure activities at the Gamma State 14-15D Drilling Pit (Site). The Site is located approximately 0.75 miles north of US Highway 40 approximately 2.55 miles west of County Road 15 in Moffat County, Colorado. The legal site description is the southwest quarter of the southwest quarter of Section 15, Township 7 North, Range 93 West, 6th Principal Meridian. The Site Location Map is provided as Figure 1.

Site History and Excavation Scope of Work

Following an inspection by a Colorado Oil and Gas Conservation Commission (COGCC) representative, SWN commenced pit closure and reclamation activities at the Site. Under the direction of SWN, LTE personnel were on site in July 2015 to sample the contents of the pit. Eight soil samples were collected from the pit and submitted to a ALS Environmental for complete COGCC Table 910-1 analysis.

Based on analytical results, four of the soil samples (WW01, WW02, PB01, and PB02) exceeded Table 910-1 standards for total petroleum hydrocarbons (TPH). Five of the soil samples (EW02, WW01, WW02, PB01, and PB02) exceeded Table 910-1 standards for specific conductance (EC). The EC exceedances will be buried below the root-bearing zone once the pit is backfilled and will therefore no longer be addressed. All eight soil samples exceeded Table 910-1 standards for arsenic. However, the arsenic exceedances are within the range of background arsenic concentrations as indicated by background soil samples (BGN-01, BGS-01, BGE-01, and BGW-01) collected in April 2015. The soil sample locations are presented on Figure 2. The soil sample analytical results are summarized in Table 1 and included in Attachment 1. The July 2015 activities are documented in a Form27A Supplemental dated August 11, 2015 (Document #2315164).

Due to the TPH exceedances, SWN proposed to excavate the pit contents in the vicinity of soil samples WW01, WW02, PB01, and PB02.



LTE personnel were onsite to oversee and document excavation activities of the pit contents, direct excavation work, document onsite *ex-situ* soil remediation efforts, collect confirmation soil samples, and provide health and safety oversight. The contractor operating the excavation equipment and soil remediation equipment was Unlimited Construction of Roosevelt, Utah.

Excavation activities were initiated on November 9, 2015, and completed on November 16, 2015. The total extent of the excavation was approximately 160 feet north-south by 90 feet east-west to a total depth of 12 feet below ground surface (bgs), at which point bedrock was encountered. Groundwater was not encountered during excavation activities. The Excavation Site Map is provided as Figure 3.

Soil Treatment Scope of Work

Impacted soil was separated from clean overburden and pieces of pit liner and staged onsite for *ex-situ* treatment via mechanical shredding and chemical oxidation. The soil stockpiles were contained within bermed areas to prevent contact with potential stormwater run-on and prevent runoff from stormwater that had contacted the impacted soil. A total of approximately 3,553 cubic yards of impacted soil was treated on onsite. Following an analysis of the results of onsite soil remediation efforts, SWN chose to transport the exploration and production (E&P)-derived waste to the RN Industries, Inc. disposal facility in Rio Blanco County, Colorado, for final disposal.

Excavation Confirmation Soil Sampling

On November 10 through 16, 2015, LTE personnel collected 20 discrete confirmation soil samples from the excavation sidewalls and floor. All confirmation soil samples were collected, placed on ice, then submitted with a completed chain of custody form to ALS Environmental (ALS) of Holland, Michigan, for laboratory analysis of TPH as gasoline range organics (GRO) by United States Environmental Protection Agency (EPA) Method 8015D and TPH as diesel range organics (DRO) and TPH as oil range organics (ORO) by EPA Method 8015M. The analytical suite was determined based on the results from soil sampling conducted after the pit liner was removed in July 2015. The previously exceeded EC was not included in the analytical suite because those locations will eventually be buried below the root-bearing zone once the pit is backfilled. The arsenic exceedances are within range of the background samples collected on the site and were therefore not included in the analytical suite as well.

Potential petroleum hydrocarbon impacts were characterized in the area of the east wall of the pit during site assessment activities conducted on July 14, 2015. Laboratory analytical results of the July, 14, 2015 site assessment activities were presented in previous correspondence submitted to the COGCC. The area along the east wall of the pit was found to be in compliance as represented by soil samples EW01 and EW02 (please refer to COGCC document numbers 2315645 and 2315646).

Excavation Soil Analytical Results

The COGCC Table 910-1 standard for TPH in soil is 500 mg/kg. Excavation soil analytical results indicated soil samples PB-02, PB-03, and EB-03 exceeded the COGCC Table 910-1 standard for



TPH at concentrations of 1,636 mg/kg, 562 mg/kg, and 1,717 mg/kg, respectively. These three samples were collected at 10 feet bgs. Upon receipt of these results, further excavation was conducted to ensure the lateral and vertical extent of drill cuttings and surrounding petroleum hydrocarbon impacted soil was removed. Soil samples PB-04, PB-05, EB-06 were collected at 10 feet and 4 inches bgs in the vicinity of PB-02, PB-03, and EB-03, respectively. All soil samples representative of the final vertical and lateral extents of the excavation were in compliance with applicable COGCC Table 910-1 standards. Soil sample Overburden-01 was collected from the staged soil to characterize the extent of impact of the soil that was treated for design purposes regarding the amount of chemical oxidant that should be required to optimize the remediation efforts. The excavation confirmation soil sample locations are presented on Figure 3 and the laboratory analytical results are summarized in Table 2. The laboratory analytical reports are included as Attachment 1.

Due to onsite soil remediation efforts not achieving cleanup goals, SWN chose to transport the E&P-derived waste offsite to a permitted disposal facility. A total of 3,706 cubic yards of material was transported to the RN Industries, Inc. disposal facility in Rio Blanco County, Colorado, for final disposal. The waste manifests are included as Attachment 2.

Summary

Following an inspection by a Colorado Oil and Gas Conservation Commission (COGCC) representative, SWN commenced pit closure and reclamation activities at the Site. Excavation activities were conducted to remove the drill cuttings from the pit and adjacent soil that indicated the presence of petroleum hydrocarbon impact. Groundwater was not encountered during excavation activities. Per the excavation activities conducted and confirmation soil sample laboratory analytical results, the vertical and lateral extent of impacted soil was successfully removed.

The excavated soil was staged onsite for *ex-situ* remediation via mechanical shredding and chemical oxidation. Due to onsite soil remediation efforts not achieving cleanup goals, SWN transported the E&P-derived waste offsite to a permitted disposal facility. A total of 3,706 cubic yards of material was transported to the RN Industries, Inc. disposal facility in Rio Blanco County, Colorado, for final disposal.

The excavation activities were successful in removing the vertical and lateral extent of drill cuttings and adjacent petroleum hydrocarbon impacted soil which were subsequently transported offsite to a properly permitted facility for final disposal. As a result SWN respectfully requests a No Further Action (NFA) status be granted for the Gamma State 14-15D Drilling Pit. Once an NFA status is granted, clean fill will be used to backfill the excavation and reclamation activities will be completed in accordance with COGCC Reclamation Regulations.



LTE appreciates the opportunity to provide environmental services to SWN. Please call us at 303-433-9788 if you have any questions or comments regarding this report.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Chris Roy".

Chris Roy
Project Manager

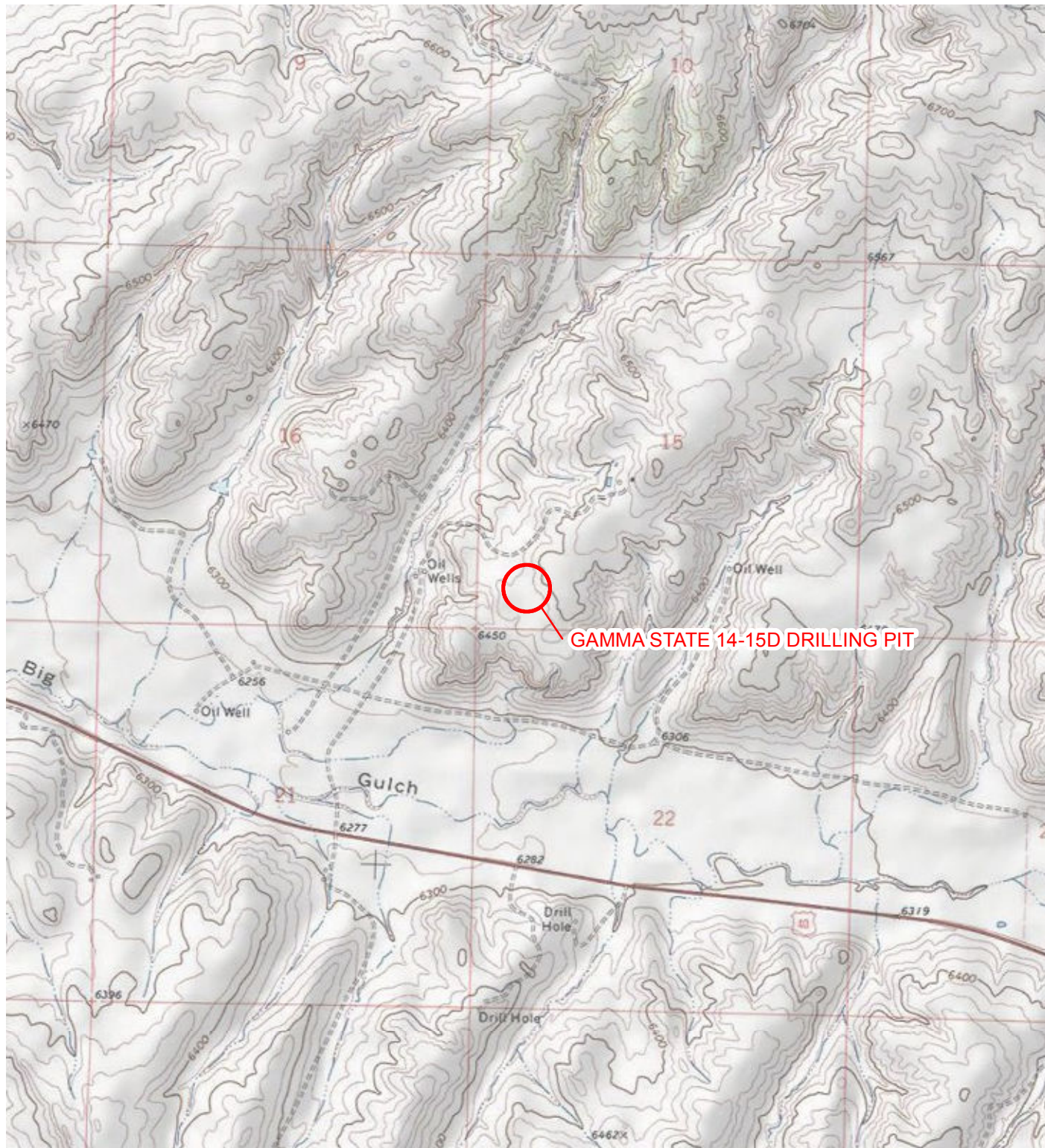
A handwritten signature in black ink, appearing to read "Steve Kahn".

Steve Kahn, P.E.
Vice President

Attachments

Figure 1	Site Location Map
Figure 2	Pit Contents Sampling Map
Figure 3	Excavation Site Map
Table 1	Pit Contents Analytical Results
Table 2	Excavation Soil Analytical Results
Attachment 1	Laboratory Analytical Reports
Attachment 2	Waste Manifests

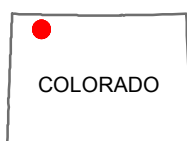
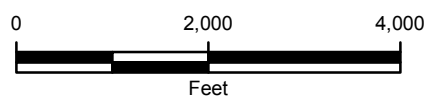
FIGURES



LEGEND

IMAGE COURTESY OF ESRI/USGS

○ SITE LOCATION



COLORADO

FIGURE 1
SITE LOCATION MAP
GAMMA STATE 14-15D DRILLING PIT
MOFFAT COUNTY, COLORADO

SWN PRODUCTION COMPANY, LLC.





IMAGE COURTESY OF ESRI

LEGEND

- PIT SAMPLE 7/14/2015
- ▲ BACKGROUND SAMPLE
- PIT BOUNDARY

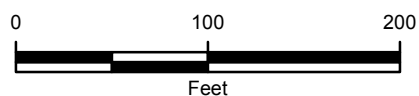


FIGURE 2
PIT CONTENTS SAMPLING MAP
GAMMA STATE 14-15D DRILLING PIT
MOFFAT COUNTY, COLORADO

SWN PRODUCTION COMPANY, LLC.





IMAGE COURTESY OF ESRI

LEGEND

- SOIL SAMPLE
- PIT BOUNDARY
- EXCAVATION EXTENT

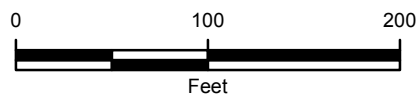


FIGURE 3
EXCAVATION SITE MAP
 GAMMA STATE 14-15D DRILLING PIT
 MOFFAT COUNTY, COLORADO

SWN PRODUCTION COMPANY, LLC.



TABLES

TABLE 1
PIT CONTENTS ANALYTICAL RESULTS
GAMMA STATE 14-15D DRILLING PIT
MOFFAT COUNTY, COLORADO
SWN PRODUCTION COMPANY, LLC

Parameter	COGCC Table 910-1 Concentration Levels		Units	BGN-01	BGS-01	BGE-01	BGW-01	NW01	EW01	EW02	SW01	WW01	WW02	PB01	PB02
Sample Date				4/28/2015	4/28/2015	4/28/2015	4/28/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015
Sample Type				Background	Background	Background	Background	Side Wall	Side Wall	Side Wall	Side Wall	Side Wall	Side Wall	Pit Floor	Pit Floor
Depth (inches bgs)				Surface	Surface	Surface	Surface	6	6	6	6	6	6	9	9
Benzene	0.17	mg/kg		NA	NA	NA	NA	<0.032	<0.034	<0.033	<0.034	<0.033	<0.033	<0.033	<0.034
Toluene	85	mg/kg		NA	NA	NA	NA	<0.032	<0.034	<0.033	<0.034	<0.033	<0.033	<0.033	0.034
Ethylbenzene	100	mg/kg		NA	NA	NA	NA	<0.032	<0.034	<0.033	<0.034	<0.033	<0.033	<0.033	<0.034
Total Xylenes	175	mg/kg		NA	NA	NA	NA	<0.095	<0.10	<0.098	<0.10	<0.10	<0.10	<0.099	0.15
TEPH-DRO	--	mg/kg		NA	NA	NA	NA	47	64	100	36	7,500	2,600	1,200	5,700
TVPH-GRO	--	mg/kg		NA	NA	NA	NA	<2.7	<2.8	<2.7	<2.9	<2.8	<2.8	<2.7	<2.8
TPH Total	500	mg/kg		NA	NA	NA	NA	47	64	100	36	7,500	2,600	1,200	5,700
Arsenic	0.39	mg/kg		3.1	4.0	3.6	5.0	2.5	4.0	2.9	4.5	5.2	3.3	2.7	4.8
Barium	15,000	mg/kg		NA	NA	NA	NA	50	140	92	120	340	310	110	290
Cadmium	70	mg/kg		NA	NA	NA	NA	<0.71	<0.73	<0.84	<0.86	<0.87	<0.85	<0.81	<0.79
Chromium (III)	120,000	mg/kg		NA	NA	NA	NA	4.3	3.7	4.5	7.5	6.4	6.1	4.3	6.4
Chromium (VI)	23	mg/kg		NA	NA	NA	NA	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1
Copper	3,100	mg/kg		NA	NA	NA	NA	4.5	5.6	5.4	5.0	6.3	5.6	4.8	8.4
Lead	400	mg/kg		NA	NA	NA	NA	2.1	2.0	2.4	3.4	4.5	3.2	2.2	5.7
Mercury	23	mg/kg		NA	NA	NA	NA	<0.014	<0.014	<0.014	<0.015	0.02	0.022	0.019	0.024
Nickel	1,600	mg/kg		NA	NA	NA	NA	7.4	8.0	8.2	11	13.0	12	12	13
Selenium	390	mg/kg		NA	NA	NA	NA	<0.71	<0.73	<0.84	<0.86	<0.87	<0.85	<0.81	1.3
Silver	390	mg/kg		NA	NA	NA	NA	<0.35	<0.36	<0.42	<0.43	<0.43	<0.42	<0.41	<0.40
Zinc	23,000	mg/kg		NA	NA	NA	NA	9.6	9.3	11	15	19	14	11	25
Acenaphthene	1,000	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	<0.0074
Anthracene	1,000	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	0.021	<0.0073	<0.0071	0.016
Benzo (A) anthracene	0.22	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	0.02	<0.0073	<0.0071	0.012
Benzo (B) fluoranthene	0.22	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.021
Benzo (K) fluoranthene	2.2	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.028
Benzo (A) pyrene	0.022	mg/kg		NA	NA	NA	NA	<0.0069	0.008	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.014
Chrysene	22	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	0.014	<0.0073	<0.0071	0.036
Dibenzo (A,H) anthracene	0.022	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.022
Fluoranthene	1,000	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	0.018	<0.0073	<0.0071	0.029
Fluorene	1,000	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	0.024	0.019	<0.074
Indeno (1,2,3,C,D) pyrene	0.22	mg/kg		NA	NA	NA	NA	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.02
Napthalene	23	mg/kg		NA	NA	NA	NA	<0.0069	0.012	<0.0070	<0.0076	0.092	<0.0073	0.010	0.23
Pyrene	1,000	mg/kg		NA	NA	NA	NA	<0.0069	0.0087	<0.0070	<0.0076	0.025	<0.0073	<0.0071	0.04
EC	4	mmhos/cm		NA	NA	NA	NA	1.7	3.5	4.1	1.5	8.0	4.3	4.7	11.0
pH	6 - 9	SU		NA	NA	NA	NA	8.2	8.7	8.4	8.5	7.8	8.0	8.3	8.2
SAR	12	unitless		NA	NA	NA	NA	1.4	10	7.3	2.6	4.2	2.7	8.4	5.3

NOTES:
BOLD - indicates result exceeds the COGCC Table 910-1 Concentration Level
bgs - below ground surface
COGCC - Colorado Oil and Gas Conservation Commission
EC - electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter in saturated paste extract
NA - not analyzed
SAR - sodium adsorption ratio
SU - standard unit on saturated paste
TEPH-DRO - total extractable petroleum hydrocarbon-diesel range organics
TPH - total petroleum hydrocarbons
TVPH-GRO - total volume petroleum hydrocarbon-gasoline range organics
-- - not analyzed/no standard
< - less than the stated analytical reporting limit



TABLE 2

**EXCAVATION SOIL ANALYTICAL RESULTS
GAMMA STATE 14-15D DRILLING PIT
MOFFAT COUNTY, COLORADO
SWN PRODUCTION COMPANY, LLC**

Soil Sample	Depth (bgs)	Date	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	TPH (mg/kg)
Dump Line	3"	11/10/2015	<2.800	1.6	7.7	9.3
PB-01	10'	11/10/2015	<2.800	140	11	151
PB-02	10'	11/10/2015	<2.800	1,600	36	1,636
PB-03	10'	11/10/2015	<2.800	530	32	562
EB-01	10'	11/11/2015	<3.200	20	8.2	28.2
EB-02	10'	11/11/2015	<3.100	20	6.7	26.7
EB-03	10'	11/11/2015	<3.000	1,700	17	1,717
SWALL-01	<10'	11/11/2015	<2.900	3.2	<4.7	3.2
WWALL-01	<10'	11/11/2015	<2.800	<4.6	<4.6	<12.000
WWALL-02	<10'	11/11/2015	<2.800	12	5.5	17.5
WWALL-03	<10'	11/11/2015	<3.000	2.2	<4.8	2.2
Overburden-01 *	NA	11/12/2015	<2.800	790	23	813
WWALL-04	<10'	11/12/2015	<2.900	2.5	<4.8	2.5
NWALL-01	<10'	11/12/2015	<2.700	190	7.6	197.6
EWALL-01	<10'	11/12/2015	<2.700	3.4	<4.5	3.4
EB-04	10'	11/13/2015	<2.700	<4.3	<4.3	<11.300
EB-05	10'	11/13/2015	<2.700	<4.5	<4.5	<11.700
PB-04	10' 4"	11/13/2015	<2.600	2.4	<4.3	2.4
PB-05	10' 4"	11/13/2015	<2.700	<4.5	<4.5	<11.700
EB-06	10' 4"	11/16/2015	<2.700	<4.4	<4.4	<11.500

NOTES:

bgs - below ground surface

DRO - diesel range organics analyzed by EPA Method 8015M

GRO - gasoline range organics analyzed by EPA Method 8015D

mg/kg - milligrams per kilogram

NA - not applicable

ORO - oil range organics analyzed by EPA Method 8015M

TPH - total petroleum hydrocarbons is the sum of GRO, DRO, and ORO

< - indicates result is less than the stated laboratory reporting limit

* The overburden sample was collected from aboveground stockpiled soils prior to *ex-situ* treatment

ATTACHMENT 1
LABORATORY ANALYTICAL REPORTS





11-May-2015

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

Re: **Gamma State 14-15D (039615002)**

Work Order: **1505056**

Dear Brett,

ALS Environmental received 8 samples on 01-May-2015 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 33.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc.
Project: Gamma State 14-15D (039615002)
Work Order: 1505056

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1505056-01	Dump line	Soil		4/28/2015 10:50	5/1/2015 10:00	<input type="checkbox"/>
1505056-02	Pit S-01	Soil		4/28/2015 11:30	5/1/2015 10:00	<input type="checkbox"/>
1505056-03	Pit N-01	Soil		4/28/2015 12:00	5/1/2015 10:00	<input type="checkbox"/>
1505056-04	BGW-01	Soil		4/28/2015 12:25	5/1/2015 10:00	<input type="checkbox"/>
1505056-05	BGS-01	Soil		4/28/2015 12:35	5/1/2015 10:00	<input type="checkbox"/>
1505056-06	BGE-01	Soil		4/28/2015 12:45	5/1/2015 10:00	<input type="checkbox"/>
1505056-07	BGN-01	Soil		4/28/2015 12:55	5/1/2015 10:00	<input type="checkbox"/>
1505056-08	Pit S-02	Soil		4/28/2015 13:40	5/1/2015 10:00	<input type="checkbox"/>

Client: LT Environmental, Inc.
Project: Gamma State 14-15D (039615002)
Work Order: 1505056

Case Narrative

Batch 70715, Method SVO_8270_S, Sample 1505056-02B and -03B: The surrogate recoveries are outside of control limits due to matrix interference.

Batch 70715, Method SVO_8270_S, Sample 1505056-02B: The SVOC reporting limits are elevated due to dilution for high concentrations of non-target analytes.

Batch 70716, Method DRO_8015_S, Samples 1505056-01B, -02B, -03B and -08B: DRO surrogate recovery high due to matrix interference.

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Project: Gamma State 14-15D (039615002)

Sample ID: Dump line

Collection Date: 4/28/2015 10:50 AM

Work Order: 1505056

Lab ID: 1505056-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	45,000		SW8015M		Prep: SW3541 / 5/6/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	573	S	210	mg/Kg-dry	10	5/7/2015 08:34 PM
			39-133	%REC	10	5/7/2015 08:34 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	32,000		SW8015D		Prep: SW5035 / 5/6/15	Analyst: IT
<i>Surr: Toluene-d8</i>	106		3,200	µg/Kg-dry	1	5/6/2015 09:40 PM
			50-150	%REC	1	5/6/2015 09:40 PM
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND		SW8260B		Prep: SW5035 / 5/6/15	Analyst: LSY
Ethylbenzene	ND		0.038	mg/Kg-dry	1	5/8/2015 08:17 AM
m,p-Xylene	ND		0.038	mg/Kg-dry	1	5/8/2015 08:17 AM
o-Xylene	ND		0.076	mg/Kg-dry	1	5/8/2015 08:17 AM
Toluene	ND		0.038	mg/Kg-dry	1	5/8/2015 08:17 AM
Xylenes, Total	ND		0.038	mg/Kg-dry	1	5/8/2015 08:17 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	96.2		0.11	mg/Kg-dry	1	5/8/2015 08:17 AM
<i>Surr: 4-Bromofluorobenzene</i>	97.2		70-130	%REC	1	5/8/2015 08:17 AM
<i>Surr: Dibromofluoromethane</i>	99.0		70-130	%REC	1	5/8/2015 08:17 AM
<i>Surr: Toluene-d8</i>	101		70-130	%REC	1	5/8/2015 08:17 AM
MOISTURE						
Moisture	21		E160.3M			Analyst: EVB
			0.050	% of sample	1	5/6/2015 05:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Project: Gamma State 14-15D (039615002)

Sample ID: Pit S-01

Collection Date: 4/28/2015 11:30 AM

Work Order: 1505056

Lab ID: 1505056-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	44,000		SW8015M		Prep: SW3541 / 5/6/15	Analyst: IT
Surr: 4-Terphenyl-d14	1,520	S	200	mg/Kg-dry	10	5/7/2015 09:01 PM
			39-133	%REC	10	5/7/2015 09:01 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 5/6/15	Analyst: IT
Surr: Toluene-d8	103		3,100	µg/Kg-dry	1	5/6/2015 10:05 PM
			50-150	%REC	1	5/6/2015 10:05 PM
MERCURY BY CVAA						
Mercury	0.042		SW7471B		Prep: SW7471 / 5/4/15	Analyst: LR
			0.018	mg/Kg-dry	1	5/5/2015 01:28 AM
METALS ANALYSIS BY ICP						
Arsenic	11		SW846 6010C		Prep: SW3050B / 5/4/15	Analyst: JEC
			0.43	mg/Kg-dry	1	5/5/2015 03:13 PM
Barium	1,100		0.43	mg/Kg-dry	1	5/5/2015 03:13 PM
Cadmium	0.94		0.85	mg/Kg-dry	1	5/5/2015 03:13 PM
Chromium	13		0.43	mg/Kg-dry	1	5/5/2015 03:13 PM
Copper	30		0.85	mg/Kg-dry	1	5/5/2015 03:13 PM
Lead	52		0.43	mg/Kg-dry	1	5/5/2015 03:13 PM
Nickel	29		0.43	mg/Kg-dry	1	5/5/2015 03:13 PM
Selenium	4.1		0.85	mg/Kg-dry	1	5/5/2015 03:13 PM
Silver	ND		0.43	mg/Kg-dry	1	5/5/2015 03:13 PM
Zinc	120		0.85	mg/Kg-dry	1	5/5/2015 03:13 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 5/5/15	Analyst: JEC
Calcium	580		5.0	mg/L	10	5/5/2015 12:48 PM
Magnesium	42		2.0	mg/L	10	5/5/2015 12:48 PM
Sodium	64		2.0	mg/L	10	5/5/2015 12:48 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/5/15	Analyst: JEC
Sodium Adsorption Ratio	0.69		0.010	none	1	5/5/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 5/6/15	Analyst: RS
Acenaphthene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Anthracene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Benzo(a)anthracene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Benzo(a)pyrene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Benzo(b)fluoranthene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Benzo(k)fluoranthene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Chrysene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Dibenzo(a,h)anthracene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Fluoranthene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Project: Gamma State 14-15D (039615002)

Sample ID: Pit S-01

Collection Date: 4/28/2015 11:30 AM

Work Order: 1505056

Lab ID: 1505056-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Indeno(1,2,3-cd)pyrene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Naphthalene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Pyrene	ND		0.33	mg/Kg-dry	10	5/8/2015 04:11 PM
Surr: 2-Fluorobiphenyl	128	S	12-100	%REC	10	5/8/2015 04:11 PM
Surr: 4-Terphenyl-d14	142	S	25-137	%REC	10	5/8/2015 04:11 PM
Surr: Nitrobenzene-d5	83.2		37-107	%REC	10	5/8/2015 04:11 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/6/15		Analyst: LSY
Benzene	ND		0.037	mg/Kg-dry	1	5/8/2015 08:43 AM
Ethylbenzene	ND		0.037	mg/Kg-dry	1	5/8/2015 08:43 AM
m,p-Xylene	ND		0.074	mg/Kg-dry	1	5/8/2015 08:43 AM
o-Xylene	ND		0.037	mg/Kg-dry	1	5/8/2015 08:43 AM
Toluene	ND		0.037	mg/Kg-dry	1	5/8/2015 08:43 AM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	5/8/2015 08:43 AM
Surr: 1,2-Dichloroethane-d4	96.1		70-130	%REC	1	5/8/2015 08:43 AM
Surr: 4-Bromofluorobenzene	94.4		70-130	%REC	1	5/8/2015 08:43 AM
Surr: Dibromofluoromethane	99.8		70-130	%REC	1	5/8/2015 08:43 AM
Surr: Toluene-d8	102		70-130	%REC	1	5/8/2015 08:43 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/5/15		Analyst: JB
Electrical Conductivity @ Saturation	4.3		0.050	mmhos/cm @2	10	5/5/2015 06:50 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JB
Chromium, Trivalent	12		0.62	mg/Kg-dry	1	5/8/2015 04:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/6/15		Analyst: MB
Chromium, Hexavalent	ND		1.3	mg/Kg-dry	1	5/7/2015 03:30 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	19		0.050	% of sample	1	5/6/2015 06:45 PM
PH			SW9045D	Prep: EXTRACT / 5/5/15		Analyst: JB
pH	7.4			s.u.	1	5/5/2015 06:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Project: Gamma State 14-15D (039615002)

Sample ID: Pit N-01

Collection Date: 4/28/2015 12:00 PM

Work Order: 1505056

Lab ID: 1505056-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	85,000		SW8015M		Prep: SW3541 / 5/6/15	Analyst: IT
Surr: 4-Terphenyl-d14	5,580	S	610	mg/Kg-dry	10	5/7/2015 09:28 PM
			39-133	%REC	10	5/7/2015 09:28 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 5/6/15	Analyst: IT
Surr: Toluene-d8	107		3,700	µg/Kg-dry	1	5/6/2015 10:30 PM
			50-150	%REC	1	5/6/2015 10:30 PM
MERCURY BY CVAA						
Mercury	0.041		SW7471B		Prep: SW7471 / 5/4/15	Analyst: LR
			0.020	mg/Kg-dry	1	5/5/2015 01:37 AM
METALS ANALYSIS BY ICP						
Arsenic	5.7		SW846 6010C		Prep: SW3050B / 5/4/15	Analyst: JEC
Barium	2,700		0.50	mg/Kg-dry	1	5/5/2015 03:19 PM
Cadmium	ND		0.50	mg/Kg-dry	1	5/5/2015 03:19 PM
Chromium	14		0.99	mg/Kg-dry	1	5/5/2015 03:19 PM
Copper	59		0.50	mg/Kg-dry	1	5/5/2015 03:19 PM
Lead	30		0.99	mg/Kg-dry	1	5/5/2015 03:19 PM
Nickel	34		0.50	mg/Kg-dry	1	5/5/2015 03:19 PM
Selenium	ND		0.50	mg/L-dry	1	5/6/2015 02:40 PM
Silver	ND		0.99	mg/Kg-dry	1	5/5/2015 03:19 PM
Zinc	130		0.50	mg/Kg-dry	1	5/5/2015 03:19 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 5/5/15	Analyst: JEC
Calcium	4,000		5.0	mg/L	10	5/5/2015 12:54 PM
Magnesium	6.2		2.0	mg/L	10	5/5/2015 12:54 PM
Sodium	1,100		2.0	mg/L	10	5/5/2015 12:54 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/5/15	Analyst: JEC
Sodium Adsorption Ratio	4.8		0.010	none	1	5/5/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 5/6/15	Analyst: RS
Acenaphthene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Anthracene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Benzo(a)anthracene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Benzo(a)pyrene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Benzo(b)fluoranthene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Benzo(k)fluoranthene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Chrysene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Dibenzo(a,h)anthracene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Fluoranthene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Project: Gamma State 14-15D (039615002)

Sample ID: Pit N-01

Collection Date: 4/28/2015 12:00 PM

Work Order: 1505056

Lab ID: 1505056-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Indeno(1,2,3-cd)pyrene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Naphthalene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Pyrene	ND		0.98	mg/Kg-dry	10	5/8/2015 04:37 PM
Surr: 2-Fluorobiphenyl	136	S	12-100	%REC	10	5/8/2015 04:37 PM
Surr: 4-Terphenyl-d14	200	S	25-137	%REC	10	5/8/2015 04:37 PM
Surr: Nitrobenzene-d5	86.0		37-107	%REC	10	5/8/2015 04:37 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/6/15		Analyst: LSY
Benzene	ND		0.045	mg/Kg-dry	1	5/8/2015 06:47 PM
Ethylbenzene	0.10		0.045	mg/Kg-dry	1	5/8/2015 06:47 PM
m,p-Xylene	0.45		0.089	mg/Kg-dry	1	5/8/2015 06:47 PM
o-Xylene	0.21		0.045	mg/Kg-dry	1	5/8/2015 06:47 PM
Toluene	0.17		0.045	mg/Kg-dry	1	5/8/2015 06:47 PM
Xylenes, Total	0.65		0.13	mg/Kg-dry	1	5/8/2015 06:47 PM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	5/8/2015 06:47 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	5/8/2015 06:47 PM
Surr: Dibromofluoromethane	98.4		70-130	%REC	1	5/8/2015 06:47 PM
Surr: Toluene-d8	101		70-130	%REC	1	5/8/2015 06:47 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/5/15		Analyst: JB
Electrical Conductivity @ Saturation	33		0.050	mmhos/cm @2	10	5/5/2015 06:50 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JB
Chromium, Trivalent	14		0.74	mg/Kg-dry	1	5/8/2015 04:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/6/15		Analyst: MB
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	5/7/2015 03:30 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	33		0.050	% of sample	1	5/6/2015 06:45 PM
PH			SW9045D	Prep: EXTRACT / 5/5/15		Analyst: JB
pH	7.9			s.u.	1	5/5/2015 06:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 11-May-15**Client:** LT Environmental, Inc.**Project:** Gamma State 14-15D (039615002)**Work Order:** 1505056**Sample ID:** BGW-01**Lab ID:** 1505056-04**Collection Date:** 4/28/2015 12:25 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/5/15	Analyst: ML
Arsenic	5.0		1.7	mg/Kg-dry	4	5/6/2015 06:03 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	13		0.050	% of sample	1	5/6/2015 06:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 11-May-15**Client:** LT Environmental, Inc.**Project:** Gamma State 14-15D (039615002)**Work Order:** 1505056**Sample ID:** BGS-01**Lab ID:** 1505056-05**Collection Date:** 4/28/2015 12:35 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/5/15	Analyst: ML
Arsenic	4.0		1.7	mg/Kg-dry	4	5/6/2015 06:09 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	15		0.050	% of sample	1	5/6/2015 06:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 11-May-15**Client:** LT Environmental, Inc.**Project:** Gamma State 14-15D (039615002)**Work Order:** 1505056**Sample ID:** BGE-01**Lab ID:** 1505056-06**Collection Date:** 4/28/2015 12:45 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/5/15	Analyst: ML
Arsenic	3.6		1.5	mg/Kg-dry	4	5/6/2015 06:15 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	11		0.050	% of sample	1	5/6/2015 06:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 11-May-15**Client:** LT Environmental, Inc.**Project:** Gamma State 14-15D (039615002)**Work Order:** 1505056**Sample ID:** BGN-01**Lab ID:** 1505056-07**Collection Date:** 4/28/2015 12:55 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/5/15	Analyst: ML
Arsenic	3.1		1.5	mg/Kg-dry	4	5/6/2015 06:40 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	11		0.050	% of sample	1	5/6/2015 06:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Project: Gamma State 14-15D (039615002)

Sample ID: Pit S-02

Collection Date: 4/28/2015 01:40 PM

Work Order: 1505056

Lab ID: 1505056-08

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/6/15	Analyst: IT
DRO (C10-C28)	62,000		190	mg/Kg-dry	10	5/7/2015 10:23 PM
Surr: 4-Terphenyl-d14	5,640	S	39-133	%REC	10	5/7/2015 10:23 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 5/6/15	Analyst: IT
GRO (C6-C10)	670,000		15,000	µg/Kg-dry	5	5/6/2015 10:55 PM
Surr: Toluene-d8	119		50-150	%REC	5	5/6/2015 10:55 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 5/6/15	Analyst: BG
Benzene	0.41		0.35	mg/Kg-dry	10	5/11/2015 11:27 AM
Ethylbenzene	0.83		0.35	mg/Kg-dry	10	5/11/2015 11:27 AM
m,p-Xylene	3.2		0.70	mg/Kg-dry	10	5/11/2015 11:27 AM
o-Xylene	1.6		0.35	mg/Kg-dry	10	5/11/2015 11:27 AM
Toluene	1.7		0.35	mg/Kg-dry	10	5/11/2015 11:27 AM
Xylenes, Total	4.8		1.0	mg/Kg-dry	10	5/11/2015 11:27 AM
Surr: 1,2-Dichloroethane-d4	113		70-130	%REC	10	5/11/2015 11:27 AM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	10	5/11/2015 11:27 AM
Surr: Dibromofluoromethane	108		70-130	%REC	10	5/11/2015 11:27 AM
Surr: Toluene-d8	99.2		70-130	%REC	10	5/11/2015 11:27 AM
MOISTURE						
			E160.3M			Analyst: EVB
Moisture	14		0.050	% of sample	1	5/6/2015 06:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-May-15

Client: LT Environmental, Inc.

Work Order: 1505056

Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70716**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-70716-70716				Units: mg/Kg		Analysis Date: 5/6/2015 08:34 PM		
Client ID:		Run ID: GC8_150506A				SeqNo: 3262621		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.741	0	2	0	87.1	39-133		0		

LCS		Sample ID: DLCSS1-70716-70716				Units: mg/Kg		Analysis Date: 5/6/2015 09:02 PM		
Client ID:		Run ID: GC8_150506A				SeqNo: 3262622		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	195.1	5.0	200	0	97.5	61-109		0		
Surr: 4-Terphenyl-d14	1.57	0	2	0	78.5	39-133		0		

MS		Sample ID: 1505209-03C MS				Units: mg/Kg		Analysis Date: 5/7/2015 03:33 PM		
Client ID:		Run ID: GC8_150507A				SeqNo: 3266202		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	355.9	8.1	322.1	57.87	92.5	48-110		0		
Surr: 4-Terphenyl-d14	2.632	0	3.221	0	81.7	39-133		0		

MSD		Sample ID: 1505209-03C MSD				Units: mg/Kg		Analysis Date: 5/7/2015 04:00 PM		
Client ID:		Run ID: GC8_150507A				SeqNo: 3266203		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	316.5	7.9	314.2	57.87	82.3	48-110	355.9	11.7	30	
Surr: 4-Terphenyl-d14	2.533	0	3.142	0	80.6	39-133	2.632	3.85	30	

The following samples were analyzed in this batch:

1505056-01B	1505056-02B	1505056-03B
1505056-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
 Work Order: 1505056
 Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70721** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-70721-70721				Units: µg/Kg		Analysis Date: 5/6/2015 08:25 PM		
Client ID:		Run ID: GC9_150506A				SeqNo: 3262941		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	5092	0	5000	0	102	50-150	0			

LCS		Sample ID: LCS-70721-70721				Units: µg/Kg		Analysis Date: 5/6/2015 07:14 PM		
Client ID:		Run ID: GC9_150506A				SeqNo: 3262940		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	462500	2,500	500000	0	92.5	70-130	0			
Surr: Toluene-d8	4100	0	5000	0	82	50-150	0			

MS		Sample ID: 1505056-01A MS				Units: µg/Kg		Analysis Date: 5/6/2015 11:20 PM		
Client ID: Dump line		Run ID: GC9_150506A				SeqNo: 3262983		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	568200	2,500	500000	25470	109	70-130	0			
Surr: Toluene-d8	4054	0	5000	0	81.1	50-150	0			

MSD		Sample ID: 1505056-01A MSD				Units: µg/Kg		Analysis Date: 5/6/2015 11:45 PM		
Client ID: Dump line		Run ID: GC9_150506A				SeqNo: 3262984		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	625700	2,500	500000	25470	120	70-130	568200	9.64	30	
Surr: Toluene-d8	4715	0	5000	0	94.3	50-150	4054	15.1	30	

The following samples were analyzed in this batch:

1505056-01A	1505056-02A	1505056-03A
1505056-08A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70657** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-70657-70657					Units: mg/Kg		Analysis Date: 5/5/2015 01:07 AM		
Client ID:			Run ID: HG1_150504A				SeqNo: 3260427		Prep Date: 5/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury ND 0.020

LCS		Sample ID: LCS-70657-70657					Units: mg/Kg		Analysis Date: 5/5/2015 01:09 AM		
Client ID:			Run ID: HG1_150504A			SeqNo: 3260428		Prep Date: 5/4/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1921 0.020 0.1665 0 115 80-120 0

MS		Sample ID: 1505113-07CMS					Units: mg/Kg		Analysis Date: 5/5/2015 01:53 AM		
Client ID:			Run ID: HG1_150504A			SeqNo: 3260447		Prep Date: 5/4/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1344 0.012 0.1015 0.02633 106 75-125 0

MSD		Sample ID: 1505113-07CMSD				Units: mg/Kg		Analysis Date: 5/5/2015 01:55 AM		
Client ID:			Run ID: HG1_150504A			SeqNo: 3260448		Prep Date: 5/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1451 0.012 0.1032 0.02633 115 75-125 0.1344 7.65 35

The following samples were analyzed in this batch:

1505056-02B 1505056-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70580** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 1505048-05ADUP				Units: mg/L		Analysis Date: 5/5/2015 12:26 PM		
Client ID:		Run ID: ICP2_150505A				SeqNo: 3258724		Prep Date: 5/5/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	213	5.0	0	0	0	0-0	185.2	14		
Magnesium	20.05	2.0	0	0	0	0-0	17.5	13.6		
Sodium	4.319	2.0	0	0	0	0-0	3.801	12.8		

DUP		Sample ID: 1505048-05ADUP				Units: none		Analysis Date: 5/5/2015		
Client ID:		Run ID: SAR_150505B				SeqNo: 3258890		Prep Date: 5/5/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.07581	0.010	0	0	0		0.07153	5.81	50	

The following samples were analyzed in this batch: | 1505056-02C 1505056-03C |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70634** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-70634-70634				Units: mg/L		Analysis Date: 5/5/2015 09:42 AM		
Client ID:		Run ID: ICP2_150505A				SeqNo: 3258373		Prep Date: 5/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	0.01391	0.25								J
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-70634-70634				Units: mg/L		Analysis Date: 5/5/2015 09:48 AM		
Client ID:		Run ID: ICP2_150505A				SeqNo: 3258375		Prep Date: 5/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.037	0.25	5	0	101	80-120	0			
Barium	4.902	0.25	5	0	98	80-120	0			
Cadmium	4.662	0.50	5	0	93.2	80-120	0			
Chromium	5.105	0.25	5	0	102	80-120	0			
Copper	5.16	0.50	5	0	103	80-120	0			
Lead	5.025	0.25	5	0	101	80-120	0			
Nickel	5.045	0.25	5	0	101	80-120	0			
Selenium	5.181	0.50	5	0	104	80-120	0			
Silver	5.282	0.25	5	0	106	80-120	0			
Zinc	5.214	0.50	5	0	104	80-120	0			

MS		Sample ID: 1505054-01BMS				Units: mg/Kg		Analysis Date: 5/5/2015 10:04 AM		
Client ID:		Run ID: ICP2_150505A				SeqNo: 3258387		Prep Date: 5/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.34	0.38	7.657	5.263	105	75-125	0			
Barium	193.4	0.38	7.657	178.7	191	75-125	0			SO
Cadmium	7.042	0.77	7.657	-0.1541	94	75-125	0			
Chromium	25.39	0.38	7.657	15.59	128	75-125	0			S
Copper	27.3	0.77	7.657	19.39	103	75-125	0			
Lead	17.26	0.38	7.657	9.383	103	75-125	0			
Nickel	27	0.38	7.657	19.33	100	75-125	0			
Selenium	7.399	0.77	7.657	0.003245	96.6	75-125	0			
Silver	8.066	0.38	7.657	-0.1123	107	75-125	0			
Zinc	58.73	0.77	7.657	46.03	166	75-125	0			SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70634** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 1505054-01BMSD				Units: mg/Kg		Analysis Date: 5/5/2015 10:10 AM		
Client ID:		Run ID: ICP2_150505A				SeqNo: 3258389		Prep Date: 5/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.71	0.39	7.825	5.263	108	75-125	13.34	2.74	20	
Barium	187.9	0.39	7.825	178.7	117	75-125	193.4	2.89	20	O
Cadmium	7.088	0.78	7.825	-0.1541	92.6	75-125	7.042	0.652	20	
Chromium	25.48	0.39	7.825	15.59	126	75-125	25.39	0.353	20	S
Copper	26.39	0.78	7.825	19.39	89.5	75-125	27.3	3.41	20	
Lead	16.27	0.39	7.825	9.383	88	75-125	17.26	5.92	20	
Nickel	27.33	0.39	7.825	19.33	102	75-125	27	1.22	20	
Selenium	7.788	0.78	7.825	0.003245	99.5	75-125	7.399	5.12	20	
Silver	8.159	0.39	7.825	-0.1123	106	75-125	8.066	1.15	20	
Zinc	57.41	0.78	7.825	46.03	145	75-125	58.73	2.28	20	SO

The following samples were analyzed in this batch:

1505056-02B 1505056-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
 Work Order: 1505056
 Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70684** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-70684-70684				Units: mg/Kg		Analysis Date: 5/6/2015 02:15 AM		
Client ID:		Run ID: ICPMS1_150505A				SeqNo: 3260340		Prep Date: 5/5/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic ND 0.25

LCS		Sample ID: LCS-70684-70684				Units: mg/Kg		Analysis Date: 5/6/2015 04:00 AM		
Client ID:		Run ID: ICPMS1_150505A				SeqNo: 3260357		Prep Date: 5/5/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 4.578 0.25 5 0 91.6 80-120 0

MS		Sample ID: 15041291-09AMS				Units: mg/Kg		Analysis Date: 5/6/2015 04:12 AM		
Client ID:		Run ID: ICPMS1_150505A				SeqNo: 3260362		Prep Date: 5/5/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 6.079 0.33 6.57 0.6514 82.6 75-125 0

MSD		Sample ID: 15041291-09AMSD				Units: mg/Kg		Analysis Date: 5/6/2015 04:19 AM		
Client ID:		Run ID: ICPMS1_150505A				SeqNo: 3260364		Prep Date: 5/5/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 5.95 0.33 6.553 0.6514 80.8 75-125 6.079 2.15 25

The following samples were analyzed in this batch:

1505056-04A	1505056-05A	1505056-06A
1505056-07A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70715** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-70715-70715				Units: µg/Kg		Analysis Date: 5/7/2015 01:45 PM		
Client ID:		Run ID: SVMS5_150507A				SeqNo: 3263632		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1427	0	1667	0	85.6	12-100	0			
Surr: 4-Terphenyl-d14	2034	0	1667	0	122	25-137	0			
Surr: Nitrobenzene-d5	1750	0	1667	0	105	37-107	0			

LCS		Sample ID: SLCSS1-70715-70715				Units: µg/Kg		Analysis Date: 5/7/2015 02:08 PM		
Client ID:		Run ID: SVMS5_150507A				SeqNo: 3263633		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	511.7	6.7	666.7	0	76.7	45-110	0			
Anthracene	604.7	6.7	666.7	0	90.7	55-105	0			
Benzo(a)anthracene	659.7	6.7	666.7	0	98.9	50-110	0			
Benzo(a)pyrene	650.7	6.7	666.7	0	97.6	50-110	0			
Benzo(b)fluoranthene	636	6.7	666.7	0	95.4	45-115	0			
Benzo(k)fluoranthene	623	6.7	666.7	0	93.4	45-115	0			
Chrysene	658	6.7	666.7	0	98.7	55-110	0			
Dibenzo(a,h)anthracene	581.3	6.7	666.7	0	87.2	40-125	0			
Fluoranthene	627	6.7	666.7	0	94	55-115	0			
Fluorene	537.7	6.7	666.7	0	80.6	50-110	0			
Indeno(1,2,3-cd)pyrene	613	6.7	666.7	0	91.9	40-120	0			
Naphthalene	474	6.7	666.7	0	71.1	40-105	0			
Pyrene	696	6.7	666.7	0	104	45-125	0			
Surr: 2-Fluorobiphenyl	1195	0	1667	0	71.7	12-100	0			
Surr: 4-Terphenyl-d14	1825	0	1667	0	109	25-137	0			
Surr: Nitrobenzene-d5	1460	0	1667	0	87.6	37-107	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
 Work Order: 1505056
 Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: 70715 Instrument ID SVMS5 Method: SW846 8270D

MS				Sample ID: 1505007-13C MS			Units: µg/Kg		Analysis Date: 5/6/2015 10:55 PM		
Client ID:			Run ID: SVMS5_150506A			SeqNo: 3263310		Prep Date: 5/6/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	981.3	130	1283	0	76.5	45-110	0				
Anthracene	1110	130	1283	113.1	77.7	55-105	0				
Benzo(a)anthracene	1488	130	1283	389.2	85.7	50-110	0				
Benzo(a)pyrene	1822	130	1283	568.8	97.7	50-110	0				
Benzo(b)fluoranthene	1328	130	1283	372.6	74.5	45-115	0				
Benzo(k)fluoranthene	1482	130	1283	312.7	91.1	45-115	0				
Chrysene	1264	130	1283	312.7	74.1	55-110	0				
Dibenzo(a,h)anthracene	1385	130	1283	0	108	40-125	0				
Fluoranthene	1501	130	1283	602.1	70.1	55-115	0				
Fluorene	1020	130	1283	0	79.5	50-110	0				
Indeno(1,2,3-cd)pyrene	1591	130	1283	445.7	89.2	40-120	0				
Naphthalene	872.3	130	1283	0	68	40-105	0				
Pyrene	1494	130	1283	522.2	75.8	45-125	0				
Surr: 2-Fluorobiphenyl	2155	0	3207	0	67.2	12-100	0				
Surr: 4-Terphenyl-d14	2604	0	3207	0	81.2	25-137	0				
Surr: Nitrobenzene-d5	2360	0	3207	0	73.6	37-107	0				

MSD				Sample ID: 1505007-13C MSD				Units: µg/Kg		Analysis Date: 5/6/2015 11:17 PM	
Client ID:			Run ID: SVMS5_150506A			SeqNo: 3263311		Prep Date: 5/6/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	962.6	130	1267	0	76	45-110	981.3	1.93	30		
Anthracene	1153	130	1267	113.1	82.1	55-105	1110	3.8	30		
Benzo(a)anthracene	1520	130	1267	389.2	89.3	50-110	1488	2.12	30		
Benzo(a)pyrene	1843	130	1267	568.8	101	50-110	1822	1.16	30		
Benzo(b)fluoranthene	1355	130	1267	372.6	77.6	45-115	1328	2.05	30		
Benzo(k)fluoranthene	1501	130	1267	312.7	93.8	45-115	1482	1.29	30		
Chrysene	1267	130	1267	312.7	75.3	55-110	1264	0.237	30		
Dibenzo(a,h)anthracene	1381	130	1267	0	109	40-125	1385	0.353	30		
Fluoranthene	1495	130	1267	602.1	70.5	55-115	1501	0.424	30		
Fluorene	1039	130	1267	0	82	50-110	1020	1.82	30		
Indeno(1,2,3-cd)pyrene	1507	130	1267	445.7	83.8	40-120	1591	5.39	30		
Naphthalene	797.9	130	1267	0	63	40-105	872.3	8.91	30		
Pyrene	1469	130	1267	522.2	74.8	45-125	1494	1.7	30		
Surr: 2-Fluorobiphenyl	2052	0	3166	0	64.8	12-100	2155	4.91	40		
Surr: 4-Terphenyl-d14	2875	0	3166	0	90.8	25-137	2604	9.89	40		
Surr: Nitrobenzene-d5	2197	0	3166	0	69.4	37-107	2360	7.15	40		

The following samples were analyzed in this batch:

1505056-02B 1505056-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70720** Instrument ID **VMS6** Method: **SW8260B**

MBLK				Sample ID: MBLK-70720-70720				Units: µg/Kg			Analysis Date: 5/7/2015 05:32 PM			
Client ID:				Run ID: VMS6_150507A				SeqNo: 3265326			Prep Date: 5/6/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	ND	30												
Ethylbenzene	ND	30												
m,p-Xylene	ND	60												
o-Xylene	ND	30												
Toluene	ND	30												
Xylenes, Total	ND	90												
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1024</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>							
<i>Surr: 4-Bromofluorobenzene</i>	<i>905.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>90.6</i>	<i>70-130</i>	<i>0</i>							
<i>Surr: Dibromofluoromethane</i>	<i>979.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>70-130</i>	<i>0</i>							
<i>Surr: Toluene-d8</i>	<i>1026</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>							

LCS				Sample ID: LCS-70720-70720			Units: µg/Kg		Analysis Date: 5/7/2015 04:13 PM		
Client ID:			Run ID: VMS6_150507A			SeqNo: 3265323		Prep Date: 5/6/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	969	30	1000	0	96.9	75-125	0				
Ethylbenzene	1030	30	1000	0	103	75-125	0				
m,p-Xylene	2131	60	2000	0	107	80-125	0				
o-Xylene	1024	30	1000	0	102	75-125	0				
Toluene	1038	30	1000	0	104	70-125	0				
Xylenes, Total	3154	90	3000	0	105	75-125	0				
Surr: 1,2-Dichloroethane-d4	981	0	1000	0	98.1	70-130	0				
Surr: 4-Bromofluorobenzene	955	0	1000	0	95.5	70-130	0				
Surr: Dibromofluoromethane	972	0	1000	0	97.2	70-130	0				
Surr: Toluene-d8	1018	0	1000	0	102	70-130	0				

The following samples were analyzed in this batch:

1505056-01A	1505056-02A	1505056-03A
1505056-08A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70580** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 1505048-05A DUP				Units: mmhos/cm @25°		Analysis Date: 5/5/2015 06:50 PM		
Client ID:		Run ID: WETCHEM_150505K				SeqNo: 3259681		Prep Date: 5/5/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.316	0.050	0	0	0		1.208	8.56	50	

The following samples were analyzed in this batch:

1505056-02C 1505056-03C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70690** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-70690-70690					Units: s.u.		Analysis Date: 5/5/2015 06:00 PM		
Client ID:		Run ID: WETCHEM_150505L			SeqNo: 3259688		Prep Date: 5/5/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 3.99 0 4 0 99.8 90-110 0

DUP		Sample ID: 15041768-03A DUP				Units: s.u.		Analysis Date: 5/5/2015 06:00 PM		
Client ID:		Run ID: WETCHEM_150505L				SeqNo: 3259692		Prep Date: 5/5/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 8.03 0 0 0 0 0-0 8.17 1.73 20

DUP				Sample ID: 15041768-11A DUP				Units: s.u.			Analysis Date: 5/5/2015 06:00 PM		
Client ID:				Run ID: WETCHEM_150505L				SeqNo: 3259701		Prep Date: 5/5/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

pH 8.01 0 0 0 0 0-0 8.01 0 20

The following samples were analyzed in this batch:

1505056-02B 1505056-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
 Work Order: 1505056
 Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **70763** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-70763-70763				Units: mg/Kg		Analysis Date: 5/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_150507L				SeqNo: 3264181		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 1.0

LCS		Sample ID: LCS-70763-70763				Units: mg/Kg		Analysis Date: 5/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_150507L				SeqNo: 3264180		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.78 1.0 5 0 95.6 80-120 0

MS		Sample ID: 1505075-01A MS				Units: mg/Kg		Analysis Date: 5/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_150507L				SeqNo: 3264173		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.979 1.0 5.208 0.2381 91 75-125 0

MS		Sample ID: 1505075-01A MSI				Units: mg/Kg		Analysis Date: 5/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_150507L				SeqNo: 3264175		Prep Date: 5/6/2015		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2044 100 2188 0.2381 93.4 75-125 0

MSD		Sample ID: 1505075-01A MSD				Units: mg/Kg		Analysis Date: 5/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_150507L				SeqNo: 3264174		Prep Date: 5/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 5.032 1.1 5.263 0.2381 91.1 75-125 4.979 1.05 20

The following samples were analyzed in this batch:

1505056-02B 1505056-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **R162890** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R162890					Units: % of sample		Analysis Date: 5/6/2015 05:45 PM		
Client ID:			Run ID: MOIST_150506B			SeqNo: 3263709		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.050

LCS		Sample ID: LCS-R162890				Units: % of sample		Analysis Date: 5/6/2015 05:45 PM		
Client ID:		Run ID: MOIST_150506B				SeqNo: 3263708		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP				Sample ID: 1505007-21C DUP				Units: % of sample			Analysis Date: 5/6/2015 05:45 PM			
Client ID:				Run ID: MOIST_150506B				SeqNo: 3263681			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 17.39 0.050 0 0 0 15.47 11.7 20

DUP				Sample ID: 1505046-02A DUP				Units: % of sample			Analysis Date: 5/6/2015 05:45 PM			
Client ID:				Run ID: MOIST_150506B				SeqNo: 3263695			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 22.35 0.050 0 0 0 23.48 4.93 20

The following samples were analyzed in this batch:

1505056-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1505056
Project: Gamma State 14-15D (039615002)

QC BATCH REPORT

Batch ID: **R162891** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R162891				Units: % of sample		Analysis Date: 5/6/2015 06:45 PM		
Client ID:		Run ID: MOIST_150506C				SeqNo: 3263833		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R162891				Units: % of sample		Analysis Date: 5/6/2015 06:45 PM		
Client ID:		Run ID: MOIST_150506C				SeqNo: 3263832		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1505056-02B DUP				Units: % of sample		Analysis Date: 5/6/2015 06:45 PM		
Client ID: Pit S-01		Run ID: MOIST_150506C				SeqNo: 3263811		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.3 0.050 0 0 0 19.42 0.62 20

DUP		Sample ID: 1505078-04A DUP				Units: % of sample		Analysis Date: 5/6/2015 06:45 PM		
Client ID:		Run ID: MOIST_150506C				SeqNo: 3263824		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 22.99 0.050 0 0 0 22.6 1.71 20

The following samples were analyzed in this batch:

1505056-02B	1505056-03B	1505056-04A
1505056-05A	1505056-06A	1505056-07A
1505056-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



☐ ALS Environmental
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

☒ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Customer Information		Project Information					Parameter/Method Request for Analysis											
Purchase Order	Project Name	A	TPH GRO/DRO															
Work Order	Project Number	B	BTEX															
Company Name	Bill To Company	C	Table 910 PAHs															
Sand Report To	Invoice Attn.	D	Table 910 Metals															
Address	Address	E	EC															
City/State/Zip	City/State/Zip	F	SAR															
Phone	Phone	G	pH															
Fax	Fax	H	Total Arsenic 6020															
e-Mail Address		I																
		J																
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	Dump line	4-28-15	10:50	Soil		2	X	X										
2	Pit S-01	4-28-15	11:30	Soil		4	X	X	X	X	X	X	X	X				
3	Pit N-01	4-28-15	12:00	Soil		4	X	X	X	X	X	X	X	X				
4	BGW-01	4-28-15	12:25	Soil		1								X				
5	BGS-01	4-28-15	12:35	Soil		1								X				
6	BGE-01	4-28-15	12:45	Soil		1								X				
7	BGN-01	4-28-15	12:55	Soil		1								X				
8	Pit S-02	4-28-15	13:40	Soil		4	X	X										
9																		
10																		

Sampler(s): Please Print & Sign <i>Steve Sivigliano / Steve Sygline</i>		Shipment Method: <i>Courier</i>		Required Turnaround Time: (Check Box) <input type="checkbox"/> 10 Wk Days <input checked="" type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date:						
Relinquished by: <i>Steve Sygline</i>		Date: <i>4-29-15</i>	Time:	Received by: <i>[Signature]</i>		Date: <i>4-29-15</i>	Time: <i>1500</i>	Notes: <i>Copy report to: skahn@Ltenv.com, sivigliano@Ltenv.com</i>						
Relinquished by: <i>[Signature]</i>		Date: <i>4-29-15</i>	Time: <i>1700</i>	Received by (Laboratory): <i>[Signature]</i>		Date: <i>5/1/15</i>	Time: <i>1000</i>	ALS Cooler ID		Cooler Temp <i>4.82</i>	QC Package: (Check Box Below) <input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV: SW846 Methods/CLP like <input type="checkbox"/> Other:			
Logged by (Laboratory): <i>DGS</i>		Date: <i>5/1/15</i>	Time: <i>1500</i>	Checked by (Laboratory): <i>[Signature]</i>										

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.



☐ ALS Environmental
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

☒ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:

ALS Work Order #:

Customer Information

Project Information

Parameter/Method Request for Analysis

Purchase Order:
Work Order:
Company Name: LT Environmental
Send Report To: Brett Forkner
Address: 4600 W. 60th Ave.
City/State/Zip: Arvada, CO 80003
Phone: 303-433-9788
Fax: 303-433-1432
e-Mail Address: bforkner@Ltenv.com

Project Name: Gamma State 14-15D
Project Number: 039615002
Bill To Company: LT Environmental
Invoice Attn: Same
Address: Same
City/State/Zip:
Phone:
Fax:

A: TPH GRO/DRO
B: BTEX
C: Table 910 PAHs
D: Table 910 Metals
E: EC
F: SAR
G: pH
H: Total Arsenic 6020
I:
J:

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Dump line	4-28-15	10:50	Soil		2	X	X									
2	Pit S-01	4-28-15	11:30	Soil		4	X	X	X	X	X	X	X	X			
3	Pit N-01	4-28-15	12:00	Soil		4	X	X	X	X	X	X	X	X			
4	BGW-01	4-28-15	12:25	Soil		1								X			
5	BGS-01	4-28-15	12:35	Soil		1								X			
6	BGE-01	4-28-15	12:45	Soil		1								X			
7	BGN-01	4-28-15	12:55	Soil		1								X			
8	Pit S-02	4-28-15	13:40	Soil		4	X	X									
9																	
10																	

Sampler(s): Please Print & Sign

Shipment Method:

Required Turnaround Time: (Check Box)

☐ Other

Results Due Date:

Steve Sivigliano / Steve Syta

Courier

☐ 10 Wk Days
☒ 15 Wk Days
☐ 3 Wk Days
☐ 2 Wk Days
☐ 24 Hour

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Notes: Copy report to: skahn@Ltenv.com, sivigliano@Ltenv.com

Relinquished by:

Date:

Time:

Received by (Laboratory):

Date:

Time:

ALS Cooler ID

Cooler Temp

QC Package: (Check Box Below)

☐ Level II: Standard QC ☐ Level III: Raw Data

☐ TRRP LRC ☐ TRRP Level IV

☐ Level IV: SW846 Methods/CLP like

☐ Other:

Logged by (Laboratory):

Date:

Time:

Checked by (Laboratory):

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C

4/29/2015

FedEx Ship Manager - Print Your Label(s)

From: (616) 298-1033
 Nick Martinez
 ALS Environmental
 127 E. 1st Street

Origin ID: RILA

FedEx
 Express


J151215022303UN

PARACHUTE, CO 81635

Ship Date: 28APR15
 ActWgt: 46.0 LB
 CAD: 2264840/NET3610

Dims: 14 X 26 X 15 IN

SHIP TO: (616) 399-6870

BILL SENDER

sample receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 49424

Delivery Address Bar Code



Ref # 042915-1
 Invoice #
 PO # Parachute
 Dept #

2 of 2

THU - 30 APR 10:30A
 PRIORITY OVERNIGHT

MP6# 7734 9054 0663

0263

Mstr# 7734 9054 0733

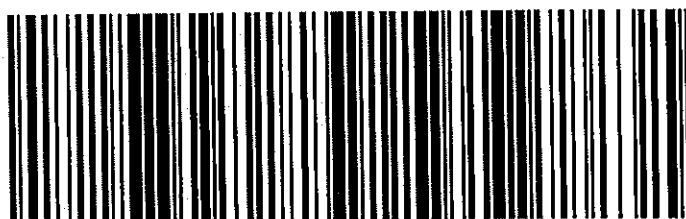
0281

49424

MI-US

GRR

XX HLMA



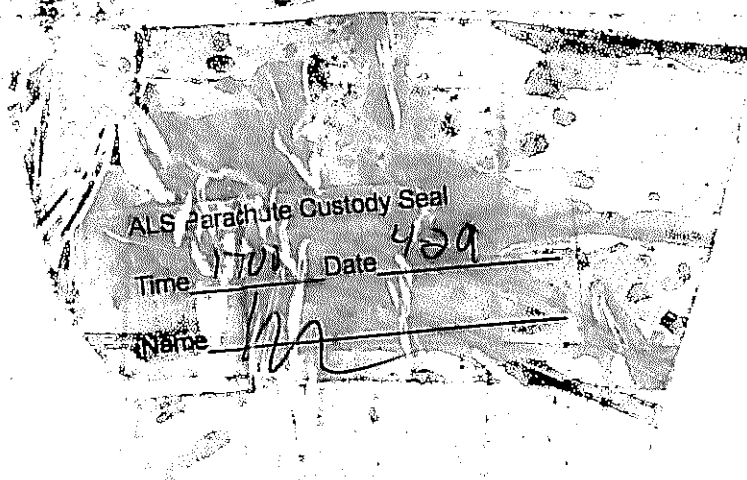
537J125E2/EE4B

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; see current FedEx Service Guide.



Sample Receipt Checklist

Client Name: LTENV-ARVADA CO

Date/Time Received: 01-May-15 10:00

Work Order: 1505056

Received by: DS

Checklist completed by Diane Shaw 01-May-15
eSignature Date

Reviewed by: Chad Whelton 01-May-15
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.8 c</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>5/1/2015 3:52:52 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



22-Jul-2015

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

Re: **Gamma State 14-15D**

Work Order: **1507829**

Dear Brett,

ALS Environmental received 8 samples on 15-Jul-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 38.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Work Order: 1507829

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1507829-01	NW01	Soil		7/14/2015 09:00	7/15/2015 09:30	<input type="checkbox"/>
1507829-02	EW01	Soil		7/14/2015 09:05	7/15/2015 09:30	<input type="checkbox"/>
1507829-03	EW02	Soil		7/14/2015 09:10	7/15/2015 09:30	<input type="checkbox"/>
1507829-04	SW01	Soil		7/14/2015 09:15	7/15/2015 09:30	<input type="checkbox"/>
1507829-05	WW01	Soil		7/14/2015 09:20	7/15/2015 09:30	<input type="checkbox"/>
1507829-06	WW02	Soil		7/14/2015 09:25	7/15/2015 09:30	<input type="checkbox"/>
1507829-07	PB01	Soil		7/14/2015 09:30	7/15/2015 09:30	<input type="checkbox"/>
1507829-08	PB02	Soil		7/14/2015 09:35	7/15/2015 09:30	<input type="checkbox"/>

Client: LT Environmental, Inc.**Project:** Gamma State 14-15D**Work Order:** 1507829**Case Narrative**

Batch 73586, Method SVO_8270_S, Sample 1507829-05B: SVOC surrogate recoveries out due to matrix interference.

Batch 73587, Method DRO_8015_S, Samples 1507829-05B and -07B: DRO surrogate recoveries high due to matrix interference.

Batch 73861, Method CR6_7196_S, Sample 1507829-07B MS/MSD: The MS and MSD recovery was below the lower control limit for Hexavalent Chromium. The corresponding result in the parent sample may be biased low.

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: NW01
Collection Date: 7/14/2015 09:00 AM

Work Order: 1507829
Lab ID: 1507829-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
DRO (C10-C28)	47		4.3	mg/Kg-dry	1	7/17/2015 08:54 PM
Surr: 4-Terphenyl-d14	89.0		39-133	%REC	1	7/17/2015 08:54 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
GRO (C6-C10)	ND		2,700	µg/Kg-dry	1	7/17/2015 05:13 AM
Surr: Toluene-d8	97.3		50-150	%REC	1	7/17/2015 05:13 AM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
Mercury	ND		0.014	mg/Kg-dry	1	7/21/2015 07:59 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Arsenic	2.5		0.35	mg/Kg-dry	1	7/17/2015 01:12 PM
Barium	50		0.35	mg/Kg-dry	1	7/17/2015 01:12 PM
Cadmium	ND		0.71	mg/Kg-dry	1	7/17/2015 01:12 PM
Chromium	4.7		0.35	mg/Kg-dry	1	7/17/2015 01:12 PM
Copper	4.5		0.71	mg/Kg-dry	1	7/17/2015 01:12 PM
Lead	2.1		0.35	mg/Kg-dry	1	7/17/2015 01:12 PM
Nickel	7.4		0.35	mg/Kg-dry	1	7/17/2015 01:12 PM
Selenium	ND		0.71	mg/Kg-dry	1	7/17/2015 01:12 PM
Silver	ND		0.35	mg/Kg-dry	1	7/17/2015 01:12 PM
Zinc	9.6		0.71	mg/Kg-dry	1	7/17/2015 01:12 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	180		5.0	mg/L	10	7/17/2015 03:31 PM
Magnesium	16		2.0	mg/L	10	7/17/2015 03:31 PM
Sodium	73		2.0	mg/L	10	7/17/2015 03:31 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	1.4		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Acenaphthene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Anthracene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Benzo(a)anthracene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Benzo(a)pyrene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Benzo(b)fluoranthene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Benzo(k)fluoranthene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Chrysene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Dibenzo(a,h)anthracene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Fluoranthene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: NW01
Collection Date: 7/14/2015 09:00 AM

Work Order: 1507829
Lab ID: 1507829-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Indeno(1,2,3-cd)pyrene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Naphthalene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Pyrene	ND		0.0069	mg/Kg-dry	1	7/16/2015 09:20 PM
Surr: 2-Fluorobiphenyl	78.9		12-100	%REC	1	7/16/2015 09:20 PM
Surr: 4-Terphenyl-d14	82.9		25-137	%REC	1	7/16/2015 09:20 PM
Surr: Nitrobenzene-d5	85.1		37-107	%REC	1	7/16/2015 09:20 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15		Analyst: LSY
Benzene	ND		0.032	mg/Kg-dry	1	7/20/2015 05:14 AM
Ethylbenzene	ND		0.032	mg/Kg-dry	1	7/20/2015 05:14 AM
m,p-Xylene	ND		0.064	mg/Kg-dry	1	7/20/2015 05:14 AM
o-Xylene	ND		0.032	mg/Kg-dry	1	7/20/2015 05:14 AM
Toluene	ND		0.032	mg/Kg-dry	1	7/20/2015 05:14 AM
Xylenes, Total	ND		0.095	mg/Kg-dry	1	7/20/2015 05:14 AM
Surr: 1,2-Dichloroethane-d4	108		70-130	%REC	1	7/20/2015 05:14 AM
Surr: 4-Bromofluorobenzene	86.3		70-130	%REC	1	7/20/2015 05:14 AM
Surr: Dibromofluoromethane	108		70-130	%REC	1	7/20/2015 05:14 AM
Surr: Toluene-d8	92.1		70-130	%REC	1	7/20/2015 05:14 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15		Analyst: JB
Electrical Conductivity @ Saturation	1.7		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	4.3		0.53	mg/Kg-dry	1	7/22/2015 09:24 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/19/15		Analyst: MB
Chromium, Hexavalent	ND		1.0	mg/Kg-dry	1	7/21/2015 04:00 PM
MOISTURE			E160.3M			Analyst: PT
Moisture	5.7		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15		Analyst: STP
pH	8.2			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: EW01
Collection Date: 7/14/2015 09:05 AM

Work Order: 1507829
Lab ID: 1507829-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
DRO (C10-C28)	64		4.5	mg/Kg-dry	1	7/17/2015 09:54 PM
Surr: 4-Terphenyl-d14	63.5		39-133	%REC	1	7/17/2015 09:54 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
GRO (C6-C10)	ND		2,800	µg/Kg-dry	1	7/17/2015 05:37 AM
Surr: Toluene-d8	97.3		50-150	%REC	1	7/17/2015 05:37 AM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
Mercury	ND		0.014	mg/Kg-dry	1	7/21/2015 08:01 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Arsenic	4.0		0.36	mg/Kg-dry	1	7/17/2015 01:17 PM
Barium	140		0.36	mg/Kg-dry	1	7/17/2015 01:17 PM
Cadmium	ND		0.73	mg/Kg-dry	1	7/17/2015 01:17 PM
Chromium	4.1		0.36	mg/Kg-dry	1	7/17/2015 01:17 PM
Copper	5.6		0.73	mg/Kg-dry	1	7/17/2015 01:17 PM
Lead	2.0		0.36	mg/Kg-dry	1	7/17/2015 01:17 PM
Nickel	8.0		0.36	mg/Kg-dry	1	7/17/2015 01:17 PM
Selenium	ND		0.73	mg/Kg-dry	1	7/17/2015 01:17 PM
Silver	ND		0.36	mg/Kg-dry	1	7/17/2015 01:17 PM
Zinc	9.3		0.73	mg/Kg-dry	1	7/17/2015 01:17 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	130		5.0	mg/L	10	7/17/2015 03:37 PM
Magnesium	11		2.0	mg/L	10	7/17/2015 03:37 PM
Sodium	460		2.0	mg/L	10	7/17/2015 03:37 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	10		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RM
Acenaphthene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Anthracene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Benzo(a)anthracene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Benzo(a)pyrene	0.0080		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Benzo(b)fluoranthene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Benzo(k)fluoranthene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Chrysene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Dibenzo(a,h)anthracene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Fluoranthene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: EW01
Collection Date: 7/14/2015 09:05 AM

Work Order: 1507829
Lab ID: 1507829-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Indeno(1,2,3-cd)pyrene	ND		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Naphthalene	0.012		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Pyrene	0.0087		0.0072	mg/Kg-dry	1	7/16/2015 07:20 PM
Surr: 2-Fluorobiphenyl	55.1		12-100	%REC	1	7/16/2015 07:20 PM
Surr: 4-Terphenyl-d14	76.6		25-137	%REC	1	7/16/2015 07:20 PM
Surr: Nitrobenzene-d5	49.9		37-107	%REC	1	7/16/2015 07:20 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15	Analyst: JNJ	
Benzene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:03 AM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:03 AM
m,p-Xylene	ND		0.067	mg/Kg-dry	1	7/20/2015 02:03 AM
o-Xylene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:03 AM
Toluene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:03 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	7/20/2015 02:03 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	7/20/2015 02:03 AM
Surr: 4-Bromofluorobenzene	97.4		70-130	%REC	1	7/20/2015 02:03 AM
Surr: Dibromofluoromethane	91.7		70-130	%REC	1	7/20/2015 02:03 AM
Surr: Toluene-d8	99.6		70-130	%REC	1	7/20/2015 02:03 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15	Analyst: JB	
Electrical Conductivity @ Saturation	3.5		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	3.7		0.56	mg/Kg-dry	1	7/22/2015 09:24 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/19/15	Analyst: MB	
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	7/21/2015 04:00 PM
MOISTURE			E160.3M	Analyst: PT		
Moisture	11		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15	Analyst: STP	
pH	8.7			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: EW02
Collection Date: 7/14/2015 09:10 AM

Work Order: 1507829
Lab ID: 1507829-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	100		SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	96.4		4.4	mg/Kg-dry	1	7/17/2015 10:24 PM
			39-133	%REC	1	7/17/2015 10:24 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
<i>Surr: Toluene-d8</i>	96.5		2,700	µg/Kg-dry	1	7/17/2015 07:17 AM
			50-150	%REC	1	7/17/2015 07:17 AM
MERCURY BY CVAA						
Mercury	ND		SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
			0.014	mg/Kg-dry	1	7/21/2015 08:04 PM
METALS ANALYSIS BY ICP						
Arsenic	2.9		SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Barium	92		0.42	mg/Kg-dry	1	7/17/2015 01:22 PM
Cadmium	ND		0.42	mg/Kg-dry	1	7/17/2015 01:22 PM
Chromium	5.1		0.84	mg/Kg-dry	1	7/17/2015 01:22 PM
Copper	5.4		0.42	mg/Kg-dry	1	7/17/2015 01:22 PM
Lead	2.4		0.84	mg/Kg-dry	1	7/17/2015 01:22 PM
Nickel	8.2		0.42	mg/Kg-dry	1	7/17/2015 01:22 PM
Selenium	ND		0.42	mg/Kg-dry	1	7/17/2015 01:22 PM
Silver	ND		0.84	mg/Kg-dry	1	7/17/2015 01:22 PM
Zinc	11		0.42	mg/Kg-dry	1	7/17/2015 01:22 PM
SOLUBLE CATIONS FOR SAR						
Calcium	250		SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Magnesium	22		5.0	mg/L	10	7/17/2015 03:43 PM
Sodium	450		2.0	mg/L	10	7/17/2015 03:43 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	7.3		USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
			0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Anthracene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Benzo(a)anthracene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Benzo(a)pyrene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Benzo(b)fluoranthene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Benzo(k)fluoranthene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Chrysene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Dibenzo(a,h)anthracene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Fluoranthene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: EW02
Collection Date: 7/14/2015 09:10 AM

Work Order: 1507829
Lab ID: 1507829-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Indeno(1,2,3-cd)pyrene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Naphthalene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Pyrene	ND		0.0070	mg/Kg-dry	1	7/16/2015 09:42 PM
Surr: 2-Fluorobiphenyl	68.3		12-100	%REC	1	7/16/2015 09:42 PM
Surr: 4-Terphenyl-d14	84.0		25-137	%REC	1	7/16/2015 09:42 PM
Surr: Nitrobenzene-d5	68.4		37-107	%REC	1	7/16/2015 09:42 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15		Analyst: JNJ
Benzene	ND		0.033	mg/Kg-dry	1	7/20/2015 02:29 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	7/20/2015 02:29 AM
m,p-Xylene	ND		0.065	mg/Kg-dry	1	7/20/2015 02:29 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	7/20/2015 02:29 AM
Toluene	ND		0.033	mg/Kg-dry	1	7/20/2015 02:29 AM
Xylenes, Total	ND		0.098	mg/Kg-dry	1	7/20/2015 02:29 AM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	7/20/2015 02:29 AM
Surr: 4-Bromofluorobenzene	94.0		70-130	%REC	1	7/20/2015 02:29 AM
Surr: Dibromofluoromethane	92.7		70-130	%REC	1	7/20/2015 02:29 AM
Surr: Toluene-d8	99.2		70-130	%REC	1	7/20/2015 02:29 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15		Analyst: JB
Electrical Conductivity @ Saturation	4.1		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	4.5		0.54	mg/Kg-dry	1	7/22/2015 09:24 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/19/15		Analyst: MB
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	7/21/2015 04:00 PM
MOISTURE			E160.3M			Analyst: PT
Moisture	8.2		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15		Analyst: STP
pH	8.4			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: SW01
Collection Date: 7/14/2015 09:15 AM

Work Order: 1507829
Lab ID: 1507829-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	36		SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	60.2		4.8	mg/Kg-dry	1	7/17/2015 10:54 PM
			39-133	%REC	1	7/17/2015 10:54 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
<i>Surr: Toluene-d8</i>	97.1		2,900	µg/Kg-dry	1	7/17/2015 07:41 AM
			50-150	%REC	1	7/17/2015 07:41 AM
MERCURY BY CVAA						
Mercury	ND		SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
			0.015	mg/Kg-dry	1	7/21/2015 08:06 PM
METALS ANALYSIS BY ICP						
Arsenic	4.5		SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Barium	120		0.43	mg/Kg-dry	1	7/17/2015 01:35 PM
Cadmium	ND		0.43	mg/Kg-dry	1	7/17/2015 01:35 PM
Chromium	7.9		0.86	mg/Kg-dry	1	7/17/2015 01:35 PM
Copper	5.0		0.43	mg/Kg-dry	1	7/17/2015 01:35 PM
Lead	3.4		0.86	mg/Kg-dry	1	7/17/2015 01:35 PM
Nickel	11		0.43	mg/Kg-dry	1	7/17/2015 01:35 PM
Selenium	ND		0.86	mg/Kg-dry	1	7/17/2015 01:35 PM
Silver	ND		0.43	mg/Kg-dry	1	7/17/2015 01:35 PM
Zinc	15		0.86	mg/Kg-dry	1	7/17/2015 01:35 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	110		5.0	mg/L	10	7/17/2015 04:05 PM
Magnesium	18		2.0	mg/L	10	7/17/2015 04:05 PM
Sodium	110		2.0	mg/L	10	7/17/2015 04:05 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	2.6		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Acenaphthene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Anthracene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Benzo(a)anthracene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Benzo(a)pyrene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Benzo(b)fluoranthene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Benzo(k)fluoranthene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Chrysene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Dibenzo(a,h)anthracene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Fluoranthene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: SW01
Collection Date: 7/14/2015 09:15 AM

Work Order: 1507829
Lab ID: 1507829-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Indeno(1,2,3-cd)pyrene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Naphthalene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Pyrene	ND		0.0076	mg/Kg-dry	1	7/16/2015 10:05 PM
Surr: 2-Fluorobiphenyl	71.5		12-100	%REC	1	7/16/2015 10:05 PM
Surr: 4-Terphenyl-d14	76.6		25-137	%REC	1	7/16/2015 10:05 PM
Surr: Nitrobenzene-d5	73.2		37-107	%REC	1	7/16/2015 10:05 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15	Analyst: JNJ	
Benzene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:54 AM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:54 AM
m,p-Xylene	ND		0.069	mg/Kg-dry	1	7/20/2015 02:54 AM
o-Xylene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:54 AM
Toluene	ND		0.034	mg/Kg-dry	1	7/20/2015 02:54 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	7/20/2015 02:54 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	7/20/2015 02:54 AM
Surr: 4-Bromofluorobenzene	96.9		70-130	%REC	1	7/20/2015 02:54 AM
Surr: Dibromofluoromethane	91.4		70-130	%REC	1	7/20/2015 02:54 AM
Surr: Toluene-d8	102		70-130	%REC	1	7/20/2015 02:54 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15	Analyst: JB	
Electrical Conductivity @ Saturation	1.5		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	7.5		0.57	mg/Kg-dry	1	7/22/2015 09:24 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/19/15	Analyst: MB	
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	7/21/2015 04:00 PM
MOISTURE			E160.3M	Analyst: PT		
Moisture	12		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15	Analyst: STP	
pH	8.5		s.u.		1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: WW01
Collection Date: 7/14/2015 09:20 AM

Work Order: 1507829
Lab ID: 1507829-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
DRO (C10-C28)	7,500		46	mg/Kg-dry	10	7/21/2015 07:00 AM
Surr: 4-Terphenyl-d14	358	S	39-133	%REC	10	7/21/2015 07:00 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
GRO (C6-C10)	ND		2,800	µg/Kg-dry	1	7/17/2015 06:23 PM
Surr: Toluene-d8	96.3		50-150	%REC	1	7/17/2015 06:23 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
Mercury	0.020		0.015	mg/Kg-dry	1	7/21/2015 08:08 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Arsenic	5.2		0.43	mg/Kg-dry	1	7/17/2015 02:08 PM
Barium	340		0.43	mg/Kg-dry	1	7/17/2015 02:08 PM
Cadmium	ND		0.87	mg/Kg-dry	1	7/17/2015 02:08 PM
Chromium	6.4		0.43	mg/Kg-dry	1	7/17/2015 02:08 PM
Copper	6.3		0.87	mg/Kg-dry	1	7/17/2015 02:08 PM
Lead	4.5		0.43	mg/Kg-dry	1	7/17/2015 02:08 PM
Nickel	13		0.43	mg/Kg-dry	1	7/17/2015 02:08 PM
Selenium	ND		0.87	mg/Kg-dry	1	7/17/2015 02:08 PM
Silver	ND		0.43	mg/Kg-dry	1	7/17/2015 02:08 PM
Zinc	19		0.87	mg/Kg-dry	1	7/17/2015 02:08 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	750		5.0	mg/L	10	7/17/2015 04:11 PM
Magnesium	98		2.0	mg/L	10	7/17/2015 04:11 PM
Sodium	460		2.0	mg/L	10	7/17/2015 04:11 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	4.2		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Acenaphthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Anthracene	0.021		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Benzo(a)anthracene	0.020		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Benzo(a)pyrene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Benzo(b)fluoranthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Benzo(k)fluoranthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Chrysene	0.014		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Dibenzo(a,h)anthracene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Fluoranthene	0.018		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: WW01
Collection Date: 7/14/2015 09:20 AM

Work Order: 1507829
Lab ID: 1507829-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Indeno(1,2,3-cd)pyrene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Naphthalene	0.092		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Pyrene	0.025		0.0073	mg/Kg-dry	1	7/16/2015 10:27 PM
Surr: 2-Fluorobiphenyl	9.76	S	12-100	%REC	1	7/16/2015 10:27 PM
Surr: 4-Terphenyl-d14	80.9		25-137	%REC	1	7/16/2015 10:27 PM
Surr: Nitrobenzene-d5	77.7		37-107	%REC	1	7/16/2015 10:27 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15	Analyst: LSY	
Benzene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:05 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:05 AM
m,p-Xylene	ND		0.067	mg/Kg-dry	1	7/20/2015 06:05 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:05 AM
Toluene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:05 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	7/20/2015 06:05 AM
Surr: 1,2-Dichloroethane-d4	107		70-130	%REC	1	7/20/2015 06:05 AM
Surr: 4-Bromofluorobenzene	95.1		70-130	%REC	1	7/20/2015 06:05 AM
Surr: Dibromofluoromethane	106		70-130	%REC	1	7/20/2015 06:05 AM
Surr: Toluene-d8	95.2		70-130	%REC	1	7/20/2015 06:05 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15	Analyst: JB	
Electrical Conductivity @ Saturation	8.0		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	6.4		0.55	mg/Kg-dry	1	7/22/2015 09:24 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/19/15	Analyst: MB	
Chromium, Hexavalent	ND		1.0	mg/Kg-dry	1	7/21/2015 04:00 PM
MOISTURE			E160.3M	Analyst: PT		
Moisture	9.8		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15	Analyst: STP	
pH	7.8			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: WW02
Collection Date: 7/14/2015 09:25 AM

Work Order: 1507829
Lab ID: 1507829-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
DRO (C10-C28)	2,600		45	mg/Kg-dry	10	7/21/2015 07:30 AM
Surr: 4-Terphenyl-d14	74.6		39-133	%REC	10	7/21/2015 07:30 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
GRO (C6-C10)	ND		2,800	µg/Kg-dry	1	7/17/2015 08:29 AM
Surr: Toluene-d8	97.8		50-150	%REC	1	7/17/2015 08:29 AM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
Mercury	0.022		0.014	mg/Kg-dry	1	7/21/2015 08:11 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Arsenic	3.3		0.42	mg/Kg-dry	1	7/17/2015 02:13 PM
Barium	310		0.42	mg/Kg-dry	1	7/17/2015 02:13 PM
Cadmium	ND		0.85	mg/Kg-dry	1	7/17/2015 02:13 PM
Chromium	6.1		0.42	mg/Kg-dry	1	7/17/2015 02:13 PM
Copper	5.6		0.85	mg/Kg-dry	1	7/17/2015 02:13 PM
Lead	3.2		0.42	mg/Kg-dry	1	7/17/2015 02:13 PM
Nickel	12		0.42	mg/Kg-dry	1	7/17/2015 02:13 PM
Selenium	ND		0.85	mg/Kg-dry	1	7/17/2015 02:13 PM
Silver	ND		0.42	mg/Kg-dry	1	7/17/2015 02:13 PM
Zinc	14		0.85	mg/Kg-dry	1	7/17/2015 02:13 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	410		5.0	mg/L	10	7/17/2015 04:16 PM
Magnesium	36		2.0	mg/L	10	7/17/2015 04:16 PM
Sodium	210		2.0	mg/L	10	7/17/2015 04:16 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	2.7		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Acenaphthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Anthracene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Benzo(a)anthracene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Benzo(a)pyrene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Benzo(b)fluoranthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Benzo(k)fluoranthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Chrysene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Dibenzo(a,h)anthracene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Fluoranthene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: WW02
Collection Date: 7/14/2015 09:25 AM

Work Order: 1507829
Lab ID: 1507829-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	0.024		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Indeno(1,2,3-cd)pyrene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Naphthalene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Pyrene	ND		0.0073	mg/Kg-dry	1	7/16/2015 10:49 PM
Surr: 2-Fluorobiphenyl	67.0		12-100	%REC	1	7/16/2015 10:49 PM
Surr: 4-Terphenyl-d14	78.6		25-137	%REC	1	7/16/2015 10:49 PM
Surr: Nitrobenzene-d5	69.6		37-107	%REC	1	7/16/2015 10:49 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15		Analyst: LSY
Benzene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:31 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:31 AM
m,p-Xylene	ND		0.067	mg/Kg-dry	1	7/20/2015 06:31 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:31 AM
Toluene	ND		0.033	mg/Kg-dry	1	7/20/2015 06:31 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	7/20/2015 06:31 AM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	7/20/2015 06:31 AM
Surr: 4-Bromofluorobenzene	93.4		70-130	%REC	1	7/20/2015 06:31 AM
Surr: Dibromofluoromethane	107		70-130	%REC	1	7/20/2015 06:31 AM
Surr: Toluene-d8	97.2		70-130	%REC	1	7/20/2015 06:31 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15		Analyst: JB
Electrical Conductivity @ Saturation	4.3		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	6.1		0.56	mg/Kg-dry	1	7/22/2015 09:24 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/19/15		Analyst: MB
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	7/21/2015 04:00 PM
MOISTURE			E160.3M			Analyst: PT
Moisture	10		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15		Analyst: STP
pH	8.0			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: PB01
Collection Date: 7/14/2015 09:30 AM

Work Order: 1507829
Lab ID: 1507829-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	1,200		SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>148</i>	<i>S</i>	<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>7/18/2015 12:24 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>96.1</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>7/17/2015 08:05 AM</i>
MERCURY BY CVAA						
Mercury	0.019		SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
			0.014	mg/Kg-dry	1	7/20/2015 04:36 PM
METALS ANALYSIS BY ICP						
Arsenic	2.7		SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Barium	110		0.41	mg/Kg-dry	1	7/17/2015 02:19 PM
Cadmium	ND		0.41	mg/Kg-dry	1	7/17/2015 02:19 PM
Chromium	4.8		0.81	mg/Kg-dry	1	7/17/2015 02:19 PM
Copper	4.8		0.41	mg/Kg-dry	1	7/17/2015 02:19 PM
Lead	2.2		0.41	mg/Kg-dry	1	7/17/2015 02:19 PM
Nickel	12		0.41	mg/Kg-dry	1	7/17/2015 02:19 PM
Selenium	ND		0.81	mg/Kg-dry	1	7/17/2015 02:19 PM
Silver	ND		0.41	mg/Kg-dry	1	7/17/2015 02:19 PM
Zinc	11		0.81	mg/Kg-dry	1	7/17/2015 02:19 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	250		5.0	mg/L	10	7/17/2015 04:22 PM
Magnesium	11		2.0	mg/L	10	7/17/2015 04:22 PM
Sodium	500		2.0	mg/L	10	7/17/2015 04:22 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	8.4		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Acenaphthene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Anthracene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Benzo(a)anthracene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Benzo(a)pyrene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Benzo(b)fluoranthene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Benzo(k)fluoranthene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Chrysene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Dibenzo(a,h)anthracene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Fluoranthene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: PB01
Collection Date: 7/14/2015 09:30 AM

Work Order: 1507829
Lab ID: 1507829-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	0.019		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Indeno(1,2,3-cd)pyrene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Naphthalene	0.010		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Pyrene	ND		0.0071	mg/Kg-dry	1	7/16/2015 11:11 PM
Surr: 2-Fluorobiphenyl	62.6		12-100	%REC	1	7/16/2015 11:11 PM
Surr: 4-Terphenyl-d14	78.3		25-137	%REC	1	7/16/2015 11:11 PM
Surr: Nitrobenzene-d5	66.3		37-107	%REC	1	7/16/2015 11:11 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15		Analyst: LSY
Benzene	ND		0.033	mg/Kg-dry	1	7/20/2015 05:40 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	7/20/2015 05:40 AM
m,p-Xylene	ND		0.066	mg/Kg-dry	1	7/20/2015 05:40 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	7/20/2015 05:40 AM
Toluene	ND		0.033	mg/Kg-dry	1	7/20/2015 05:40 AM
Xylenes, Total	ND		0.099	mg/Kg-dry	1	7/20/2015 05:40 AM
Surr: 1,2-Dichloroethane-d4	109		70-130	%REC	1	7/20/2015 05:40 AM
Surr: 4-Bromofluorobenzene	88.7		70-130	%REC	1	7/20/2015 05:40 AM
Surr: Dibromofluoromethane	110		70-130	%REC	1	7/20/2015 05:40 AM
Surr: Toluene-d8	94.3		70-130	%REC	1	7/20/2015 05:40 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15		Analyst: JB
Electrical Conductivity @ Saturation	4.7		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JB
Chromium, Trivalent	4.3		0.55	mg/Kg-dry	1	7/22/2015 01:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/20/15		Analyst: MB
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	7/22/2015 10:15 AM
MOISTURE			E160.3M			Analyst: PT
Moisture	8.8		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15		Analyst: STP
pH	8.3			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: PB02
Collection Date: 7/14/2015 09:35 AM

Work Order: 1507829
Lab ID: 1507829-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 7/16/15	Analyst: IT
DRO (C10-C28)	5,700		47	mg/Kg-dry	10	7/21/2015 08:00 AM
Surr: 4-Terphenyl-d14	101		39-133	%REC	10	7/21/2015 08:00 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 7/15/15	Analyst: IT
GRO (C6-C10)	ND		2,800	µg/Kg-dry	1	7/17/2015 06:48 PM
Surr: Toluene-d8	89.7		50-150	%REC	1	7/17/2015 06:48 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 7/20/15	Analyst: LR
Mercury	0.024		0.014	mg/Kg-dry	1	7/21/2015 08:13 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 7/16/15	Analyst: JEC
Arsenic	4.8		0.40	mg/Kg-dry	1	7/17/2015 02:24 PM
Barium	290		0.40	mg/Kg-dry	1	7/17/2015 02:24 PM
Cadmium	ND		0.79	mg/Kg-dry	1	7/17/2015 02:24 PM
Chromium	6.8		0.40	mg/Kg-dry	1	7/17/2015 02:24 PM
Copper	8.4		0.79	mg/Kg-dry	1	7/17/2015 02:24 PM
Lead	5.7		0.40	mg/Kg-dry	1	7/17/2015 02:24 PM
Nickel	13		0.40	mg/Kg-dry	1	7/17/2015 02:24 PM
Selenium	1.3		0.79	mg/Kg-dry	1	7/17/2015 02:24 PM
Silver	ND		0.40	mg/Kg-dry	1	7/17/2015 02:24 PM
Zinc	25		0.79	mg/Kg-dry	1	7/17/2015 02:24 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/17/15	Analyst: JEC
Calcium	970		5.0	mg/L	10	7/17/2015 04:28 PM
Magnesium	78		2.0	mg/L	10	7/17/2015 04:28 PM
Sodium	640		2.0	mg/L	10	7/17/2015 04:28 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/17/15	Analyst: RH
Sodium Adsorption Ratio	5.3		0.010	none	1	7/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 7/16/15	Analyst: RS
Acenaphthene	ND		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Anthracene	0.016		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Benzo(a)anthracene	0.012		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Benzo(a)pyrene	0.021		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Benzo(b)fluoranthene	0.028		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Benzo(k)fluoranthene	0.014		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Chrysene	0.036		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Dibenzo(a,h)anthracene	0.022		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Fluoranthene	0.029		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Project: Gamma State 14-15D
Sample ID: PB02
Collection Date: 7/14/2015 09:35 AM

Work Order: 1507829
Lab ID: 1507829-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Indeno(1,2,3-cd)pyrene	0.020		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Naphthalene	0.23		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Pyrene	0.041		0.0074	mg/Kg-dry	1	7/16/2015 11:33 PM
Surr: 2-Fluorobiphenyl	14.0		12-100	%REC	1	7/16/2015 11:33 PM
Surr: 4-Terphenyl-d14	85.7		25-137	%REC	1	7/16/2015 11:33 PM
Surr: Nitrobenzene-d5	82.7		37-107	%REC	1	7/16/2015 11:33 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 7/15/15		Analyst: LSY
Benzene	ND		0.034	mg/Kg-dry	1	7/20/2015 06:56 AM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	7/20/2015 06:56 AM
m,p-Xylene	0.11		0.067	mg/Kg-dry	1	7/20/2015 06:56 AM
o-Xylene	0.041		0.034	mg/Kg-dry	1	7/20/2015 06:56 AM
Toluene	0.034		0.034	mg/Kg-dry	1	7/20/2015 06:56 AM
Xylenes, Total	0.15		0.10	mg/Kg-dry	1	7/20/2015 06:56 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	7/20/2015 06:56 AM
Surr: 4-Bromofluorobenzene	95.1		70-130	%REC	1	7/20/2015 06:56 AM
Surr: Dibromofluoromethane	105		70-130	%REC	1	7/20/2015 06:56 AM
Surr: Toluene-d8	95.6		70-130	%REC	1	7/20/2015 06:56 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 7/17/15		Analyst: JB
Electrical Conductivity @ Saturation	11		0.050	mmhos/cm @2	10	7/20/2015 10:45 AM
CHROMIUM, TRIVALENT			CALCULATION	Prep: SW3060A / 7/20/15		Analyst: JB
Chromium, Trivalent	6.4		0.56	mg/Kg-dry	1	7/22/2015 01:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 7/20/15		Analyst: MB
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	7/22/2015 10:15 AM
MOISTURE			E160.3M	Prep: EXTRACT / 7/16/15		Analyst: PT
Moisture	11		0.050	% of sample	1	7/16/2015 03:25 PM
PH			SW9045D	Prep: EXTRACT / 7/16/15		Analyst: STP
pH	8.2			s.u.	1	7/16/2015 01:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Jul-15

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73587** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-73587-73587				Units: mg/Kg		Analysis Date: 7/17/2015 03:39 AM		
Client ID:		Run ID: GC8_150716A				SeqNo: 3374591		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) ND 5.0
Surr: 4-Terphenyl-d14 1.518 0 2 0 75.9 39-133 0

LCS		Sample ID: DLCSS1-73587-73587				Units: mg/Kg		Analysis Date: 7/17/2015 04:09 AM		
Client ID:		Run ID: GC8_150716A				SeqNo: 3374593		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 159.4 5.0 200 0 79.7 61-109 0
Surr: 4-Terphenyl-d14 1.474 0 2 0 73.7 39-133 0

MS		Sample ID: 1507832-05B MS				Units: mg/Kg		Analysis Date: 7/17/2015 04:39 AM		
Client ID:		Run ID: GC8_150716A				SeqNo: 3374595		Prep Date: 7/16/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 808.1 78 313.3 705.8 32.6 48-110 0 S
Surr: 4-Terphenyl-d14 2.394 0 3.133 0 76.4 39-133 0

MSD		Sample ID: 1507832-05B MSD				Units: mg/Kg		Analysis Date: 7/17/2015 05:09 AM		
Client ID:		Run ID: GC8_150716A				SeqNo: 3374597		Prep Date: 7/16/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 831.8 82 328.9 705.8 38.3 48-110 808.1 2.89 30 S
Surr: 4-Terphenyl-d14 2.322 0 3.289 0 70.6 39-133 2.394 3.03 30

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
 Work Order: 1507829
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73568** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: MBLK-73568-73568				Units: µg/Kg		Analysis Date: 7/16/2015 06:17 PM		
Client ID:		Run ID: GC10_150716A				SeqNo: 3374365		Prep Date: 7/15/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4707	0	5000	0	94.1	50-150	0			

LCS		Sample ID: LCS-73568-73568				Units: µg/Kg		Analysis Date: 7/16/2015 05:52 PM		
Client ID:		Run ID: GC10_150716A				SeqNo: 3374364		Prep Date: 7/15/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	563700	2,500	500000	0	113	70-130	0			
Surr: Toluene-d8	4670	0	5000	0	93.4	50-150	0			

MS		Sample ID: 1507832-05A MS				Units: µg/Kg		Analysis Date: 7/16/2015 09:09 PM		
Client ID:		Run ID: GC10_150716A				SeqNo: 3374375		Prep Date: 7/15/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	651500	2,500	500000	0	130	70-130	0			S
Surr: Toluene-d8	4921	0	5000	0	98.4	50-150	0			

MSD		Sample ID: 1507832-05A MSD				Units: µg/Kg		Analysis Date: 7/16/2015 09:33 PM		
Client ID:		Run ID: GC10_150716A				SeqNo: 3374376		Prep Date: 7/15/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	599600	2,500	500000	0	120	70-130	651500	8.29	30	
Surr: Toluene-d8	4812	0	5000	0	96.2	50-150	4921	2.23	30	

The following samples were analyzed in this batch:

1507829-01A	1507829-02A	1507829-03A
1507829-04A	1507829-05A	1507829-06A
1507829-07A	1507829-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73705** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-73705-73705				Units: mg/Kg		Analysis Date: 7/20/2015 04:26 PM		
Client ID:		Run ID: HG1_150720A				SeqNo: 3377639		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-73705-73705				Units: mg/Kg		Analysis Date: 7/20/2015 04:29 PM		
Client ID:		Run ID: HG1_150720A				SeqNo: 3377640		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1802 0.020 0.1665 0 108 80-120 0

MS		Sample ID: 1507829-07BMS				Units: mg/Kg		Analysis Date: 7/20/2015 04:38 PM		
Client ID: PB01		Run ID: HG1_150720A				SeqNo: 3377644		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1386 0.013 0.1105 0.01752 110 75-125 0

MSD		Sample ID: 1507829-07BMSD				Units: mg/Kg		Analysis Date: 7/20/2015 04:40 PM		
Client ID: PB01		Run ID: HG1_150720A				SeqNo: 3377645		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1368 0.013 0.1087 0.01752 110 75-125 0.1386 1.29 35

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: 73603 Instrument ID SAR Method: USDA H60 Metho

DUP		Sample ID: 1507789-03BDUP				Units: none		Analysis Date: 7/17/2015		
Client ID:		Run ID: SAR_150717A				SeqNo: 3379441		Prep Date: 7/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.1449	0.010	0	0	0			0		

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73613** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-73613-73613				Units: mg/Kg		Analysis Date: 7/17/2015 10:39 AM		
Client ID:		Run ID: ICP2_150717A				SeqNo: 3377041		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	0.01275	0.25								J
Copper	0.04738	0.50								J
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								

MBLK		Sample ID: MBLK-73613-73613				Units: mg/Kg		Analysis Date: 7/20/2015 05:21 PM		
Client ID:		Run ID: ICP2_150720A				SeqNo: 3378053		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	ND	0.50								

LCS		Sample ID: LCS-73613-73613				Units: mg/Kg		Analysis Date: 7/17/2015 10:45 AM		
Client ID:		Run ID: ICP2_150717A				SeqNo: 3377042		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.985	0.25	5	0	99.7	80-120	0			
Barium	5.061	0.25	5	0	101	80-120	0			
Cadmium	4.609	0.50	5	0	92.2	80-120	0			
Chromium	5.189	0.25	5	0	104	80-120	0			
Copper	5.157	0.50	5	0	103	80-120	0			
Lead	4.962	0.25	5	0	99.2	80-120	0			
Nickel	5.245	0.25	5	0	105	80-120	0			
Selenium	5.116	0.50	5	0	102	80-120	0			
Silver	4.852	0.25	5	0	97	80-120	0			
Zinc	4.823	0.50	5	0	96.5	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73613** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: 1507708-02AMS				Units: mg/Kg		Analysis Date: 7/17/2015 11:02 AM				
Client ID:		Run ID: ICP2_150717A		SeqNo: 3377045		Prep Date: 7/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	167.9	0.33	6.684	159	134	75-125	0			SO
Cadmium	18.21	0.67	6.684	10.9	109	75-125	0			
Chromium	44.83	0.33	6.684	39.04	86.7	75-125	0			O
Copper	124.3	0.67	6.684	116.7	113	75-125	0			O
Nickel	43.98	0.33	6.684	38.28	85.2	75-125	0			O
Silver	14.71	0.33	6.684	6.754	119	75-125	0			E

MS Sample ID: 1507708-02AMS				Units: mg/Kg		Analysis Date: 7/20/2015 05:38 PM				
Client ID:		Run ID: ICP2_150720A		SeqNo: 3378056		Prep Date: 7/16/2015		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	79.44	3.3	6.684	78.45	14.8	75-125	0			SO
Lead	205.2	3.3	6.684	211	-85.7	75-125	0			SO
Selenium	8.066	6.7	6.684	1.12	104	75-125	0			
Zinc	1276	6.7	6.684	1348	-1080	75-125	0			SO

MSD Sample ID: 1507708-02AMSD				Units: mg/Kg		Analysis Date: 7/17/2015 11:08 AM				
Client ID:		Run ID: ICP2_150717A		SeqNo: 3377046		Prep Date: 7/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	171.7	0.33	6.684	159	190	75-125	167.9	2.22	20	SO
Cadmium	18.79	0.67	6.684	10.9	118	75-125	18.21	3.16	20	
Chromium	45.76	0.33	6.684	39.04	101	75-125	44.83	2.03	20	O
Copper	127.3	0.67	6.684	116.7	158	75-125	124.3	2.36	20	SO
Nickel	44.9	0.33	6.684	38.28	99.1	75-125	43.98	2.09	20	O
Silver	15.23	0.33	6.684	6.754	127	75-125	14.71	3.53	20	SE

MSD Sample ID: 1507708-02AMSD				Units: mg/Kg		Analysis Date: 7/20/2015 05:44 PM				
Client ID:		Run ID: ICP2_150720A		SeqNo: 3378057		Prep Date: 7/16/2015		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	83.91	3.3	6.684	78.45	81.6	75-125	79.44	5.47	20	O
Lead	213.1	3.3	6.684	211	31.4	75-125	205.2	3.74	20	SO
Selenium	8.087	6.7	6.684	1.12	104	75-125	8.066	0.257	20	
Zinc	1344	6.7	6.684	1348	-53.4	75-125	1276	5.23	20	SO

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73586** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-73586-73586				Units: µg/Kg		Analysis Date: 7/16/2015 05:00 PM		
Client ID:		Run ID: SVMS8_150716A				SeqNo: 3374794		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1094	0	1667	0	65.6	12-100	0			
Surr: 4-Terphenyl-d14	1212	0	1667	0	72.7	25-137	0			
Surr: Nitrobenzene-d5	1012	0	1667	0	60.7	37-107	0			

LCS		Sample ID: SLCSS1-73586-73586				Units: µg/Kg		Analysis Date: 7/16/2015 05:20 PM		
Client ID:		Run ID: SVMS8_150716A				SeqNo: 3374795		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	527.3	6.7	666.7	0	79.1	45-110	0			
Anthracene	586.7	6.7	666.7	0	88	55-105	0			
Benzo(a)anthracene	576	6.7	666.7	0	86.4	50-110	0			
Benzo(a)pyrene	576	6.7	666.7	0	86.4	50-110	0			
Benzo(b)fluoranthene	547.7	6.7	666.7	0	82.1	45-115	0			
Benzo(k)fluoranthene	551.7	6.7	666.7	0	82.7	45-115	0			
Chrysene	547.7	6.7	666.7	0	82.1	55-110	0			
Dibenzo(a,h)anthracene	619.3	6.7	666.7	0	92.9	40-125	0			
Fluoranthene	632	6.7	666.7	0	94.8	55-115	0			
Fluorene	547.3	6.7	666.7	0	82.1	50-110	0			
Indeno(1,2,3-cd)pyrene	644	6.7	666.7	0	96.6	40-120	0			
Naphthalene	374.3	6.7	666.7	0	56.1	40-105	0			
Pyrene	563	6.7	666.7	0	84.4	45-125	0			
Surr: 2-Fluorobiphenyl	1185	0	1667	0	71.1	12-100	0			
Surr: 4-Terphenyl-d14	1247	0	1667	0	74.8	25-137	0			
Surr: Nitrobenzene-d5	1104	0	1667	0	66.3	37-107	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
 Work Order: 1507829
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: 73586 Instrument ID SVMS8 Method: SW846 8270D

MS				Sample ID: 1507829-02B MS			Units: µg/Kg		Analysis Date: 7/16/2015 06:40 PM	
Client ID: EW01				Run ID: SVMS8_150716A			SeqNo: 3374796		Prep Date: 7/16/2015	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1040	13	1277	0	81.4	45-110	0			
Anthracene	1160	13	1277	0	90.8	55-105	0			
Benzo(a)anthracene	1128	13	1277	6.135	87.8	50-110	0			
Benzo(a)pyrene	1125	13	1277	7.104	87.5	50-110	0			
Benzo(b)fluoranthene	1100	13	1277	4.844	85.7	45-115	0			
Benzo(k)fluoranthene	1057	13	1277	3.552	82.5	45-115	0			
Chrysene	1070	13	1277	3.552	83.5	55-110	0			
Dibenzo(a,h)anthracene	1166	13	1277	0	91.3	40-125	0			
Fluoranthene	1167	13	1277	5.167	91	55-115	0			
Fluorene	1054	13	1277	4.844	82.1	50-110	0			
Indeno(1,2,3-cd)pyrene	1271	13	1277	6.135	99	40-120	0			
Naphthalene	715.2	13	1277	10.98	55.1	40-105	0			
Pyrene	1189	13	1277	7.75	92.5	45-125	0			
Surr: 2-Fluorobiphenyl	2247	0	3193	0	70.4	12-100	0			
Surr: 4-Terphenyl-d14	2556	0	3193	0	80.1	25-137	0			
Surr: Nitrobenzene-d5	2110	0	3193	0	66.1	37-107	0			

MSD				Sample ID: 1507829-02B MSD			Units: µg/Kg		Analysis Date: 7/16/2015 07:00 PM	
Client ID: EW01				Run ID: SVMS8_150716A			SeqNo: 3374797		Prep Date: 7/16/2015	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1031	13	1277	0	80.7	45-110	1040	0.789	30	
Anthracene	1163	13	1277	0	91	55-105	1160	0.288	30	
Benzo(a)anthracene	1119	13	1277	6.135	87.1	50-110	1128	0.783	30	
Benzo(a)pyrene	1117	13	1277	7.104	86.9	50-110	1125	0.728	30	
Benzo(b)fluoranthene	1040	13	1277	4.844	81.1	45-115	1100	5.54	30	
Benzo(k)fluoranthene	1033	13	1277	3.552	80.6	45-115	1057	2.25	30	
Chrysene	1047	13	1277	3.552	81.7	55-110	1070	2.1	30	
Dibenzo(a,h)anthracene	1206	13	1277	0	94.4	40-125	1166	3.4	30	
Fluoranthene	1174	13	1277	5.167	91.5	55-115	1167	0.613	30	
Fluorene	1039	13	1277	4.844	81	50-110	1054	1.39	30	
Indeno(1,2,3-cd)pyrene	1297	13	1277	6.135	101	40-120	1271	2.05	30	
Naphthalene	705	13	1277	10.98	54.3	40-105	715.2	1.43	30	
Pyrene	1161	13	1277	7.75	90.3	45-125	1189	2.38	30	
Surr: 2-Fluorobiphenyl	2170	0	3193	0	68	12-100	2247	3.49	40	
Surr: 4-Terphenyl-d14	2527	0	3193	0	79.1	25-137	2556	1.14	40	
Surr: Nitrobenzene-d5	2037	0	3193	0	63.8	37-107	2110	3.53	40	

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73573** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-73573-73573				Units: µg/Kg			Analysis Date: 7/16/2015 09:34 PM			
Client ID:				Run ID: VMS9_150716B				SeqNo: 3374515			Prep Date: 7/15/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	ND	30												
Ethylbenzene	ND	30												
m,p-Xylene	ND	60												
o-Xylene	ND	30												
Toluene	ND	30												
Xylenes, Total	ND	90												
Surr: 1,2-Dichloroethane-d4	1056	0	1000	0	106	70-130		0						
Surr: 4-Bromofluorobenzene	946.5	0	1000	0	94.6	70-130		0						
Surr: Dibromofluoromethane	1022	0	1000	0	102	70-130		0						
Surr: Toluene-d8	966.5	0	1000	0	96.6	70-130		0						

LCS				Sample ID: LCS-73573-73573				Units: µg/Kg			Analysis Date: 7/16/2015 07:52 PM			
Client ID:				Run ID: VMS9_150716B				SeqNo: 3374514			Prep Date: 7/15/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	851	30	1000	0	85.1	75-125	0							
Ethylbenzene	846	30	1000	0	84.6	75-125	0							
m,p-Xylene	1715	60	2000	0	85.8	80-125	0							
o-Xylene	843	30	1000	0	84.3	75-125	0							
Toluene	816	30	1000	0	81.6	70-125	0							
Xylenes, Total	2558	90	3000	0	85.3	75-125	0							
Surr: 1,2-Dichloroethane-d4	980.5	0	1000	0	98	70-130	0							
Surr: 4-Bromofluorobenzene	1003	0	1000	0	100	70-130	0							
Surr: Dibromofluoromethane	996.5	0	1000	0	99.6	70-130	0							
Surr: Toluene-d8	1004	0	1000	0	100	70-130	0							

MS				Sample ID: 1507829-03A MS		Units: µg/Kg		Analysis Date: 7/20/2015 03:19 AM		
Client ID: EW02			Run ID: VMS6_150718B			SeqNo: 3377249		Prep Date: 7/15/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1182	30	1000	0	118	75-125	0			
Ethylbenzene	1100	30	1000	0	110	75-125	0			
m,p-Xylene	2210	60	2000	0	110	80-125	0			
o-Xylene	1094	30	1000	0	109	75-125	0			
Toluene	1136	30	1000	0	114	70-125	0			
Xylenes, Total	3304	90	3000	0	110	75-125	0			
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130	0			
Surr: 4-Bromofluorobenzene	1011	0	1000	0	101	70-130	0			
Surr: Dibromofluoromethane	987.5	0	1000	0	98.8	70-130	0			
Surr: Toluene-d8	1002	0	1000	0	100	70-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73573** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1507829-03A MSD			Units: µg/Kg		Analysis Date: 7/20/2015 03:44 AM		
Client ID: EW02				Run ID: VMS6_150718B			SeqNo: 3377250		Prep Date: 7/15/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1125	30	1000	0	112	75-125	1182	4.9	30		
Ethylbenzene	1086	30	1000	0	109	75-125	1100	1.28	30		
m,p-Xylene	2210	60	2000	0	110	80-125	2210	0.0226	30		
o-Xylene	1088	30	1000	0	109	75-125	1094	0.458	30		
Toluene	1120	30	1000	0	112	70-125	1136	1.42	30		
Xylenes, Total	3298	90	3000	0	110	75-125	3304	0.167	30		
Surr: 1,2-Dichloroethane-d4	1025	0	1000	0	102	70-130	1044	1.79	30		
Surr: 4-Bromofluorobenzene	1022	0	1000	0	102	70-130	1011	1.03	30		
Surr: Dibromofluoromethane	974	0	1000	0	97.4	70-130	987.5	1.38	30		
Surr: Toluene-d8	1028	0	1000	0	103	70-130	1002	2.46	30		

The following samples were analyzed in this batch:

1507829-01A	1507829-02A	1507829-03A
1507829-04A	1507829-05A	1507829-06A
1507829-07A	1507829-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73603** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 1507789-03B DUP				Units: mmhos/cm @25°		Analysis Date: 7/20/2015 10:45 AM		
Client ID:		Run ID: WETCHEM_150720B				SeqNo: 3376305		Prep Date: 7/17/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.473	0.050	0	0	0		0.553	15.6	50	

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73614** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-73614-73614					Units: s.u.		Analysis Date: 7/16/2015 01:00 PM		
Client ID:		Run ID: WETCHEM_150716F			SeqNo: 3373262		Prep Date: 7/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	3.89	0	4	0	97.2	90-110	0			
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DUP		Sample ID: 1507786-05B DUP				Units: s.u.		Analysis Date: 7/16/2015 01:00 PM		
Client ID:		Run ID: WETCHEM_150716F				SeqNo: 3373272		Prep Date: 7/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH	8.66	0	0	0	0	0-0	8.68	0.231	20	
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DUP				Sample ID: 1507829-01B DUP				Units: s.u.			Analysis Date: 7/16/2015 01:00 PM			
Client ID: NW01				Run ID: WETCHEM_150716F				SeqNo: 3373275			Prep Date: 7/16/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH	8.24	0	0	0	0	0-0	8.17	0.853	20	
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The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73816** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-73816-73816				Units: mg/Kg		Analysis Date: 7/21/2015 04:00 PM		
Client ID:		Run ID: WETCHEM_150721S		SeqNo: 3380370		Prep Date: 7/19/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 1.0

LCS		Sample ID: LCS-73816-73816				Units: mg/Kg		Analysis Date: 7/21/2015 04:00 PM		
Client ID:		Run ID: WETCHEM_150721S		SeqNo: 3380369		Prep Date: 7/19/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.56 1.0 5 0 91.2 80-120 0

MS		Sample ID: 15071004-01A MS				Units: mg/Kg		Analysis Date: 7/21/2015 04:00 PM		
Client ID:		Run ID: WETCHEM_150721S		SeqNo: 3380352		Prep Date: 7/19/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.301 0.97 4.854 0.1827 84.8 75-125 0

MS		Sample ID: 15071004-01A MSI				Units: mg/Kg		Analysis Date: 7/21/2015 04:00 PM		
Client ID:		Run ID: WETCHEM_150721S		SeqNo: 3380354		Prep Date: 7/19/2015		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3043 99 2788 0.1827 109 75-125 0

MSD		Sample ID: 15071004-01A MSD				Units: mg/Kg		Analysis Date: 7/21/2015 04:00 PM		
Client ID:		Run ID: WETCHEM_150721S		SeqNo: 3380353		Prep Date: 7/19/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.3 1.0 5 0.1827 82.3 75-125 4.301 0.0226 20

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **73861** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-73861-73861				Units: mg/Kg		Analysis Date: 7/22/2015 10:15 AM		
Client ID:		Run ID: WETCHEM_150722C				SeqNo: 3381586		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.32	1.0								J

LCS		Sample ID: LCS-73861-73861				Units: mg/Kg		Analysis Date: 7/22/2015 10:15 AM		
Client ID:		Run ID: WETCHEM_150722C				SeqNo: 3381585		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.56	1.0	5	0	91.2	80-120	0			

MS		Sample ID: 1507829-07B MS				Units: mg/Kg		Analysis Date: 7/22/2015 10:15 AM		
Client ID: PB01		Run ID: WETCHEM_150722C				SeqNo: 3381577		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.735	1.0	5.102	0.4592	64.2	75-125	0			S

MS		Sample ID: 1507829-07B MSI				Units: mg/Kg		Analysis Date: 7/22/2015 10:15 AM		
Client ID: PB01		Run ID: WETCHEM_150722C				SeqNo: 3381579		Prep Date: 7/20/2015		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2258	94	2596	0.4592	87	75-125	0			

MSD		Sample ID: 1507829-07B MSD				Units: mg/Kg		Analysis Date: 7/22/2015 10:15 AM		
Client ID: PB01		Run ID: WETCHEM_150722C				SeqNo: 3381578		Prep Date: 7/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.469	1.0	5.102	0.4592	59	75-125	3.735	7.37	20	S

The following samples were analyzed in this batch:

1507829-07B 1507829-08B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc.
Work Order: 1507829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **R167810** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R167810				Units: % of sample		Analysis Date: 7/16/2015 03:25 PM		
Client ID:		Run ID: MOIST_150716C				SeqNo: 3374683		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R167810					Units: % of sample		Analysis Date: 7/16/2015 03:25 PM		
Client ID:			Run ID: MOIST_150716C			SeqNo: 3374682		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP				Sample ID: 1507682-01B DUP				Units: % of sample			Analysis Date: 7/16/2015 03:25 PM			
Client ID:				Run ID: MOIST_150716C				SeqNo: 3374657			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture 20.46 0.050 0 0 0 21.63 5.56 20

DUP				Sample ID: 1507869-01A DUP				Units: % of sample			Analysis Date: 7/16/2015 03:25 PM			
Client ID:				Run ID: MOIST_150716C				SeqNo: 3374680			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 7.57 0.050 0 0 0 7.82 3.25 20

The following samples were analyzed in this batch:

1507829-01B	1507829-02B	1507829-03B
1507829-04B	1507829-05B	1507829-06B
1507829-07B	1507829-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



☐ ALS Environmental
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

☒ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Customer Information			Project Information				Parameter/Method Request for Analysis										
Purchase Order		Project Name	Gamma State 14-15D		A	DRO - Method 8015											
Work Order		Project Number	039615002		B	BTEX + TPH as gas - Method 8260											
Company Name	LT Environmental	Bill To Company	LT Environmental		C	PAHs - Method 8270SIM											
Sand Report To	Brett Forkner	Invoice Affn.	same		D	Metals - As, Ba, Cd, Cr3, Cu, Pb, Ni, Se, Ag, Zn - Method 6020											
Address	4800 W. 60th Ave.	Address			E	EC and SAR - Method LADNR 29B											
City/State/Zip	Aravada, CO 80003	City/State/Zip			F	Hexavalent Chromium - Method 7196											
Phone	303-433-9788	Phone			G	pH - Method 9045C											
Fax	303-433-1432	Fax			H	Mercury - Method 7470/7471											
e-Mail Address	bforkner@ltenv.com				I												
					J												
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	NW01	7/14/2015	09:00	Soil	None	3 ±	X	X	X	X	X	X	X	X			
2	EW01	7/14/2015	09:05	Soil	None	3 ±	X	X	X	X	X	X	X	X			
3	EW02 ✓	7/14/2015	09:10	Soil	None	3 ±	X	X	X	X	X	X	X	X			
4	SW01 ✓	7/14/2015	09:15	Soil	None	3 ±	X	X	X	X	X	X	X	X			
5	WW01	7/14/2015	09:20	Soil	None	3 ±	X	X	X	X	X	X	X	X			
6	WW02	7/14/2015	09:25	Soil	None	3 ±	X	X	X	X	X	X	X	X			
7	PB01	7/14/2015	09:30	Soil	None	3 ±	X	X	X	X	X	X	X	X			
8	PB02	7/14/2015	09:35	Soil	None	3 ±	X	X	X	X	X	X	X	X			
9																	
10																	
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)				Other				Results Due Date:					
Steve Savigliano / Steve Scifano		Courier		<input type="checkbox"/> 10 Wk Days <input checked="" type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour													
Relinquished by:		Date:	Time:	Received by:		Date:	Time:	Notes: Copy report to: skahn@ltenv.com, rfishburn@ltenv.com									
Steve Scifano		7/14/15		[Signature]		7-14-15	1400	5 Day Standard TAT for LT Environmental									
Relinquished by:		Date:	Time:	Received by (Laboratory):		Date:	Time:	ALS Cooler ID		Cooler Temp		QC Package: (Check Box Below)					
[Signature]		7-14-15	1430	[Signature]		7/15/15	0930			3.6°		<input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data					
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):								<input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV					
Kevin		7/15/15	1400	[Signature]								<input type="checkbox"/> Level IV: SW846 Methods/CLP like					
												<input type="checkbox"/> Other:					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C																	
Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.																	

ORIGIN ID: RILA (816) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 14 JUL 15
 ACTWGT: 55.00 LB
 CAD: 2284840/NET 3870
 DIMS: 26x18x18 IN
 BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

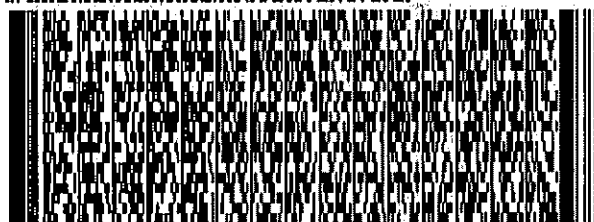
HOLLAND MI 49424

(816) 398-6070

REF: 071415-1

INV
 PO: PARACHUTE

DEPT:



FedEx
 Express



REL#
 3785346

TRK#
 0201

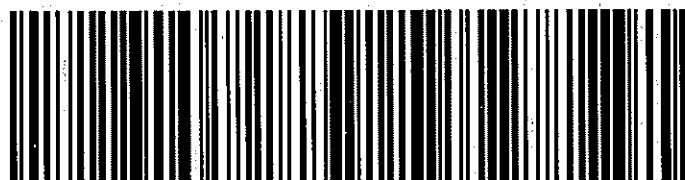
7740 5310 0453

MASTER

XX HLMA

MI-US

49424
GRR



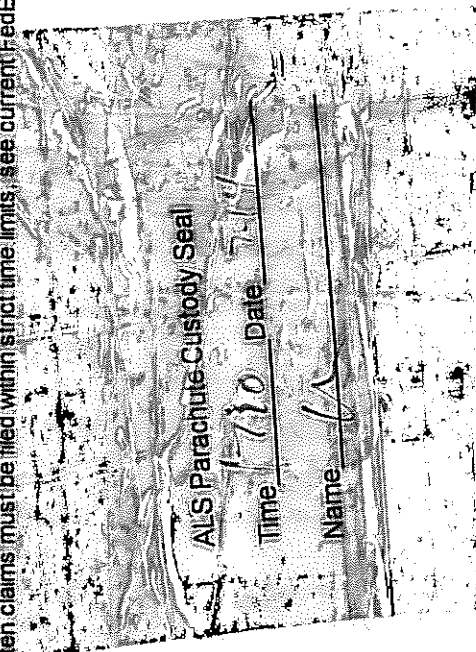
WED - 15 JUL 10:30A
PRIORITY OVERNIGHT

539.03/1A153100

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000 (e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; see current FedEx Service Guide.



Sample Receipt Checklist

Client Name: LTENV-ARVADA CO

Date/Time Received: 15-Jul-15 09:30

Work Order: 1507829

Received by: KRW

Checklist completed by Keith Wurenga
eSignature

15-Jul-15
Date

Reviewed by: Chad Whelton
eSignature

15-Jul-15
Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.6 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>7/15/2015 1:59:59 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



13-Nov-2015

Chris Roy
LT Environmental, Inc
820 Megan Ave. Unit B
Rifle, CO 81650

Re: **Gamma State 14-15D**

Work Order: **1511661**

Dear Chris,

ALS Environmental received 4 samples on 12-Nov-2015 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 13.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Work Order: 1511661**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1511661-01	Dump Line	Soil		11/10/2015 12:06	11/12/2015 09:00	<input type="checkbox"/>
1511661-02	PB-01	Soil		11/10/2015 12:10	11/12/2015 09:00	<input type="checkbox"/>
1511661-03	PB-02	Soil		11/10/2015 12:14	11/12/2015 09:00	<input type="checkbox"/>
1511661-04	PB-03	Soil		11/10/2015 12:15	11/12/2015 09:00	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Gamma State 14-15D
WorkOrder: 1511661

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 13-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: Dump Line
Collection Date: 11/10/2015 12:06 PM

Work Order: 1511661
Lab ID: 1511661-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/12/15		Analyst: IT
DRO (C10-C28)	1.6	J	1.5	4.5	mg/Kg-dry	1	11/13/2015 04:19
ORO (C28-C40)	7.7		1.6	4.5	mg/Kg-dry	1	11/13/2015 04:19
Surr: 4-Terphenyl-d14	58.2			39-133	%REC	1	11/13/2015 04:19
<hr/>							
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/12/15		Analyst: IT
GRO (C6-C10)	U		1,400	2,800	µg/Kg-dry	1	11/13/2015 01:15
Surr: Toluene-d8	116			50-150	%REC	1	11/13/2015 01:15
<hr/>							
MOISTURE			Method: E160.3M				Analyst: TM
Moisture	11		0.025	0.050	% of sample	1	11/12/2015 16:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 13-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: PB-01
Collection Date: 11/10/2015 12:10 PM

Work Order: 1511661
Lab ID: 1511661-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/12/15		Analyst: IT
DRO (C10-C28)	140		1.5	4.5	mg/Kg-dry	1	11/13/2015 05:19
ORO (C28-C40)	11		1.6	4.5	mg/Kg-dry	1	11/13/2015 05:19
Surr: 4-Terphenyl-d14	55.0			39-133	%REC	1	11/13/2015 05:19
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/12/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,800	µg/Kg-dry	1	11/13/2015 01:40
Surr: Toluene-d8	100			50-150	%REC	1	11/13/2015 01:40
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	10		0.025	0.050	% of sample	1	11/12/2015 16:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 13-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: PB-02
Collection Date: 11/10/2015 12:14 PM

Work Order: 1511661
Lab ID: 1511661-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/12/15		Analyst: IT
DRO (C10-C28)	1,600		1.5	4.6	mg/Kg-dry	1	11/13/2015 05:49
ORO (C28-C40)	36		1.6	4.6	mg/Kg-dry	1	11/13/2015 05:49
Surr: 4-Terphenyl-d14	97.1			39-133	%REC	1	11/13/2015 05:49
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/12/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,800	µg/Kg-dry	1	11/13/2015 02:05
Surr: Toluene-d8	116			50-150	%REC	1	11/13/2015 02:05
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	10		0.025	0.050	% of sample	1	11/12/2015 16:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 13-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: PB-03
Collection Date: 11/10/2015 12:15 PM

Work Order: 1511661
Lab ID: 1511661-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/12/15		Analyst: IT
DRO (C10-C28)	530		1.5	4.5	mg/Kg-dry	1	11/13/2015 06:19
ORO (C28-C40)	32		1.6	4.5	mg/Kg-dry	1	11/13/2015 06:19
Surr: 4-Terphenyl-d14	100			39-133	%REC	1	11/13/2015 06:19
<hr/>							
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/12/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,800	µg/Kg-dry	1	11/13/2015 02:30
Surr: Toluene-d8	114			50-150	%REC	1	11/13/2015 02:30
<hr/>							
MOISTURE			Method: E160.3M				Analyst: TM
Moisture	10		0.025	0.050	% of sample	1	11/12/2015 16:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 13-Nov-15

Client: LT Environmental, Inc
Work Order: 1511661
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78811** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-78811-78811				Units: mg/Kg		Analysis Date: 11/13/2015 02:19 A		
Client ID:		Run ID: GC8_151112B				SeqNo: 3564151		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>	1.392	0	2	0	69.6	39-133	0			

LCS		Sample ID: DLCSS1-78811-78811				Units: mg/Kg		Analysis Date: 11/13/2015 02:49 A		
Client ID:		Run ID: GC8_151112B				SeqNo: 3564152		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	163.7	5.0	200	0	81.9	61-109	0			
ORO (C28-C40)	139	5.0	200	0	69.5	61-119	0			
<i>Surr: 4-Terphenyl-d14</i>	1.266	0	2	0	63.3	39-133	0			

MS		Sample ID: 1511661-01B MS				Units: mg/Kg		Analysis Date: 11/13/2015 03:19 A		
Client ID: Dump Line		Run ID: GC8_151112B				SeqNo: 3564153		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	107.7	4.2	166.3	1.394	63.9	48-110	0			
ORO (C28-C40)	103.8	4.2	166.3	6.877	58.3	39-140	0			
<i>Surr: 4-Terphenyl-d14</i>	0.8764	0	1.663	0	52.7	39-133	0			

MSD		Sample ID: 1511661-01B MSD				Units: mg/Kg		Analysis Date: 11/13/2015 03:49 A		
Client ID: Dump Line		Run ID: GC8_151112B				SeqNo: 3564154		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	121.9	4.2	166.6	1.394	72.3	48-110	107.7	12.4	30	
ORO (C28-C40)	120.3	4.2	166.6	6.877	68.1	39-140	103.8	14.8	30	
<i>Surr: 4-Terphenyl-d14</i>	0.9894	0	1.666	0	59.4	39-133	0.8764	12.1	30	

The following samples were analyzed in this batch:

1511661-01B	1511661-02B	1511661-03B
1511661-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
 Work Order: 1511661
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78795** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-78795-78795				Units: µg/Kg		Analysis Date: 11/12/2015 01:06 PM		
Client ID:		Run ID: GC9_151112A				SeqNo: 3562460		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	U	2,500								
Surr: Toluene-d8	5367	0	5000	0	107	50-150	0			

LCS		Sample ID: LCS-78795-78795				Units: µg/Kg		Analysis Date: 11/12/2015 12:41 PM		
Client ID:		Run ID: GC9_151112A				SeqNo: 3562459		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	475500	2,500	500000	0	95.1	70-130	0			
Surr: Toluene-d8	4881	0	5000	0	97.6	50-150	0			

MS		Sample ID: 1511624-01A MS				Units: µg/Kg		Analysis Date: 11/12/2015 05:13 PM		
Client ID:		Run ID: GC9_151112A				SeqNo: 3564178		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	641900	2,500	500000	0	128	70-130	0			
Surr: Toluene-d8	5660	0	5000	0	113	50-150	0			

MSD		Sample ID: 1511624-01A MSD				Units: µg/Kg		Analysis Date: 11/12/2015 05:38 PM		
Client ID:		Run ID: GC9_151112A				SeqNo: 3564179		Prep Date: 11/12/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	554700	2,500	500000	0	111	70-130	641900	14.6	30	
Surr: Toluene-d8	5028	0	5000	0	101	50-150	5660	11.8	30	

The following samples were analyzed in this batch:

1511661-01A	1511661-02A	1511661-03A
1511661-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 1511661
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **R176097** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R176097				Units: % of sample		Analysis Date: 11/12/2015 04:20 PM		
Client ID:		Run ID: MOIST_151112A				SeqNo: 3564812		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture U 0.050

LCS		Sample ID: LCS-R176097				Units: % of sample		Analysis Date: 11/12/2015 04:20 PM		
Client ID:		Run ID: MOIST_151112A				SeqNo: 3564811		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1511501-01A DUP				Units: % of sample		Analysis Date: 11/12/2015 04:20 PM		
Client ID:		Run ID: MOIST_151112A				SeqNo: 3564774		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 5.57 0.050 0 0 0 5.57 0 20

DUP		Sample ID: 1511663-02B DUP				Units: % of sample		Analysis Date: 11/12/2015 04:20 PM		
Client ID:		Run ID: MOIST_151112A				SeqNo: 3564794		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.12 0.050 0 0 0 14.03 0.639 20

The following samples were analyzed in this batch:

1511661-01B	1511661-02B	1511661-03B
1511661-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



CHAIN OF CUSTODY

GOC number (for client tracking)

Failure to complete all section of this form may delay analysis.

Page 1 of 1

[illegible]

0.4°C

ORIGIN ID: RILA (616) 298-1033
NICK MARTINEZ
ALS ENVIRONMENTAL PARACHUTE
PARACHUTE SERVICE CENTER
127 EAST 1ST ST
PARACHUTE, CO 81635
UNITED STATES US

SHIP DATE: 11NOV15
ACTWGT: 66.00 LB
CAD: 2284840 NET 13670
DIMS: 24x15x15 IN

BILL SENDER :

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424

(616) 399-6070 REF: 111115-1

INV: PO: PARACHUTE DEPT:

539,026F5631D0

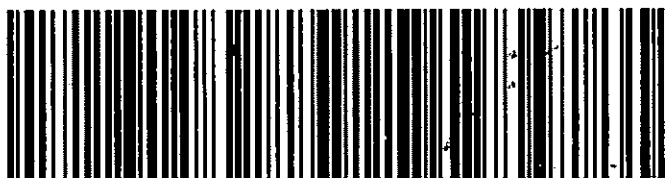


THU - 12 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 7749 5766 9508
0201

XX HLMA

49424
MI-US GRR



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or Inkjet printer.
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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04c

Sample Receipt Checklist

Client Name: LTENV

Date/Time Received: 12-Nov-15 09:00

Work Order: 1511661

Received by: DS

Checklist completed by Diane Shaw 12-Nov-15
eSignature Date

Reviewed by: Chad Whelton 12-Nov-15
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>0.4/0.4 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/12/2015 11:18:22 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



16-Nov-2015

Chris Roy
LT Environmental, Inc
820 Megan Ave. Unit B
Rifle, CO 81650

Re: **Gamma State 14-15D**

Work Order: **1511727**

Dear Chris,

ALS Environmental received 7 samples on 13-Nov-2015 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 16.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Work Order: 1511727

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1511727-01	EB-01	Soil		11/11/2015 14:57	11/13/2015 09:00	<input type="checkbox"/>
1511727-02	EB-02	Soil		11/11/2015 15:02	11/13/2015 09:00	<input type="checkbox"/>
1511727-03	EB-03	Soil		11/11/2015 15:05	11/13/2015 09:00	<input type="checkbox"/>
1511727-04	SWALL-01	Soil		11/11/2015 15:07	11/13/2015 09:00	<input type="checkbox"/>
1511727-05	WWALL-01	Soil		11/11/2015 15:12	11/13/2015 09:00	<input type="checkbox"/>
1511727-06	WWALL-02	Soil		11/11/2015 15:15	11/13/2015 09:00	<input type="checkbox"/>
1511727-07	WWALL-03	Soil		11/11/2015 15:20	11/13/2015 09:00	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Gamma State 14-15D
WorkOrder: 1511727

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EB-01
Collection Date: 11/11/2015 02:57 PM

Work Order: 1511727
Lab ID: 1511727-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	20		1.8	5.3	mg/Kg-dry	1	11/14/2015 10:48
ORO (C28-C40)	8.2		1.8	5.3	mg/Kg-dry	1	11/14/2015 10:48
Surr: 4-Terphenyl-d14	58.4			39-133	%REC	1	11/14/2015 10:48
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,600	3,200	µg/Kg-dry	1	11/13/2015 20:27
Surr: Toluene-d8	102			50-150	%REC	1	11/13/2015 20:27
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	23		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EB-02
Collection Date: 11/11/2015 03:02 PM

Work Order: 1511727
Lab ID: 1511727-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	20		1.6	5.0	mg/Kg-dry	1	11/14/2015 11:15
ORO (C28-C40)	6.7		1.7	5.0	mg/Kg-dry	1	11/14/2015 11:15
Surr: 4-Terphenyl-d14	64.2			39-133	%REC	1	11/14/2015 11:15
<hr/>							
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,500	3,100	µg/Kg-dry	1	11/13/2015 20:52
Surr: Toluene-d8	104			50-150	%REC	1	11/13/2015 20:52
<hr/>							
MOISTURE			Method: E160.3M				Analyst: TM
Moisture	18		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EB-03
Collection Date: 11/11/2015 03:05 PM

Work Order: 1511727
Lab ID: 1511727-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	1,700		1.6	4.9	mg/Kg-dry	1	11/14/2015 11:42
ORO (C28-C40)	17		1.7	4.9	mg/Kg-dry	1	11/14/2015 11:42
Surr: 4-Terphenyl-d14	69.9			39-133	%REC	1	11/14/2015 11:42
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,500	3,000	µg/Kg-dry	1	11/13/2015 21:16
Surr: Toluene-d8	104			50-150	%REC	1	11/13/2015 21:16
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	18		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: SWALL-01
Collection Date: 11/11/2015 03:07 PM

Work Order: 1511727
Lab ID: 1511727-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	3.2	J	1.5	4.7	mg/Kg-dry	1	11/14/2015 12:10
ORO (C28-C40)	U		1.6	4.7	mg/Kg-dry	1	11/14/2015 12:10
Surr: 4-Terphenyl-d14	60.5			39-133	%REC	1	11/14/2015 12:10
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,400	2,900	µg/Kg-dry	1	11/13/2015 21:41
Surr: Toluene-d8	105			50-150	%REC	1	11/13/2015 21:41
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	13		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: WWALL-01
Collection Date: 11/11/2015 03:12 PM

Work Order: 1511727
Lab ID: 1511727-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	U		1.5	4.6	mg/Kg-dry	1	11/14/2015 12:37
ORO (C28-C40)	U		1.6	4.6	mg/Kg-dry	1	11/14/2015 12:37
Surr: 4-Terphenyl-d14	56.9			39-133	%REC	1	11/14/2015 12:37
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,800	µg/Kg-dry	1	11/13/2015 23:19
Surr: Toluene-d8	102			50-150	%REC	1	11/13/2015 23:19
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	9.9		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: WWALL-02
Collection Date: 11/11/2015 03:15 PM

Work Order: 1511727
Lab ID: 1511727-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	12		1.5	4.6	mg/Kg-dry	1	11/14/2015 13:04
ORO (C28-C40)	5.5		1.6	4.6	mg/Kg-dry	1	11/14/2015 13:04
Surr: 4-Terphenyl-d14	58.7			39-133	%REC	1	11/14/2015 13:04
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,800	µg/Kg-dry	1	11/13/2015 23:44
Surr: Toluene-d8	100			50-150	%REC	1	11/13/2015 23:44
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	9.1		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: WWALL-03
Collection Date: 11/11/2015 03:20 PM

Work Order: 1511727
Lab ID: 1511727-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/13/15		Analyst: IT
DRO (C10-C28)	2.2	J	1.6	4.8	mg/Kg-dry	1	11/14/2015 13:58
ORO (C28-C40)	U		1.7	4.8	mg/Kg-dry	1	11/14/2015 13:58
Surr: 4-Terphenyl-d14	58.9			39-133	%REC	1	11/14/2015 13:58
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/13/15		Analyst: IT
GRO (C6-C10)	U		1,400	3,000	µg/Kg-dry	1	11/14/2015 12:08
Surr: Toluene-d8	102			50-150	%REC	1	11/14/2015 12:08
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	16		0.025	0.050	% of sample	1	11/13/2015 13:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 16-Nov-15

Client: LT Environmental, Inc
Work Order: 1511727
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78865** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-78865-78865				Units: mg/Kg		Analysis Date: 11/14/2015 09:00 A		
Client ID:		Run ID: GC8_151114A				SeqNo: 3568223		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>	<i>1.368</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>68.4</i>	<i>39-133</i>	<i>0</i>			

LCS		Sample ID: DLCSS1-78865-78865				Units: mg/Kg		Analysis Date: 11/14/2015 09:27 A		
Client ID:		Run ID: GC8_151114A				SeqNo: 3568225		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	161	5.0	200	0	80.5	61-109	0			
ORO (C28-C40)	160.2	5.0	200	0	80.1	61-119	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>1.246</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>62.3</i>	<i>39-133</i>	<i>0</i>			

MS		Sample ID: 1511727-01B MS				Units: mg/Kg		Analysis Date: 11/14/2015 09:54 A		
Client ID: EB-01		Run ID: GC8_151114A				SeqNo: 3568227		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	150.4	4.1	162.4	15.46	83.1	48-110	0			
ORO (C28-C40)	125.5	4.1	162.4	6.291	73.4	39-140	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.9977</i>	<i>0</i>	<i>1.624</i>	<i>0</i>	<i>61.4</i>	<i>39-133</i>	<i>0</i>			

MSD		Sample ID: 1511727-01B MSD				Units: mg/Kg		Analysis Date: 11/14/2015 10:21 A		
Client ID: EB-01		Run ID: GC8_151114A				SeqNo: 3568229		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	146.5	4.2	166.5	15.46	78.7	48-110	150.4	2.63	30	
ORO (C28-C40)	128.7	4.2	166.5	6.291	73.5	39-140	125.5	2.5	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>0.997</i>	<i>0</i>	<i>1.665</i>	<i>0</i>	<i>59.9</i>	<i>39-133</i>	<i>0.9977</i>	<i>0.0693</i>	<i>30</i>	

The following samples were analyzed in this batch:

1511727-01B	1511727-02B	1511727-03B
1511727-04B	1511727-05B	1511727-06B
1511727-07B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
 Work Order: 1511727
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78868** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: MBLK-78868-78868				Units: µg/Kg		Analysis Date: 11/13/2015 07:38 PM		
Client ID:		Run ID: GC10_151113A				SeqNo: 3566242		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	2,500								
Surr: Toluene-d8	4988	0	5000	0	99.8	50-150	0			

LCS		Sample ID: LCS-78868-78868				Units: µg/Kg		Analysis Date: 11/13/2015 07:14 PM		
Client ID:		Run ID: GC10_151113A				SeqNo: 3566241		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	540600	2,500	500000	0	108	70-130	0			
Surr: Toluene-d8	4975	0	5000	0	99.5	50-150	0			

MS		Sample ID: 1511730-08A MS				Units: µg/Kg		Analysis Date: 11/13/2015 10:05 PM		
Client ID:		Run ID: GC10_151113A				SeqNo: 3566248		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	707300	2,500	500000	0	141	70-130	0			S
Surr: Toluene-d8	5273	0	5000	0	105	50-150	0			

MSD		Sample ID: 1511730-08A MSD				Units: µg/Kg		Analysis Date: 11/13/2015 10:30 PM		
Client ID:		Run ID: GC10_151113A				SeqNo: 3566249		Prep Date: 11/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	663000	2,500	500000	0	133	70-130	707300	6.47	30	S
Surr: Toluene-d8	4975	0	5000	0	99.5	50-150	5273	5.82	30	

The following samples were analyzed in this batch:

1511727-01A	1511727-02A	1511727-03A
1511727-04A	1511727-05A	1511727-06A
1511727-07A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 1511727
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **R176226** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R176226				Units: % of sample		Analysis Date: 11/13/2015 01:02 PM		
Client ID:		Run ID: MOIST_151113A				SeqNo: 3567684		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture U 0.050

LCS		Sample ID: LCS-R176226				Units: % of sample		Analysis Date: 11/13/2015 01:02 PM		
Client ID:		Run ID: MOIST_151113A				SeqNo: 3567683		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1511677-01A DUP				Units: % of sample		Analysis Date: 11/13/2015 01:02 PM		
Client ID:		Run ID: MOIST_151113A				SeqNo: 3567647		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 33.42 0.050 0 0 0 33.63 0.626 20

DUP		Sample ID: 1511730-03B DUP				Units: % of sample		Analysis Date: 11/13/2015 01:02 PM		
Client ID:		Run ID: MOIST_151113A				SeqNo: 3567658		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.99 0.050 0 0 0 13.91 0.573 20

The following samples were analyzed in this batch:

1511727-01B	1511727-02B	1511727-03B
1511727-04B	1511727-05B	1511727-06B
1511727-07B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

1511727

ALS Laboratory Group		CHAIN OF CUSTODY				DOC number (for client tracking)	
		Failure to complete all section of this form may delay analysis.				Page 1 of 1	
CLIENT CONTACT AND REPORTING INFORMATION		INVOICE ADDRESS (if other than reporting address)				ANALYSIS REQUIRED (suite codes must be listed to attract suite prices)	
Company Name: LT Environmental		Company Name: SAME				BTEX TPH GRO/DRO/ORO Table 910-1 PAHs 8270 SIM EC PH SAR Table 910-1 Metals: As, Ba, Cd, Cr III, Cr VI, Cu, Pb, Hg, Ni, Se, Ag, Zn Total Arsenic 6020	
Project Manager: Chris Roy		Contact Name: SAME					
Address: 4600 West 60th Ave		Address: SAME					
Avada, CO 80003							
Phone: 303-433-8788							
Email: croy@ltenv.com, wtoews@ltenv.com		PROJECT INFORMATION					
Sampler Name (Print): Wesley Toews		Project ID: 039615002					
Site: Gamma State 14-150		PO No:					
SERVICE REQUEST (Express services subject to availability)		ALS Quote No:					
<input type="checkbox"/> Regular (default) 5-day Standard TAT <input checked="" type="checkbox"/> Express (Pls specify date required <u>same day</u>) (express fee will apply)							
ALS ID #	SAMPLE IDENTIFICATION (this description will appear on report)	Depth (ft)	SAMPLING AND CONTAINER INFO			Matrix	CROSS THE REQUESTED ANALYSIS
			Date	Time	Test Bottle		
1	EB-01	Surface	11-11-15	1457	2	S	X
2	EB-02			1502			X
3	EB-03			1505			X
4	SW11-01			1507			X
5	WW11-01			1512			X
6	WW11-02			1515			X
7	WW11-03			1520			X
CLIENT SIGNATURES		For lab use only					
Client's Signature: <u>[Signature]</u>		Cooler Security Seal		Sample Temp: <u>3.8</u>	No of Cooler Received	Received by (lab) <u>[Signature]</u> Date and Time <u>11/13/15 0900</u>	
Client's Date and Time of Completion: <u>11-12-15 1341</u>		<input type="checkbox"/> sealed <input type="checkbox"/> broken <input type="checkbox"/> not available		<input type="checkbox"/> chilled deg °C <input type="checkbox"/> ambient	carton / cooler box	Committed by <u>[Signature]</u> Date and Time	
Note: (a) DW (Drinking water), SW (Surface water), GW (Ground water), WW (Waste water), S (Soil), SL (Sludge), SE (Sediment), OS (Other solid material)							

4.42

ORIGIN ID: RILA (618) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 12NOV15
 ACTWGT: 68.00 LB
 CAD: 2264840/NET3870
 DIMS: 24x15x15 IN
 BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424

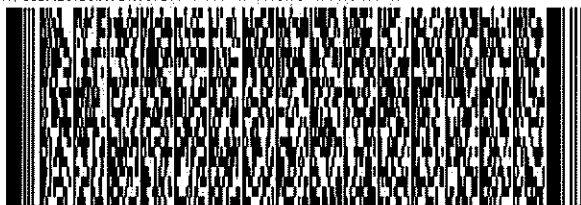
(616) 399-6070

REF: 111215-1

R/V

PO: PARACHUTE

DEPT:



539.023F863100

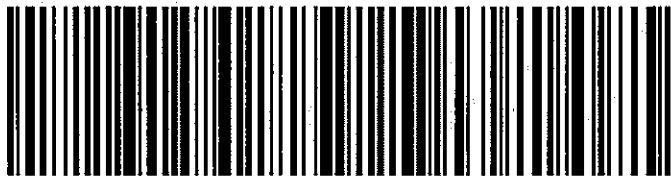
TRK#
0201

7749 6833 2896

FRI - 13 NOV 10:30A
PRIORITY OVERNIGHT

XX HLMA

49424
MI-US GRR



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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Sample Receipt Checklist

Client Name: LTENV

Date/Time Received: 13-Nov-15 09:00

Work Order: 1511727

Received by: DS

Checklist completed by Diane Shaw 13-Nov-15
eSignature Date

Reviewed by: Chad Whelton 16-Nov-15
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4/4.4 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/13/2015 11:13:37 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



17-Nov-2015

Chris Roy
LT Environmental, Inc
820 Megan Ave. Unit B
Rifle, CO 81650

Re: **Gamma State 14-15D**

Work Order: **1511828**

Dear Chris,

ALS Environmental received 4 samples on 14-Nov-2015 09:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Work Order: 1511828

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1511828-01	Overburden-01	Soil		11/12/2015 15:35	11/14/2015 09:45	<input type="checkbox"/>
1511828-02	WWall-04	Soil		11/12/2015 15:55	11/14/2015 09:45	<input type="checkbox"/>
1511828-03	NWall-01	Soil		11/12/2015 16:00	11/14/2015 09:45	<input type="checkbox"/>
1511828-04	EWall-01	Soil		11/12/2015 16:05	11/14/2015 09:45	<input type="checkbox"/>

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc

Project: Gamma State 14-15D

Work Order: 1511828

Case Narrative

Batch 78900, Method GRO_8015_S, Sample 1511828-01A MS: The MS recovery was above the upper control limit for GRO. The corresponding result in the parent sample was non-detect, therefore no qualification is required.

Client: LT Environmental, Inc
Project: Gamma State 14-15D
WorkOrder: 1511828

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: Overburden-01
Collection Date: 11/12/2015 03:35 PM

Work Order: 1511828
Lab ID: 1511828-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	790		1.5	4.7	mg/Kg-dry	1	11/16/2015 21:40
ORO (C28-C40)	23		1.6	4.7	mg/Kg-dry	1	11/16/2015 21:40
Surr: 4-Terphenyl-d14	60.6			39-133	%REC	1	11/16/2015 21:40
<hr/>							
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,400	2,800	µg/Kg-dry	1	11/16/2015 11:49
Surr: Toluene-d8	110			50-150	%REC	1	11/16/2015 11:49
<hr/>							
MOISTURE			Method: E160.3M				Analyst: LR
Moisture	12		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: WWall-04
Collection Date: 11/12/2015 03:55 PM

Work Order: 1511828
Lab ID: 1511828-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	2.5	J	1.6	4.8	mg/Kg-dry	1	11/16/2015 22:07
ORO (C28-C40)	U		1.6	4.8	mg/Kg-dry	1	11/16/2015 22:07
Surr: 4-Terphenyl-d14	57.2			39-133	%REC	1	11/16/2015 22:07
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,400	2,900	µg/Kg-dry	1	11/16/2015 18:07
Surr: Toluene-d8	106			50-150	%REC	1	11/16/2015 18:07
MOISTURE							
			Method: E160.3M				Analyst: LR
Moisture	14		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: NWall-01
Collection Date: 11/12/2015 04:00 PM

Work Order: 1511828
Lab ID: 1511828-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	190		1.5	4.5	mg/Kg-dry	1	11/16/2015 22:35
ORO (C28-C40)	7.6		1.6	4.5	mg/Kg-dry	1	11/16/2015 22:35
Surr: 4-Terphenyl-d14	54.8			39-133	%REC	1	11/16/2015 22:35
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,700	µg/Kg-dry	1	11/16/2015 18:32
Surr: Toluene-d8	107			50-150	%REC	1	11/16/2015 18:32
MOISTURE							
			Method: E160.3M				Analyst: LR
Moisture	8.6		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EWall-01
Collection Date: 11/12/2015 04:05 PM

Work Order: 1511828
Lab ID: 1511828-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	3.4	J	1.5	4.5	mg/Kg-dry	1	11/16/2015 23:02
ORO (C28-C40)	U		1.5	4.5	mg/Kg-dry	1	11/16/2015 23:02
Surr: 4-Terphenyl-d14	60.2			39-133	%REC	1	11/16/2015 23:02
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,700	µg/Kg-dry	1	11/16/2015 18:57
Surr: Toluene-d8	106			50-150	%REC	1	11/16/2015 18:57
MOISTURE							
			Method: E160.3M				Analyst: LR
Moisture	7.6		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Work Order: 1511828
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78892** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-78892-78892				Units: mg/Kg		Analysis Date: 11/16/2015 12:32 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570111		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>	<i>1.266</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>63.3</i>	<i>39-133</i>	<i>0</i>			

LCS		Sample ID: DLCSS1-78892-78892				Units: mg/Kg		Analysis Date: 11/16/2015 12:59 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570112		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	164.2	5.0	200	0	82.1	61-109	0			
ORO (C28-C40)	162.1	5.0	200	0	81	61-119	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>1.131</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>56.6</i>	<i>39-133</i>	<i>0</i>			

MS		Sample ID: 1511827-01B MS				Units: mg/Kg		Analysis Date: 11/16/2015 01:27 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570114		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	3890	4.1	164.4	3680	128	48-110	0			SEO
ORO (C28-C40)	204	4.1	164.4	88.98	70	39-140	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.964</i>	<i>0</i>	<i>1.644</i>	<i>0</i>	<i>58.6</i>	<i>39-133</i>	<i>0</i>			

MSD		Sample ID: 1511827-01B MSD				Units: mg/Kg		Analysis Date: 11/16/2015 01:54 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570116		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	2907	4.2	166.1	3680	-465	48-110	3890	28.9	30	SEO
ORO (C28-C40)	182	4.2	166.1	88.98	56	39-140	204	11.4	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>1.045</i>	<i>0</i>	<i>1.661</i>	<i>0</i>	<i>62.9</i>	<i>39-133</i>	<i>0.964</i>	<i>8.08</i>	<i>30</i>	

The following samples were analyzed in this batch:

1511828-01B	1511828-02B	1511828-03B
1511828-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
 Work Order: 1511828
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78900** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-78900-78900				Units: µg/Kg		Analysis Date: 11/16/2015 11:24 A		
Client ID:		Run ID: GC9_151116A				SeqNo: 3570750		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	U	2,500								
Surr: Toluene-d8	5084	0	5000	0	102	50-150	0			

LCS		Sample ID: LCS-78900-78900				Units: µg/Kg		Analysis Date: 11/16/2015 10:58 A		
Client ID:		Run ID: GC9_151116A				SeqNo: 3570749		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	524300	2,500	500000	0	105	70-130	0			
Surr: Toluene-d8	4932	0	5000	0	98.6	50-150	0			

MS		Sample ID: 1511828-01A MS				Units: µg/Kg		Analysis Date: 11/16/2015 02:47 PM		
Client ID: Overburden-01		Run ID: GC9_151116A				SeqNo: 3570757		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	683800	2,500	500000	0	137	70-130	0			S
Surr: Toluene-d8	5782	0	5000	0	116	50-150	0			

MSD		Sample ID: 1511828-01A MSD				Units: µg/Kg		Analysis Date: 11/16/2015 03:12 PM		
Client ID: Overburden-01		Run ID: GC9_151116A				SeqNo: 3570758		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	648300	2,500	500000	0	130	70-130	683800	5.33	30	
Surr: Toluene-d8	5664	0	5000	0	113	50-150	5782	2.06	30	

The following samples were analyzed in this batch:

1511828-01A	1511828-02A	1511828-03A
1511828-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 1511828
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **R176256** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R176256				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568307		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture U 0.050

LCS		Sample ID: LCS-R176256				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568305		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1511827-01B DUP				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568249		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.96 0.050 0 0 0 14.03 0.5 20

DUP		Sample ID: 1511827-10B DUP				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568279		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.34 0.050 0 0 0 13.54 1.49 20

The following samples were analyzed in this batch:

1511828-01B	1511828-02B	1511828-03B
1511828-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

[illegible]

4.2-c

ORIGIN ID: RILA (816) 298-1033
NICK MARTINEZ
ALS ENVIRONMENTAL PARACHUTE
PARACHUTE SERVICE CENTER
127 EAST 1ST ST
PARACHUTE, CO 81835
UNITED STATES US

SHIP DATE: 13NOV15
ACTWGT: 52.00 LB
CAD: 2204840/NET13870
DIMS: 14x28x15 IN
BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

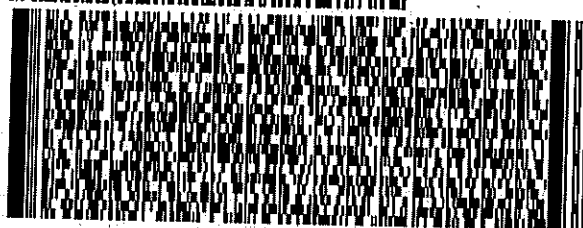
HOLLAND MI 49424

(816) 399-8070
INV
PO: PARACHUTE

REF: 111315-1

DEPT:

539.123553100



FedEx
Express



REL#
3785346

1 of 2

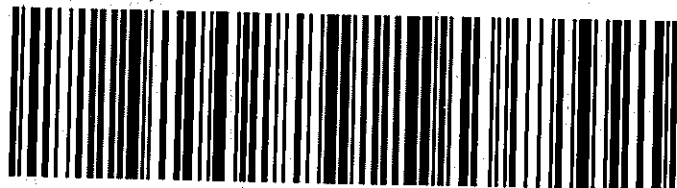
TRK#
0201 **7749 7836 3495**

MASTER

X0 HLMA

SATURDAY 12:00P
PRIORITY OVERNIGHT

49424
MI-US GRR



After printing this label:

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Sample Receipt Checklist

Client Name: LTENV

Date/Time Received: 14-Nov-15 09:45

Work Order: 1511828

Received by: DS

Checklist completed by Diane Shaw 14-Nov-15
eSignature Date

Reviewed by: Chad Whelton 16-Nov-15
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2/4.2 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/14/2015 11:26:23 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



17-Nov-2015

Chris Roy
LT Environmental, Inc
820 Megan Ave. Unit B
Rifle, CO 81650

Re: **Gamma State 14-15D**

Work Order: **1511829**

Dear Chris,

ALS 1 received 4 samples on 14-Nov-2015 09:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Joseph Ribar

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Work Order: 1511829**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1511829-01	EB-04	Soil		11/13/2015 12:40	11/14/2015 09:45	<input type="checkbox"/>
1511829-02	EB-05	Soil		11/13/2015 12:45	11/14/2015 09:45	<input type="checkbox"/>
1511829-03	PB-04	Soil		11/13/2015 12:10	11/14/2015 09:45	<input type="checkbox"/>
1511829-04	PB-05	Soil		11/13/2015 12:30	11/14/2015 09:45	<input type="checkbox"/>

ALS Group USA, Corp**Date:** 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EB-04
Collection Date: 11/13/2015 12:40 PM

Work Order: 1511829
Lab ID: 1511829-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/17/15		Analyst: IT
DRO (C10-C28)	U		1.4	4.3	mg/Kg-dry	1	11/17/2015 17:14
ORO (C28-C40)	U		1.5	4.3	mg/Kg-dry	1	11/17/2015 17:14
Surr: 4-Terphenyl-d14	71.5			39-133	%REC	1	11/17/2015 17:14
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,700	µg/Kg-dry	1	11/16/2015 19:22
Surr: Toluene-d8	106			50-150	%REC	1	11/16/2015 19:22
MOISTURE			Method: E160.3M				Analyst: LR
Moisture	6.4		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EB-05
Collection Date: 11/13/2015 12:45 PM

Work Order: 1511829
Lab ID: 1511829-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	U		1.5	4.5	mg/Kg-dry	1	11/16/2015 23:57
ORO (C28-C40)	U		1.5	4.5	mg/Kg-dry	1	11/16/2015 23:57
Surr: 4-Terphenyl-d14	64.1			39-133	%REC	1	11/16/2015 23:57
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,700	µg/Kg-dry	1	11/16/2015 19:47
Surr: Toluene-d8	110			50-150	%REC	1	11/16/2015 19:47
MOISTURE							
			Method: E160.3M				Analyst: LR
Moisture	6.8		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: PB-04
Collection Date: 11/13/2015 12:10 PM

Work Order: 1511829
Lab ID: 1511829-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	2.4	J	1.4	4.3	mg/Kg-dry	1	11/17/2015 12:24
ORO (C28-C40)	U		1.5	4.3	mg/Kg-dry	1	11/17/2015 12:24
Surr: 4-Terphenyl-d14	62.2			39-133	%REC	1	11/17/2015 12:24
<hr/>							
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,600	µg/Kg-dry	1	11/16/2015 20:37
Surr: Toluene-d8	115			50-150	%REC	1	11/16/2015 20:37
<hr/>							
MOISTURE			Method: E160.3M				Analyst: LR
Moisture	5.2		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 17-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: PB-05
Collection Date: 11/13/2015 12:30 PM

Work Order: 1511829
Lab ID: 1511829-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
DIESEL RANGE ORGANICS BY GC-FID			Method: SW8015M		Prep: SW3550 / 11/14/15		Analyst: IT
DRO (C10-C28)	U		1.5	4.5	mg/Kg-dry	1	11/17/2015 12:51
ORO (C28-C40)	U		1.5	4.5	mg/Kg-dry	1	11/17/2015 12:51
Surr: 4-Terphenyl-d14	62.4			39-133	%REC	1	11/17/2015 12:51
<hr/>							
GASOLINE RANGE ORGANICS BY GC-FID			Method: SW8015D		Prep: SW5035 / 11/14/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,700	µg/Kg-dry	1	11/16/2015 21:02
Surr: Toluene-d8	108			50-150	%REC	1	11/16/2015 21:02
<hr/>							
MOISTURE			Method: E160.3M				Analyst: LR
Moisture	7.8		0.025	0.050	% of sample	1	11/15/2015 20:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: LT Environmental, Inc
Project: Gamma State 14-15D
WorkOrder: 1511829

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

Client: LT Environmental, Inc
Work Order: 1511829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78892** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-78892-78892				Units: mg/Kg		Analysis Date: 11/16/2015 12:32 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570111		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
Surr: 4-Terphenyl-d14	1.266	0	2	0	63.3	39-133	0			

LCS		Sample ID: DLCSS1-78892-78892				Units: mg/Kg		Analysis Date: 11/16/2015 12:59 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570112		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	164.2	5.0	200	0	82.1	61-109	0			
ORO (C28-C40)	162.1	5.0	200	0	81	61-119	0			
Surr: 4-Terphenyl-d14	1.131	0	2	0	56.6	39-133	0			

MS		Sample ID: 1511827-01B MS				Units: mg/Kg		Analysis Date: 11/16/2015 01:27 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570114		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	3890	4.1	164.4	3680	128	48-110	0			SEO
ORO (C28-C40)	204	4.1	164.4	88.98	70	39-140	0			
Surr: 4-Terphenyl-d14	0.964	0	1.644	0	58.6	39-133	0			

MSD		Sample ID: 1511827-01B MSD				Units: mg/Kg		Analysis Date: 11/16/2015 01:54 PM		
Client ID:		Run ID: GC8_151116A				SeqNo: 3570116		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	2907	4.2	166.1	3680	-465	48-110	3890	28.9	30	SEO
ORO (C28-C40)	182	4.2	166.1	88.98	56	39-140	204	11.4	30	
Surr: 4-Terphenyl-d14	1.045	0	1.661	0	62.9	39-133	0.964	8.08	30	

The following samples were analyzed in this batch:

1511829-01B	1511829-02B	1511829-03B
1511829-04B		

Client: LT Environmental, Inc
Work Order: 1511829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **79007** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-79007-79007				Units: mg/Kg		Analysis Date: 11/17/2015 04:14 PM		
Client ID:		Run ID: GC8_151117A				SeqNo: 3572346		Prep Date: 11/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>		1.422	0	2	0	71.1	39-133	0		

LCS		Sample ID: DLCSS1-79007-79007				Units: mg/Kg		Analysis Date: 11/17/2015 04:44 PM		
Client ID:		Run ID: GC8_151117A				SeqNo: 3572347		Prep Date: 11/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	157.3	5.0	200	0	78.7	61-109	0			
ORO (C28-C40)	158.9	5.0	200	0	79.5	61-119	0			
<i>Surr: 4-Terphenyl-d14</i>		1.249	0	2	0	62.5	39-133	0		

The following samples were analyzed in this batch:

1511829-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
 Work Order: 1511829
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **78900** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-78900-78900				Units: µg/Kg		Analysis Date: 11/16/2015 11:24 A		
Client ID:		Run ID: GC9_151116A				SeqNo: 3570750		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	U	2,500								
Surr: Toluene-d8	5084	0	5000	0	102	50-150	0			

LCS		Sample ID: LCS-78900-78900				Units: µg/Kg		Analysis Date: 11/16/2015 10:58 A		
Client ID:		Run ID: GC9_151116A				SeqNo: 3570749		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	524300	2,500	500000	0	105	70-130	0			
Surr: Toluene-d8	4932	0	5000	0	98.6	50-150	0			

MS		Sample ID: 1511828-01A MS				Units: µg/Kg		Analysis Date: 11/16/2015 02:47 PM		
Client ID:		Run ID: GC9_151116A				SeqNo: 3570757		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	683800	2,500	500000	0	137	70-130	0			S
Surr: Toluene-d8	5782	0	5000	0	116	50-150	0			

MSD		Sample ID: 1511828-01A MSD				Units: µg/Kg		Analysis Date: 11/16/2015 03:12 PM		
Client ID:		Run ID: GC9_151116A				SeqNo: 3570758		Prep Date: 11/14/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	648300	2,500	500000	0	130	70-130	683800	5.33	30	
Surr: Toluene-d8	5664	0	5000	0	113	50-150	5782	2.06	30	

The following samples were analyzed in this batch:

1511829-01A	1511829-02A	1511829-03A
1511829-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 1511829
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **R176256** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R176256				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568307		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture U 0.050

LCS		Sample ID: LCS-R176256				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568305		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1511827-01B DUP				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568249		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.96 0.050 0 0 0 14.03 0.5 20

DUP		Sample ID: 1511827-10B DUP				Units: % of sample		Analysis Date: 11/15/2015 08:30 PM		
Client ID:		Run ID: MOIST_151115A				SeqNo: 3568279		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.34 0.050 0 0 0 13.54 1.49 20

The following samples were analyzed in this batch:

1511829-01B	1511829-02B	1511829-03B
1511829-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group		CHAIN OF CUSTODY				DOC number (for client tracking)	
Failure to complete all section of this form may delay analysis.		Page		1 of 1			
CLIENT CONTACT AND REPORTING INFORMATION		INVOICE ADDRESS (if other than reporting address)		ANALYSIS REQUIRED (suite codes must be listed to attract suite prices)			
Company Name: LT Environmental		Company Name: SAME		BTEX TPH GRO/DRO/ORO Table 910-1 PAHs 8270 SIM EC PH SAR Table 910-1 Metals: As, Ba, Cd, Cr III, Cr VI, Cu, Pb, Hg, Ni, Se, Ag, Zn Total Arsenic 8020			
Project Manager: Chris Roy		Contact Name: SAME					
Address: 4600 West 60th Ave		Address: SAME					
Arvada, CO 80003							
Phone: 303-433-9788							
Email: croy@ltenv.com, wtoews@ltenv.com		Project ID: 039615002					
Sampler Name (Print): Wesley Toews		Site: Gamma State 14-15D					
SERVICE REQUEST (Express services subject to availability)		PO No:					
<input type="checkbox"/> Regular (default) 5-day Standard TAT		ALS Quote No:					
<input checked="" type="checkbox"/> Express (Pls specify date required <u>same day</u>) (express fee will apply)							
SAMPLE IDENTIFICATION (this description will appear on report)		Depth (ft)	SAMPLING AND CONTAINER INFO			CROSS THE REQUESTED ANALYSIS	
ALS ID #			Date	Time	Tot Bottle	Matrix	
1	EB-04	0-2"	11-13-15	1240	2	S	X
2	EB-05	↓	↓	1245	↓	S	X
3	PB-04	↓	↓	1210	↓	S	X
4	PB-05	↓	↓	1230	↓	S	X
CLIENT SIGNATURES		For lab use only					
Client's Signature: <u>[Signature]</u>		Cooler Security Seal	Sample Temp		No of Cooler Received	Received by (lab) <u>[Signature]</u> 11/14/15	
		<input type="checkbox"/> sealed	<input type="checkbox"/> chilled deg 'C		carton / cooler box		
Client's Date and Time of Completion: 11-13-15 1330		<input type="checkbox"/> broken	<input type="checkbox"/> ambient		Courier Name: <u>N.M.</u>	Committed by <u>[Signature]</u> Date and Time	
		<input type="checkbox"/> not available					
Note: (a) DW (Drinking water), SW (Surface water), GW (Ground water), WW (Waste water), S (Soil), SL (Sludge), SE (Sediment), OS (Other solid material)							

4.2.0

ORIGIN ID: RILA (816) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81835
 UNITED STATES US

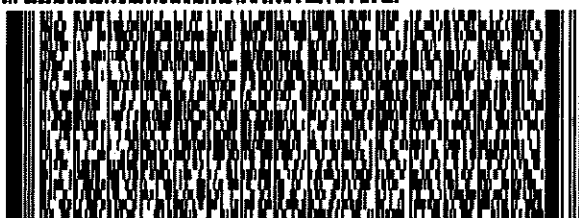
SHIP DATE: 13 NOV 15
 ACTWGT: 52.00 LB
 CAD: 2284840 NET 3870
 DIMS: 14x26x15 IN
 BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424

(816) 399-8070 REF: 111315-1
 INV: DEPT:
 PO: PARACHUTE

539.023F5631D0



FedEx
 Express



REL#
 3785346

1 of 2
 TRK# 7749 7836 3495
 0201
 ## MASTER ##

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 HLMA

49424
MI-US GRR



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Sample Receipt Checklist

Client Name: LTENV

Date/Time Received: 14-Nov-15 09:45

Work Order: 1511829

Received by: DS

Checklist completed by Diane Shaw 14-Nov-15
eSignature Date

Reviewed by: Chad Whelton 16-Nov-15
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2/4.2 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/14/2015 11:42:25 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



19-Nov-2015

Chris Roy
LT Environmental, Inc
820 Megan Ave. Unit B
Rifle, CO 81650

Re: **Gamma State 14-15D**

Work Order: **1511980**

Dear Chris,

ALS Environmental received 1 sample on 18-Nov-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Les Arnold".

Electronically approved by: Chad Whelton

Les Arnold
Senior Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Work Order: 1511980**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1511980-01	EB-06	Soil		11/16/2015 15:30	11/18/2015 09:30	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Gamma State 14-15D
WorkOrder: 1511980

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 19-Nov-15

Client: LT Environmental, Inc
Project: Gamma State 14-15D
Sample ID: EB-06
Collection Date: 11/16/2015 03:30 PM

Work Order: 1511980
Lab ID: 1511980-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3541 / 11/18/15		Analyst: IT
DRO (C10-C28)	U		1.5	4.4	mg/Kg-dry	1	11/18/2015 21:29
ORO (C28-C40)	U		1.5	4.4	mg/Kg-dry	1	11/18/2015 21:29
Surr: 4-Terphenyl-d14	60.6			39-133	%REC	1	11/18/2015 21:29
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/18/15		Analyst: IT
GRO (C6-C10)	U		1,300	2,700	µg/Kg-dry	1	11/18/2015 17:41
Surr: Toluene-d8	99.5			50-150	%REC	1	11/18/2015 17:41
MOISTURE							
			Method: E160.3M				Analyst: TM
Moisture	7.3		0.025	0.050	% of sample	1	11/18/2015 14:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Nov-15

Client: LT Environmental, Inc
Work Order: 1511980
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **79093** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-79093-79093				Units: mg/Kg		Analysis Date: 11/18/2015 06:59 PM		
Client ID:		Run ID: GC8_151118A				SeqNo: 3575436		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	5.0								
ORO (C28-C40)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>	<i>1.105</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>55.3</i>	<i>39-133</i>	<i>0</i>			

LCS		Sample ID: DLCSS1-79093-79093				Units: mg/Kg		Analysis Date: 11/18/2015 07:29 PM		
Client ID:		Run ID: GC8_151118A				SeqNo: 3575438		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	162.1	5.0	200	0	81.1	61-109	0			
ORO (C28-C40)	161.7	5.0	200	0	80.8	61-119	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>1.049</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>52.5</i>	<i>39-133</i>	<i>0</i>			

MS		Sample ID: 1511976-03B MS				Units: mg/Kg		Analysis Date: 11/18/2015 08:00 PM		
Client ID:		Run ID: GC8_151118A				SeqNo: 3575440		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	126.2	4.1	165.4	354.6	-138	48-110	0			S
ORO (C28-C40)	74.54	4.1	165.4	24.67	30.1	39-140	0			S
<i>Surr: 4-Terphenyl-d14</i>	<i>0.7172</i>	<i>0</i>	<i>1.654</i>	<i>0</i>	<i>43.4</i>	<i>39-133</i>	<i>0</i>			

MSD		Sample ID: 1511976-03B MSD				Units: mg/Kg		Analysis Date: 11/18/2015 08:29 PM		
Client ID:		Run ID: GC8_151118A				SeqNo: 3575442		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	324.7	4.1	165.3	354.6	-18.1	48-110	126.2	88.1	30	SR
ORO (C28-C40)	124.8	4.1	165.3	24.67	60.6	39-140	74.54	50.4	30	R
<i>Surr: 4-Terphenyl-d14</i>	<i>1.209</i>	<i>0</i>	<i>1.653</i>	<i>0</i>	<i>73.1</i>	<i>39-133</i>	<i>0.7172</i>	<i>51.1</i>	<i>30</i>	<i>R</i>

The following samples were analyzed in this batch: 1511980-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
 Work Order: 1511980
 Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **79079** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-79079-79079				Units: µg/Kg		Analysis Date: 11/18/2015 12:40 PM		
Client ID:		Run ID: GC9_151118A				SeqNo: 3574771		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	U	2,500								
Surr: Toluene-d8	4600	0	5000	0	92	50-150	0			

LCS		Sample ID: LCS-79079-79079				Units: µg/Kg		Analysis Date: 11/18/2015 12:15 PM		
Client ID:		Run ID: GC9_151118A				SeqNo: 3574770		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	536900	2,500	500000	0	107	70-130	0			
Surr: Toluene-d8	5001	0	5000	0	100	50-150	0			

MS		Sample ID: 1511943-10A MS				Units: µg/Kg		Analysis Date: 11/18/2015 03:36 PM		
Client ID:		Run ID: GC9_151118A				SeqNo: 3574778		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	541200	2,500	500000	0	108	70-130	0			
Surr: Toluene-d8	5098	0	5000	0	102	50-150	0			

MSD		Sample ID: 1511943-10A MSD				Units: µg/Kg		Analysis Date: 11/18/2015 04:01 PM		
Client ID:		Run ID: GC9_151118A				SeqNo: 3574972		Prep Date: 11/18/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	550000	2,500	500000	0	110	70-130	541200	1.62	30	
Surr: Toluene-d8	5200	0	5000	0	104	50-150	5098	1.98	30	

The following samples were analyzed in this batch: 1511980-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 1511980
Project: Gamma State 14-15D

QC BATCH REPORT

Batch ID: **R176563** Instrument ID **MOIST** Method: **E160.3M**

MBLK				Sample ID: WBLKS-R176563				Units: % of sample			Analysis Date: 11/18/2015 02:41 PM			
Client ID:				Run ID: MOIST_151118C				SeqNo: 3576359			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Moisture	0.03	0.050								J				

LCS				Sample ID: LCS-R176563				Units: % of sample			Analysis Date: 11/18/2015 02:41 PM			
Client ID:				Run ID: MOIST_151118C				SeqNo: 3576355			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Moisture		99.99	0.050	100	0	100	99.5-100.5	0						

DUP				Sample ID: 1511759-01A DUP				Units: % of sample			Analysis Date: 11/18/2015 02:41 PM			
Client ID:				Run ID: MOIST_151118C				SeqNo: 3576307			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Moisture	14.74	0.050	0	0	0		14.98	1.62	20					

DUP		Sample ID: 1511973-01B DUP				Units: % of sample		Analysis Date: 11/18/2015 02:41 PM		
Client ID:		Run ID: MOIST_151118C				SeqNo: 3576332		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.52	0.050	0	0	0		20.07	2.78	20	

The following samples were analyzed in this batch:

1511980-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



CHAIN OF CUSTODY



Failure to complete all section of this form may delay analysis.

GOC number (for client tracking)

Page 1 of 1

CLIENT CONTACT AND REPORTING INFORMATION		INVOICE ADDRESS (if other than reporting address)	ANALYSIS REQUIRED (suite codes must be listed to attract suite prices)																
Company Name:	LT Environmental	Company Name:	SAME		BTEX	TPH	GRO/DRO/ORO	Table 910-1 PAHs 8270 SIM	EC	PH	SAR	Table 910-1 Metals: As, Ba, Cd, Cr III, Cr VI, Cu, Pb, Hg, Ni, Se, Ag, Zn	Total Arsenic 6020						
Project Manager:	Chris Roy	Contact Name:	SAME																
Address:	4600 West 60th Ave	Address:	SAME																
Arvada, CO 80003																			
Phone:	303-433-9788	PROJECT INFORMATION																	
Email:	croy@ltenv.com, wtoews@ltenv.com	Project ID:	039615002																
Sampler Name (Print):	Wesley Toews	Site:	Gamma State 14-15D																
SERVICE REQUESTS (Express services subject to availability)		PO No:																	
<input type="checkbox"/> Regular (default)	5-day Standard TAT	ALS Quote No:																	
<input checked="" type="checkbox"/> Express	(Pls specify date required <u>next day</u>) (express fee will apply)																		

[illegible]

CLIENT SIGNATURES		For lab use only			
Client's Signature: 	Cooler Security Seal <input type="checkbox"/> sealed	Sample Temp <input type="checkbox"/> chilled deg °C	No of Cooler Received carton / cooler box	Received by (lab) 	Date and Time 11/18/15 09
Client's Date and Time of Completion: 11-17-15 1350	<input type="checkbox"/> broken <input type="checkbox"/> not available	<input type="checkbox"/> ambient	Courier Name	Committed by	Date and Time

Note: (a) DW (Drinking water), SW (Surface water), GW (Ground water), WW (Waste water), S (Soil), SL (Sludge), SE (Sediment), OS (Other solid material)

5.6°C

FedEx NEW Package
Express® US Airbill

Tracking Number 8054 6786 8805

1-17-15

Nesley Toews

Phone 303 433-9788

Company LT Environmental

Address 4600 West 60th Ave

City Arvada

State CO ZIP 80003

2 Your Internal Billing Reference

039615002

3 To

Recipient's Name Sample Receiving

Company ALS Laboratory

Address 3352 128th Ave

Address Use this line for the HOLD location address or for continuation of your shipping address

City Holland

HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.
HOLD Saturday
FedEx location address
Available ONLY for
dry Overnight and
in select areas.

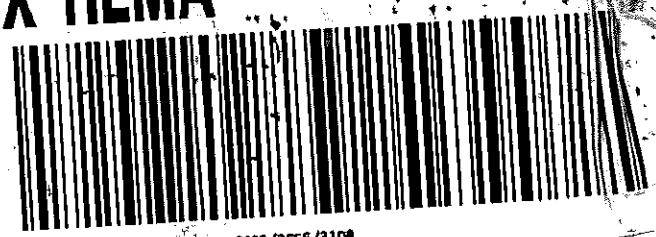
FedEx

TRK# 8054 6786

8054 6786 8805

NIGHT

XX HLMA



FD 375328 17NOV15 S8SA 639C2/3F56/31D0



4 Express Package Service

NOTE: Service under has changed. Please select carefully.

Packages up to 750 lbs.
For packages over 750 lbs., use the new
FedEx Express Freight® US Airbill

Next Business Day

☐ FedEx First Overnight
Earliest next business morning delivery to select
locations. Friday shipments will be delivered on
Monday unless SATURDAY Delivery is selected.

☒ FedEx Priority Overnight
Next business morning. Friday shipments will be
delivered on Monday unless SATURDAY Delivery
is selected.

☐ FedEx Standard Overnight
Next business morning.
Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M.
Second business morning.
Saturday Delivery NOT available.

☐ FedEx 2Day
Second business afternoon. Thursday shipments
will be delivered on Monday unless SATURDAY
Delivery is selected.

☐ FedEx Express Saver
Third business day.
Saturday Delivery NOT available.

5 Packaging

☐ FedEx Envelope

☐ FedEx Pak

☐ FedEx Box

☐ FedEx Tube

☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☒ No Signature Required
No signature required for delivery.

☐ Direct Signature
Business at recipient's address
may sign for delivery. Fee applies.

☐ Indirect Signature
If no one is available at recipient's
address, someone at a neighboring
address may sign for delivery. Fee
mandatory delivery only. Fee applies.

Does this shipment contain dangerous goods?

☒ No

☐ Yes
As per attached
Shipper's Declaration.

☐ Yes
Shipper's Declaration
not required.

☐ Dry Ice
Dry Ice, 9 UN1845

☐ Cargo Aircraft Only

Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Weight 5.0
Signature of Shipper (Signature of the current FedEx Service Agent for the shipper)

644

5.60c

Sample Receipt Checklist

Client Name: LTENV

Date/Time Received: 18-Nov-15 09:30

Work Order: 1511980

Received by: DS

Checklist completed by *Diane Shaw* 18-Nov-15
eSignature Date

Reviewed by: *Lee Arnold* 18-Nov-15
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.6/5.6 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/18/2015 10:57:32 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

ATTACHMENT 2
WASTE MANIFESTS



Bill To:

SOUTHWESTERN ENERGY

P.O. BOX 672625

HOUSTON

TX 77267



5/26/2016

Batch ID: **SOUENE160526**

Remit To:

RN Trucking

PO Box 98

Roosevelt, UT 84066

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
5/24/2016	RHETTS	404546	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/25/2016	RHETTS	404144	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/25/2016	RHETTS	404148	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/24/2016	RHETTS	404149	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/24/2016	RHETTS	403992	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/24/2016	RHETTS	404145	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/25/2016	RHETTS	403994	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/25/2016	RHETTS	404146	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/20/2016	RHETTS	403986	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/20/2016	RHETTS	403998	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/20/2016	RHETTS	403999	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/20/2016	RHETTS	404000	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/20/2016	RHETTS	404130	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/20/2016	RHETTS	404131	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/20/2016	RHETTS	404132	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/21/2016	RHETTS	403982	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/21/2016	RHETTS	403983	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/21/2016	RHETTS	403984	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404133	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404134	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404135	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404136	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404137	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404138	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/23/2016	RHETTS	403987	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404141	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/23/2016	RHETTS	404142	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
5/24/2016	RHETTS	403990	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/24/2016	RHETTS	403991	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/24/2016	RHETTS	404139	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/24/2016	RHETTS	404140	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/24/2016	RHETTS	404544	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/24/2016	RHETTS	404545	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403954	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403955	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403957	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403958	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403959	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403960	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403963	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403964	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403965	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403966	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403967	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/18/2016	RHETTS	403968	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403969	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403970	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403971	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403972	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403973	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403974	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403975	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403976	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403978	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403979	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/19/2016	RHETTS	403980	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/20/2016	RHETTS	403977	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/20/2016	RHETTS	403981	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/20/2016	RHETTS	403985	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/23/2016	RHETTS	403997	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
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Comments:

Total Count: 1320

Total Charges:

AFE/WO Number:

Code Number:

User Number:

Approved by:

Name:

Title:

Date:

Bill To:

SOUTHWESTERN ENERGY

P.O. BOX 672625

HOUSTON

TX 77267



5/5/2016

Batch ID: **SOUENE160505**

Remit To:

RN Trucking

PO Box 98

Roosevelt, UT 84066

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
4/25/2016	RHETTS	404540	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/25/2016	RHETTS	404549	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/25/2016	RHETTS	404542	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/25/2016	RHETTS	404543	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/25/2016	RHETTS	404550	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/25/2016	RHETTS	404556	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/27/2016	RHETTS	404552	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
4/27/2016	RHETTS	404553	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404567	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404568	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404569	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404570	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404571	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404572	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404573	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404574	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404575	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404576	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404577	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404578	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404579	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/3/2016	RHETTS	404580	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	72	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404554	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404557	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	18	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404565	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/2/2016	RHETTS	404566	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
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Comments:

Total Count: 590

Total Charges: [REDACTED]

AFE/WO Number:

Code Number:

User Number:

Approved by: _____

Name: _____

Title: _____

Date: _____

Bill To:

SOUTHWESTERN ENERGY

P.O. BOX 672625

HOUSTON

TX

77267



5/12/2016

Batch ID **SOUENE160512**

Remit To:

RN Trucking

PO Box 98

Roosevelt, UT 84066

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
5/2/2016	RHETTS	409417	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	40	YRD		Category4 (YRD)	
5/3/2016	RHETTS	409353	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	40	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404560	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404588	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404597	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	60	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404598	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	72	YRD		Category4 (YRD)	
5/6/2016	RHETTS	404599	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/6/2016	RHETTS	404600	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/6/2016	RHETTS	404601	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/6/2016	RHETTS	404602	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/6/2016	RHETTS	404603	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/6/2016	RHETTS	404604	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404581	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404582	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404583	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404558	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404587	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404585	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	60	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404584	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404555	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404589	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404559	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/5/2016	RHETTS	404563	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/4/2016	RHETTS	404586	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	72	YRD		Category4 (YRD)	

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
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Comments:

Total Count: 740

Total Charges:

AFE/WO Number:

Code Number:

User Number:

Approved by:

Name:

Title:

Date:

Bill To:

SOUTHWESTERN ENERGY

P.O. BOX 672625

HOUSTON

TX

77267



5/19/2016

Batch ID **SOUENE160519**

Remit To:

RN Trucking

PO Box 98

Roosevelt, UT 84066

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
5/12/2016	RHETTS	403928	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/13/2016	RHETTS	403935	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/13/2016	RHETTS	404564	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403936	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403941	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403942	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403943	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403944	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403945	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403946	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403947	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403948	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/14/2016	RHETTS	403949	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/15/2016		403937	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403938	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403939	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403940	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403950	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403951	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403952	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/15/2016	RHETTS	403953	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	403919	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	403920	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	403921	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	403922	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	403923	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	404590	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	

Date	Hauled by	Ticket #	Well Location	Disposal	Commodity	QTY	Unit	Rate	Charge Type	Charge
5/11/2016	RHETTS	404605	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/11/2016	RHETTS	404606	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/11/2016	RHETTS	404607	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/11/2016	RHETTS	404608	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403924	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403925	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403927	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403929	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/12/2016	RHETTS	404591	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/12/2016	RHETTS	404592	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403926	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403930	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403931	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/12/2016	RHETTS	403932	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/12/2016	RHETTS	404595	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/13/2016	RHETTS	403933	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/13/2016	RHETTS	403934	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	20	YRD		Category4 (YRD)	
5/13/2016	RHETTS	404561	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/13/2016	RHETTS	404562	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/13/2016	RHETTS	404593	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	
5/13/2016	RHETTS	404594	14-15D GAMMA STATE	Piceance Creek	Drill Cuttings	24	YRD		Category4 (YRD)	

Comments:

Total Count: 1056

Total Charges:

AFE/WO Number:

Code Number:

User Number:

Approved by: _____

Name: _____

Title: _____

Date: _____