



October 21, 2015

Scott Ghan
Senior EH&S Specialist
Vanguard Operating, LLC
112 Red Feather Trail
Silt, CO 81652

**RE: Pipeline Release SESW Sec 25 6S 92W - Scott (Spill/Release Point ID – 442980)
Vanguard Operating, LLC
SESW Sec. 25 T6S R92W
Garfield County, Colorado**

Dear Mr. Ghan:

LT Environmental, Inc. (LTE) was contracted by Vanguard Operating, LLC (Vanguard) to conduct surface water and soil sampling activities associated with a pipeline release in Garfield County, Colorado. The following is being submitted as supplemental information to the initial Form 19 submitted September 25, 2015, (Document #400889511, Spill/Release Point ID – 442980).

Sampling Activities

On August 24, 2015, LTE personnel conducted soil sampling activities of the release path and surface water sampling from Divide Creek. During on site activities, three seeps of water (Seep 01, Seep 02, and Seep 03) were identified along the release path in the pipeline right of way. Soil sample SS01 was collected at the approximate terminus of the release between the release point and Divide Creek. Additionally, three surface water samples were collected from Divide Creek; one down gradient from the release (DIVIDE CREEK 01), one up gradient from the release (DIVIDE CREEK 02), and one from the nearest point to Divide Creek (OXBOW 01). The release path, soil sample locations, and surface water sample locations are depicted on the attached Figure 1. All samples were submitted to ALS of Holland, Michigan, and were analyzed for constituents identified in Colorado Oil & Gas Conservation Commission (COGCC) Table 910-1.

On August 25, 2015, LTE personnel returned to collect additional soil samples. One soil sample was collected from the area near Seep 01 and three soil confirmation samples (SS01, SS02, and SS02) were collected from the excavation along the release path between Seep 01 and Divide Creek. At the time of sample collection, the excavation measured approximately 15 feet (ft.), by 20 ft., and ranged from 1 ft. to 4.5 ft. deep. The excavation area and soil sample locations are depicted on the attached Figure 2.

On August 26, 2015, LTE personnel returned to the site to collect additional soil confirmation samples after continued excavation activities. Excavation activities occurred in the area of the



three seeps identified on August 24, 2015. At the time of sample collection, the excavated area measured approximately 15 ft., by 75 ft., and ranged from 3 ft. to 6 ft. deep. Six soil confirmation samples (SB01, NB01, MSW01, NSW01, MB01, and SSW01) were collected from the excavation sidewalls and bottom. The excavation area and soil sample locations are depicted on the attached Figure 3.

On September 1, 2015, LTE personnel returned to the site in an attempt to vertically delineate electrical conductivity (EC) and sodium adsorption ratio (SAR) exceedances in soil sample SS01. Soil samples were collected at 3.0 feet below ground surface (bgs) (SS01@3') and 4.5 feet bgs (SS01@4.5') using a hand auger. Additionally, two composite soil samples (COMP-T, COMP-SP) were collected from the excavated soil stockpiled on Vanguard's Miller 1 pad.

On September 8, 2015, LTE personnel returned to the site after the excavation was backfilled and collected a surface water sample (Seep 01 Surface Water) from the Seep 01 location at the request of the surface owner. The sample location is depicted on the attached Figure 4. All samples were submitted to ALS and were analyzed for constituents identified in COGCC Table 910-1.

Analytical Results

Laboratory analytical results of soil confirmation samples indicated concentrations of analytes that are either within COGCC Table 910-1 allowable concentrations or are within 1.25 x background concentrations observed in the area, with the exception of EC, pH, and SAR exceedances. Laboratory analytical results of the stockpile composite samples indicate concentrations of arsenic, pH, EC, and SAR in exceedance of COGCC Table 910-1 allowable concentrations. Soil laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as an attachment.

Laboratory analytical results of all surface water samples indicated concentrations of analytes within COGCC Table 910-1 allowable concentrations. Surface water laboratory analytical results are summarized in Table 2 and laboratory analytical reports are included as an attachment.

Summary and Conclusions

On August 24 and September 8, 2015, soil sampling, surface water sampling and excavation activities occurred in response to pipeline release (Spill/Release Point ID – 442980) in Garfield County, Colorado. Soil samples were collected from the release path, excavated area, and soil stockpiles and submitted for laboratory analysis of constituents identified in COGCC Table 910-1. Additionally, surface water samples were collected from Divide Creek and the Seep 01 location and submitted for laboratory analysis of constituents identified in COGCC Table 910-1.

Laboratory analytical results of soil confirmation and stockpile samples indicate concentrations of analytes that either with COGCC Table 910-1 allowable concentrations levels or are within 1.25 x background concentrations observed in the area, with the exception of EC, pH, and SAR exceedances.



Laboratory analytical results of the surface water samples collected from Divide Creek indicate concentrations of analytes that are either below the laboratory detection limit or compliant with COGCC Table 910-1 allowable concentrations.

Laboratory analytical results of the surface water sample collected from Seep 01 indicate concentrations of analytes that are either below the laboratory detection limit or compliant with COGCC Table 910-1 allowable concentrations. In correspondence with the COGCC following review of laboratory analytical results, Mr. Carlos Lujan expressed that evidence suggests the seep is natural and not produced water from this pipeline release.

Following approval from the COGCC, the excavation area was backfilled with clean imported fill material to match the existing grade. No groundwater was encountered during excavation activities. The stockpile of excavated material from the release area will be incorporated into the Miller 1 production pad and buried beneath at least 3 ft. of native soil due to the EC, pH, and SAR exceedances.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'Chris McKisson'.

Chris McKisson
Project Environmental Scientist

A handwritten signature in black ink, appearing to read 'Robert D. Fishburn'.

Robert D. Fishburn, P.G.
Sr. Hydrogeologist

Attachments:

Figure 1 – Site Map 8/24/2015
Figure 2 – Site Map 8/25/2015
Figure 3 – Site Map 8/26/2015
Figure 4 – Site Map 9/8/2015
Table 1 – Soil Analytical Results
Table 2 – Surface Water Analytical Results
Attachment – Laboratory Analytical Reports

FIGURES





IMAGE COURTESY OF ESRI

LEGEND

- SOIL SAMPLE
- SEEP
- ▲ SURFACE WATER SAMPLE
- RELEASE PATH

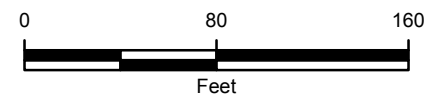


FIGURE 1
SITE MAP (8/24/2015)
PIPELINE RELEASE SESW SEC 25 6S 92W-SCOTT
GARFIELD COUNTY, COLORADO

VANGUARD OPERATING, LLC





IMAGE COURTESY OF ESRI

LEGEND

● SOIL SAMPLE

○ SEEP

--- EXCAVATION EXTENT (8/25/2015)

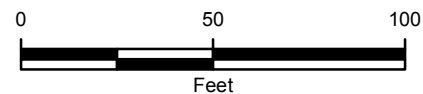


FIGURE 2
SITE MAP (8/25/2015)
PIPELINE RELEASE SESW SEC 25 6S 92W-SCOTT
GARFIELD COUNTY, COLORADO

VANGUARD OPERATING, LLC





IMAGE COURTESY OF ESRI

LEGEND

● SOIL SAMPLE

⊙ SEEP

--- EXCAVATION EXTENT (8/26/2015)

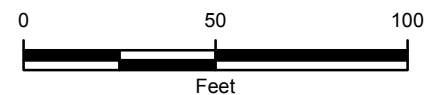


FIGURE 3
SITE MAP (8/26/2015)
PIPELINE RELEASE SESW SEC 25 6S 92W-SCOTT
GARFIELD COUNTY, COLORADO

VANGUARD OPERATING, LLC





IMAGE COURTESY OF ESRI

LEGEND

- SEEP
- SURFACE WATER SAMPLE

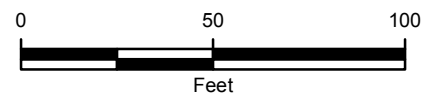


FIGURE 4
SITE MAP (9/8/2015)
PIPELINE RELEASE SESW SEC 25 6S 92W-SCOTT
GARFIELD COUNTY, COLORADO

VANGUARD OPERATING, LLC



TABLE

TABLE 1
PIPELINE RELEASE SESW SEC 25 6S 92W-SCOTT
SOIL ANALYTICAL RESULTS
GARFIELD COUNTY, COLORADO
VANGUARD OPERATING, LLC.

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	SS01	Seep 01	SS 01	SS 02	SS 03	SB01	SSW01
Sample Date			8/24/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/26/2015	8/26/2015
Sample Type			Grab	Grab	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
Sample Depth		feet	Surface	Surface	1	4.5	3.5	6	3
Arsenic	0.39	mg/kg	8.1	14	4.3	3.2	4.3	3.2	2.9
Barium	15,000	mg/kg	160	140	190	130	120	150	160
Cadmium	70	mg/kg	<0.93	<0.85	<0.87	<0.86	<0.78	<0.84	<0.76
Chromium (III)	120,000	mg/kg	17	6.7	8.2	6.2	5.4	6.7	6.2
Chromium (VI)	23	mg/kg	<1.2	<1.2	<1.1	<1.1	1.2	<1.0	<1.0
Copper	3,100	mg/kg	26	11	9.2	8.3	7.7	8.4	6.7
Lead	400	mg/kg	8.6	8.4	7.0	7.0	6.0	5.9	5.3
Mercury	23	mg/kg	0.045	0.025	<0.016	0.020	<0.014	0.014	<0.014
Nickel	1,600	mg/kg	16	16	18	15	15	20	18
Selenium	390	mg/kg	<0.93	2.2	<0.87	<0.86	1.3	1.4	1.1
Silver	390	mg/kg	<0.47	<0.43	<0.44	<0.43	<0.39	<0.42	<0.38
Zinc	23,000	mg/kg	61	31	33	25	25	24	20
EC	4.0	mmhos/cm	5.4	7.8	7.6	8.6	14	7.4	12
pH	6 - 9	SU	9.6	8.5	8.7	9.2	9.2	9.2	8.9
SAR	12	unitless	97	81	53	140	210	73	43
TPH-GRO		mg/kg	<2.9	130	<2.9	<2.9	<2.9	<2.7	<2.7
TPH-DRO		mg/kg	<4.8	52	21	<4.8	<4.8	<4.4	<4.4
TPH	500	mg/kg	<4.8	182	21	<4.8	<4.8	<4.4	<4.4
Benzene	0.17	mg/kg	<0.035	0.55	<0.035	<0.035	<0.034	<0.032	<0.032
Toluene	85	mg/kg	<0.035	4.0	<0.035	<0.035	<0.034	<0.032	<0.032
Ethylbenzene	100	mg/kg	<0.035	0.43	<0.035	<0.035	<0.034	<0.032	<0.032
Total Xylenes	175	mg/kg	<0.11	7.0	<0.11	<0.10	<0.10	<0.095	<0.096
Acenaphthene	1000	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Anthracene	1000	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Benzo(A)anthracene	0.22	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Benzo(B)fluoranthene	0.22	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Benzo(K)fluoranthene	2.2	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Benzo(A)pyrene	0.022	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Chrysene	22	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Fluoranthene	1000	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Fluorene	1000	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Naphthalene	23	mg/kg	<0.0077	0.034	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070
Pyrene	1000	mg/kg	<0.0077	<0.0080	<0.0077	<0.0077	<0.0076	<0.0071	<0.0070

NOTES:

< - less than the stated reporting limit

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

EC- electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

SAR - Sodium Adsorption Ratio

SU - standard unit

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH - combination of TPH-GRO and TPH-DRO

NA - not analyzed

TABLE 1
PIPELINE RELEASE SESW SEC 25 6S 92W-SCOTT
SOIL ANALYTICAL RESULTS
GARFIELD COUNTY, COLORADO
VANGUARD OPERATING, LLC.

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	MB01	MSW01	NB01	NSW01	SS01@3'	SS01@4.5'	COMP-T	COMP-SP
Sample Date			8/26/2015	8/26/2015	8/26/2015	8/26/2015	9/1/2015	9/1/2015	9/1/2015	9/1/2015
Sample Type			Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Composite	Composite
Sample Depth		feet	6	3	6	3	3	4.5	NA	NA
Arsenic	0.39	mg/kg	4.9	4.3	4.6	5.5	NA	NA	4.4	4.9
Barium	15,000	mg/kg	100	190	510	120	NA	NA	150	270
Cadmium	70	mg/kg	<0.77	<0.89	<0.89	<0.77	NA	NA	<0.79	<0.88
Chromium (III)	120,000	mg/kg	7.9	7.4	12.0	11.0	NA	NA	7.2	8.5
Chromium (VI)	23	mg/kg	<1.2	<1.0	<1.1	<1.1	NA	NA	<1.0	<1.1
Copper	3,100	mg/kg	11	9.8	15	16	NA	NA	9.6	12
Lead	400	mg/kg	7.4	6.7	5.7	5.1	NA	NA	5.8	6.8
Mercury	23	mg/kg	0.025	0.022	<0.014	0.016	NA	NA	0.028	0.024
Nickel	1,600	mg/kg	23	21	32	30	NA	NA	21	23
Selenium	390	mg/kg	4.4	1.3	<0.89	<0.77	NA	NA	1.2	1.3
Silver	390	mg/kg	<0.39	<0.44	<0.45	<0.39	NA	NA	<0.40	<0.44
Zinc	23,000	mg/kg	28	27	47	41	NA	NA	27	32
EC	4.0	mmhos/cm	5.5	7.6	3.7	6.4	6.4	7.8	8.6	9.6
pH	6 - 9	SU	9.2	9.0	9.5	9.2	9.0	9.4	9.4	9.2
SAR	12	unitless	140	54	78	110	52	57	40	63
TPH-GRO		mg/kg	<2.9	<2.8	<2.8	<2.8	NA	NA	<2.8	<2.8
TPH-DRO		mg/kg	11	17	<4.4	<4.7	NA	NA	31	31
TPH	500	mg/kg	11	17	<4.4	<4.7	NA	NA	31	31
Benzene	0.17	mg/kg	<0.035	<0.033	<0.033	<0.034	NA	NA	<0.034	<0.034
Toluene	85	mg/kg	0.044	<0.033	<0.033	<0.034	NA	NA	<0.034	<0.034
Ethylbenzene	100	mg/kg	<0.035	<0.033	<0.033	<0.034	NA	NA	<0.034	<0.034
Total Xylenes	175	mg/kg	0.11	<0.10	<0.099	<0.10	NA	NA	<0.10	<0.10
Acenaphthene	1000	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Anthracene	1000	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Benzo(A)anthracene	0.22	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Benzo(B)fluoranthene	0.22	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Benzo(K)fluoranthene	2.2	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Benzo(A)pyrene	0.022	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Chrysene	22	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Fluoranthene	1000	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Fluorene	1000	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Naphthalene	23	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073
Pyrene	1000	mg/kg	<0.0076	<0.0073	<0.0071	<0.0076	NA	NA	<0.0073	<0.0073

NOTES:

< - less than the stated reporting limit

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

EC - electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

SAR - Sodium Adsorption Ratio

SU - standard unit

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH - combination of TPH-GRO and TPH-DRO

NA - not analyzed

TABLE 2
PIPELINE RELEASE SESW SEC25 6S 92W-SCOTT
SURFACE WATER ANALYTICAL RESULTS
GARFIELD COUNTY, COLORADO
VANGUARD OPERATING, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Chloride mg/L	Sulfate mg/L	TDS mg/L
Oxbow01	8/24/2015	<1.0	<1.0	<1.0	<3.0	14	55	960
Divide Creek 01	8/24/2015	<1.0	<1.0	<1.0	<3.0	72	110	470
Divide Creek 02	8/24/2015	<1.0	<1.0	<1.0	<3.0	14	55	450
Seep 01 Surface Water	9/8/2015	<1.0	<1.0	<1.0	<3.0	38	190	1,400
COGCC CONCENTRATION LEVELS		5	560	700	1400	<1.25 x background	<1.25 x background	<1.25 x background

Notes:

< - less than the stated reporting limit

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

mg/L - milligrams per liter

TDS - total dissolved solids



ATTACHMENT
LABORATORY ANALYTICAL RESULTS





08-Sep-2015

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

Re: **Piepline Release SESW Sec 25 6S 92W-Scott**

Work Order: **1509124**

Dear Rob,

ALS Environmental received 2 samples on 02-Sep-2015 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 FG

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

Sincerely,

A handwritten signature in black ink, appearing to read "Les Arnold".

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



10-Sep-2015

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

Re: **Pipeline Release SESW SEC25 6S 92W-Scott**

Work Order: **1509414**

Dear Rob,

ALS Environmental received 2 samples on 09-Sep-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 15.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Les Arnold".

Electronically approved by: Les Arnold

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

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26-Aug-2015

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

Re: **Scott 24B-25 Pipeline Release**

Work Order: **15081259**

Dear Rob,

ALS Environmental received 3 samples on 25-Aug-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 14.

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

Sincerely,

Chad Whelton

Electronically approved by: Les Arnold

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



28-Aug-2015

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

Re: **Pipeline Release SESW SEC 25 6S 92W-Scott**

Work Order: **15081352**

Dear Rob,

ALS Environmental received 4 samples on 26-Aug-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 30.

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: Les Arnold

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: Pipeline Release SESW SEC 25 6S 92W-Scott
Work Order: 15081352

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>
15081352-01	Seep 01	Soil		8/25/2015 10:18	8/26/2015 09:00	<input type="checkbox"/>
15081352-02	SS 01	Soil		8/25/2015 09:10	8/26/2015 09:00	<input type="checkbox"/>
15081352-03	SS 02	Soil		8/25/2015 09:58	8/26/2015 09:00	<input type="checkbox"/>
15081352-04	SS 03	Soil		8/25/2015 10:37	8/26/2015 09:00	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Pipeline Release SESW SEC 25 6S 92W-Scott
WorkOrder: 15081352

**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
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

Client: LT Environmental, Inc
Project: Pipeline Release SESW SEC 25 6S 92W-Scott
Work Order: 15081352

Case Narrative

Samples for the above noted Work Order were received on 08/26/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

No deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

Batch 75351, Method CR6_7196_S, Sample 15081352-02B: The MSD recovery was outside of the control limit for Hexavalent Chromium. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Batch 75351, Method CR6_7196_S, Sample 15081352-02B PDS: The PDS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte.

No other deviations or anomalies were noted.

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: Seep 01

Collection Date: 8/25/2015 10:18 AM

Work Order: 15081352

Lab ID: 15081352-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	52		SW8015M		Prep: SW3550 / 8/26/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	50.6		5.0	mg/Kg-dry	1	8/26/2015 04:16 PM
			39-133	%REC	1	8/26/2015 04:16 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	130		SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
<i>Surr: Toluene-d8</i>	95.5		3.0	mg/Kg-dry	1	8/26/2015 01:31 PM
			50-150	%REC	1	8/26/2015 01:31 PM
MERCURY BY CVAA						
Mercury	0.025		SW7471B		Prep: SW7471 / 8/26/15	Analyst: LR
			0.017	mg/Kg-dry	1	8/26/2015 03:14 PM
METALS ANALYSIS BY ICP						
Arsenic	14		SW846 6010C		Prep: SW3050B / 8/26/15	Analyst: JEC
Barium	140		0.43	mg/Kg-dry	1	8/26/2015 12:32 PM
Cadmium	ND		0.43	mg/Kg-dry	1	8/26/2015 12:32 PM
Chromium	7.2		0.85	mg/Kg-dry	1	8/26/2015 12:32 PM
Copper	11		0.43	mg/Kg-dry	1	8/26/2015 12:32 PM
Lead	8.4		0.85	mg/Kg-dry	1	8/26/2015 12:32 PM
Nickel	16		0.43	mg/Kg-dry	1	8/26/2015 12:32 PM
Selenium	2.2		0.43	mg/Kg-dry	1	8/26/2015 12:32 PM
Silver	ND		0.85	mg/Kg-dry	1	8/26/2015 12:32 PM
Zinc	31					
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	26		5.0	mg/L	10	8/28/2015 03:08 PM
Magnesium	5.5		2.0	mg/L	10	8/28/2015 03:08 PM
Sodium	1,700		2.0	mg/L	10	8/28/2015 03:08 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	81		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3550 / 8/26/15	Analyst: RS
Acenaphthene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Anthracene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Benzo(a)anthracene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Benzo(a)pyrene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Benzo(b)fluoranthene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Benzo(k)fluoranthene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Chrysene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Dibenzo(a,h)anthracene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Fluoranthene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: Seep 01

Collection Date: 8/25/2015 10:18 AM

Work Order: 15081352

Lab ID: 15081352-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Indeno(1,2,3-cd)pyrene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Naphthalene	0.034		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Pyrene	ND		0.0080	mg/Kg-dry	1	8/27/2015 01:57 AM
Surr: 2-Fluorobiphenyl	64.7		12-100	%REC	1	8/27/2015 01:57 AM
Surr: 4-Terphenyl-d14	74.4		25-137	%REC	1	8/27/2015 01:57 AM
Surr: Nitrobenzene-d5	62.9		37-107	%REC	1	8/27/2015 01:57 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/26/15		Analyst: BG
Benzene	0.55		0.036	mg/Kg-dry	1	8/26/2015 02:16 PM
Ethylbenzene	0.43		0.036	mg/Kg-dry	1	8/26/2015 02:16 PM
m,p-Xylene	5.9		0.072	mg/Kg-dry	1	8/26/2015 02:16 PM
o-Xylene	1.2		0.036	mg/Kg-dry	1	8/26/2015 02:16 PM
Toluene	4.0		0.036	mg/Kg-dry	1	8/26/2015 02:16 PM
Xylenes, Total	7.0		0.11	mg/Kg-dry	1	8/26/2015 02:16 PM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	8/26/2015 02:16 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	8/26/2015 02:16 PM
Surr: Dibromofluoromethane	97.3		70-130	%REC	1	8/26/2015 02:16 PM
Surr: Toluene-d8	97.4		70-130	%REC	1	8/26/2015 02:16 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 8/28/15		Analyst: JB
Electrical Conductivity @ Saturation	7.8		0.12	mmhos/cm @2	25	8/28/2015 04:50 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	6.7		0.60	mg/Kg-dry	1	8/27/2015 07:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 8/26/15		Analyst: MB
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	8/27/2015 03:00 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	17		0.050	% of sample	1	8/26/2015 11:30 AM
PH			SW9045D	Prep: EXTRACT / 8/26/15		Analyst: JB
pH	8.5			s.u.	1	8/26/2015 03:00 PM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: SS 01

Collection Date: 8/25/2015 09:10 AM

Work Order: 15081352

Lab ID: 15081352-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	21		SW8015M		Prep: SW3550 / 8/26/15	Analyst: IT
			4.8	mg/Kg-dry	1	8/26/2015 04:46 PM
Surr: 4-Terphenyl-d14	54.1		39-133	%REC	1	8/26/2015 04:46 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
			2.9	mg/Kg-dry	1	8/26/2015 01:55 PM
Surr: Toluene-d8	98.7		50-150	%REC	1	8/26/2015 01:55 PM
MERCURY BY CVAA						
Mercury	ND		SW7471B		Prep: SW7471 / 8/26/15	Analyst: LR
			0.016	mg/Kg-dry	1	8/26/2015 03:16 PM
METALS ANALYSIS BY ICP						
Arsenic	4.3		SW846 6010C		Prep: SW3050B / 8/26/15	Analyst: JEC
			0.44	mg/Kg-dry	1	8/26/2015 12:37 PM
Barium	190		0.44	mg/Kg-dry	1	8/26/2015 12:37 PM
Cadmium	ND		0.87	mg/Kg-dry	1	8/26/2015 12:37 PM
Chromium	8.8		0.44	mg/Kg-dry	1	8/26/2015 12:37 PM
Copper	9.2		0.87	mg/Kg-dry	1	8/26/2015 12:37 PM
Lead	7.0		0.44	mg/Kg-dry	1	8/26/2015 12:37 PM
Nickel	18		0.44	mg/Kg-dry	1	8/26/2015 12:37 PM
Selenium	ND		0.87	mg/Kg-dry	1	8/26/2015 12:37 PM
Silver	ND		0.44	mg/Kg-dry	1	8/26/2015 12:37 PM
Zinc	33		0.87	mg/Kg-dry	1	8/26/2015 12:37 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	63		5.0	mg/L	10	8/28/2015 03:14 PM
Magnesium	10		2.0	mg/L	10	8/28/2015 03:14 PM
Sodium	1,700		2.0	mg/L	10	8/28/2015 03:14 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	53		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3550 / 8/26/15	Analyst: RS
Acenaphthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Anthracene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Benzo(a)anthracene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Benzo(a)pyrene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Benzo(b)fluoranthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Benzo(k)fluoranthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Chrysene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Dibenzo(a,h)anthracene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Fluoranthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: SS 01

Collection Date: 8/25/2015 09:10 AM

Work Order: 15081352

Lab ID: 15081352-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Indeno(1,2,3-cd)pyrene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Naphthalene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Pyrene	ND		0.0077	mg/Kg-dry	1	8/27/2015 02:19 AM
Surr: 2-Fluorobiphenyl	67.6		12-100	%REC	1	8/27/2015 02:19 AM
Surr: 4-Terphenyl-d14	77.9		25-137	%REC	1	8/27/2015 02:19 AM
Surr: Nitrobenzene-d5	66.0		37-107	%REC	1	8/27/2015 02:19 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/26/15		Analyst: BG
Benzene	ND		0.035	mg/Kg-dry	1	8/26/2015 02:41 PM
Ethylbenzene	ND		0.035	mg/Kg-dry	1	8/26/2015 02:41 PM
m,p-Xylene	ND		0.070	mg/Kg-dry	1	8/26/2015 02:41 PM
o-Xylene	ND		0.035	mg/Kg-dry	1	8/26/2015 02:41 PM
Toluene	ND		0.035	mg/Kg-dry	1	8/26/2015 02:41 PM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	8/26/2015 02:41 PM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	1	8/26/2015 02:41 PM
Surr: 4-Bromofluorobenzene	99.0		70-130	%REC	1	8/26/2015 02:41 PM
Surr: Dibromofluoromethane	92.8		70-130	%REC	1	8/26/2015 02:41 PM
Surr: Toluene-d8	99.1		70-130	%REC	1	8/26/2015 02:41 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 8/28/15		Analyst: JB
Electrical Conductivity @ Saturation	7.6		0.12	mmhos/cm @2	25	8/28/2015 04:50 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	8.2		0.59	mg/Kg-dry	1	8/27/2015 07:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 8/26/15		Analyst: MB
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	8/27/2015 03:00 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	15		0.050	% of sample	1	8/26/2015 11:30 AM
PH			SW9045D	Prep: EXTRACT / 8/26/15		Analyst: JB
pH	8.7			s.u.	1	8/26/2015 03:00 PM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: SS 02

Collection Date: 8/25/2015 09:58 AM

Work Order: 15081352

Lab ID: 15081352-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3550 / 8/26/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	8/26/2015 03:46 PM
Surr: 4-Terphenyl-d14	54.2		39-133	%REC	1	8/26/2015 03:46 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	8/26/2015 02:19 PM
Surr: Toluene-d8	98.3		50-150	%REC	1	8/26/2015 02:19 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 8/26/15	Analyst: LR
Mercury	0.020		0.015	mg/Kg-dry	1	8/26/2015 03:19 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 8/26/15	Analyst: JEC
Arsenic	3.2		0.43	mg/Kg-dry	1	8/26/2015 12:43 PM
Barium	130		0.43	mg/Kg-dry	1	8/26/2015 12:43 PM
Cadmium	ND		0.86	mg/Kg-dry	1	8/26/2015 12:43 PM
Chromium	7.0		0.43	mg/Kg-dry	1	8/26/2015 12:43 PM
Copper	8.3		0.86	mg/Kg-dry	1	8/26/2015 12:43 PM
Lead	7.0		0.43	mg/Kg-dry	1	8/26/2015 12:43 PM
Nickel	15		0.43	mg/Kg-dry	1	8/26/2015 12:43 PM
Selenium	ND		0.86	mg/Kg-dry	1	8/26/2015 12:43 PM
Silver	ND		0.43	mg/Kg-dry	1	8/26/2015 12:43 PM
Zinc	25		0.86	mg/Kg-dry	1	8/26/2015 12:43 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	8.4		5.0	mg/L	10	8/28/2015 03:20 PM
Magnesium	2.3		2.0	mg/L	10	8/28/2015 03:20 PM
Sodium	1,800		2.0	mg/L	10	8/28/2015 03:20 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	140		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3550 / 8/26/15	Analyst: RS
Acenaphthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Anthracene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Benzo(a)anthracene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Benzo(a)pyrene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Benzo(b)fluoranthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Benzo(k)fluoranthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Chrysene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Dibenzo(a,h)anthracene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Fluoranthene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: SS 02

Collection Date: 8/25/2015 09:58 AM

Work Order: 15081352

Lab ID: 15081352-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Indeno(1,2,3-cd)pyrene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Naphthalene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Pyrene	ND		0.0077	mg/Kg-dry	1	8/27/2015 01:34 AM
Surr: 2-Fluorobiphenyl	68.3		12-100	%REC	1	8/27/2015 01:34 AM
Surr: 4-Terphenyl-d14	78.0		25-137	%REC	1	8/27/2015 01:34 AM
Surr: Nitrobenzene-d5	65.7		37-107	%REC	1	8/27/2015 01:34 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/26/15	Analyst: BG	
Benzene	ND		0.035	mg/Kg-dry	1	8/26/2015 03:05 PM
Ethylbenzene	ND		0.035	mg/Kg-dry	1	8/26/2015 03:05 PM
m,p-Xylene	ND		0.069	mg/Kg-dry	1	8/26/2015 03:05 PM
o-Xylene	ND		0.035	mg/Kg-dry	1	8/26/2015 03:05 PM
Toluene	ND		0.035	mg/Kg-dry	1	8/26/2015 03:05 PM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	8/26/2015 03:05 PM
Surr: 1,2-Dichloroethane-d4	98.2		70-130	%REC	1	8/26/2015 03:05 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	8/26/2015 03:05 PM
Surr: Dibromofluoromethane	93.6		70-130	%REC	1	8/26/2015 03:05 PM
Surr: Toluene-d8	100		70-130	%REC	1	8/26/2015 03:05 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 8/28/15	Analyst: JB	
Electrical Conductivity @ Saturation	8.6		0.12	mmhos/cm @2	25	8/28/2015 04:50 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	6.2		0.58	mg/Kg-dry	1	8/27/2015 07:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 8/26/15	Analyst: MB	
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	8/27/2015 03:00 PM
MOISTURE			E160.3M	Analyst: EVB		
Moisture	14		0.050	% of sample	1	8/26/2015 11:30 AM
PH			SW9045D	Prep: EXTRACT / 8/26/15	Analyst: JB	
pH	9.2		s.u.		1	8/26/2015 03:00 PM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: SS 03

Collection Date: 8/25/2015 10:37 AM

Work Order: 15081352

Lab ID: 15081352-04

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3550 / 8/26/15	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	8/26/2015 05:15 PM
Surr: 4-Terphenyl-d14	56.2		39-133	%REC	1	8/26/2015 05:15 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	8/26/2015 02:43 PM
Surr: Toluene-d8	98.4		50-150	%REC	1	8/26/2015 02:43 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 8/26/15	Analyst: LR
Mercury	ND		0.014	mg/Kg-dry	1	8/26/2015 03:21 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 8/26/15	Analyst: JEC
Arsenic	4.3		0.39	mg/Kg-dry	1	8/26/2015 12:48 PM
Barium	120		0.39	mg/Kg-dry	1	8/26/2015 12:48 PM
Cadmium	ND		0.78	mg/Kg-dry	1	8/26/2015 12:48 PM
Chromium	6.7		0.39	mg/Kg-dry	1	8/26/2015 12:48 PM
Copper	7.7		0.78	mg/Kg-dry	1	8/26/2015 12:48 PM
Lead	6.0		0.39	mg/Kg-dry	1	8/26/2015 12:48 PM
Nickel	15		0.39	mg/Kg-dry	1	8/26/2015 12:48 PM
Selenium	1.3		0.78	mg/Kg-dry	1	8/26/2015 12:48 PM
Silver	ND		0.39	mg/Kg-dry	1	8/26/2015 12:48 PM
Zinc	25		0.78	mg/Kg-dry	1	8/26/2015 12:48 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	9.3		5.0	mg/L	10	8/28/2015 03:26 PM
Magnesium	2.9		2.0	mg/L	10	8/28/2015 03:26 PM
Sodium	2,900		2.0	mg/L	10	8/28/2015 03:26 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	210		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3550 / 8/26/15	Analyst: RS
Acenaphthene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Anthracene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Benzo(a)anthracene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Benzo(a)pyrene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Benzo(b)fluoranthene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Benzo(k)fluoranthene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Chrysene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Dibenzo(a,h)anthracene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Fluoranthene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

Sample ID: SS 03

Collection Date: 8/25/2015 10:37 AM

Work Order: 15081352

Lab ID: 15081352-04

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Indeno(1,2,3-cd)pyrene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Naphthalene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Pyrene	ND		0.0076	mg/Kg-dry	1	8/27/2015 02:41 AM
Surr: 2-Fluorobiphenyl	67.7		12-100	%REC	1	8/27/2015 02:41 AM
Surr: 4-Terphenyl-d14	82.1		25-137	%REC	1	8/27/2015 02:41 AM
Surr: Nitrobenzene-d5	66.2		37-107	%REC	1	8/27/2015 02:41 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/26/15		Analyst: BG
Benzene	ND		0.034	mg/Kg-dry	1	8/26/2015 03:29 PM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	8/26/2015 03:29 PM
m,p-Xylene	ND		0.069	mg/Kg-dry	1	8/26/2015 03:29 PM
o-Xylene	ND		0.034	mg/Kg-dry	1	8/26/2015 03:29 PM
Toluene	ND		0.034	mg/Kg-dry	1	8/26/2015 03:29 PM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	8/26/2015 03:29 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	8/26/2015 03:29 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	8/26/2015 03:29 PM
Surr: Dibromofluoromethane	92.8		70-130	%REC	1	8/26/2015 03:29 PM
Surr: Toluene-d8	97.0		70-130	%REC	1	8/26/2015 03:29 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 8/28/15		Analyst: JB
Electrical Conductivity @ Saturation	14		0.12	mmhos/cm @2	25	8/28/2015 04:50 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	5.4		0.57	mg/Kg-dry	1	8/27/2015 07:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 8/26/15		Analyst: MB
Chromium, Hexavalent	1.2		1.1	mg/Kg-dry	1	8/27/2015 03:00 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	13		0.050	% of sample	1	8/26/2015 11:30 AM
PH			SW9045D	Prep: EXTRACT / 8/26/15		Analyst: JB
pH	9.2			s.u.	1	8/26/2015 03:00 PM

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

ALS Group USA, Corp

Date: 28-Aug-15

Client: LT Environmental, Inc

Work Order: 15081352

Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75268**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-75268-75268				Units: mg/Kg		Analysis Date: 8/26/2015 01:47 PM		
Client ID:		Run ID: GC8_150826A				SeqNo: 3432997		Prep Date: 8/26/2015		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	1.189	0	2	0	59.5	39-133		0		

LCS		Sample ID: DLCSS1-75268-75268				Units: mg/Kg		Analysis Date: 8/26/2015 02:16 PM		
Client ID:		Run ID: GC8_150826A				SeqNo: 3432998		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	161.1	5.0	200	0	80.6	61-109		0		
Surr: 4-Terphenyl-d14	1.122	0	2	0	56.1	39-133		0		

MS		Sample ID: 15081352-03B MS				Units: mg/Kg		Analysis Date: 8/26/2015 02:46 PM		
Client ID: SS 02		Run ID: GC8_150826A				SeqNo: 3432999		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	129.6	4.1	162.6	0	79.7	48-110		0		
Surr: 4-Terphenyl-d14	0.9006	0	1.626	0	55.4	39-133		0		

MSD		Sample ID: 15081352-03B MSD				Units: mg/Kg		Analysis Date: 8/26/2015 03:16 PM		
Client ID: SS 02		Run ID: GC8_150826A				SeqNo: 3433000		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	134.5	4.1	165.1	0	81.4	48-110	129.6	3.66	30	
Surr: 4-Terphenyl-d14	1.015	0	1.651	0	61.5	39-133	0.9006	12	30	

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75269** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: MBLK-75269-75269				Units: µg/Kg		Analysis Date: 8/26/2015 01:07 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3432801		Prep Date: 8/26/2015		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	4970	0	5000	0	99.4	50-150	0			

LCS		Sample ID: LCS-75269-75269				Units: µg/Kg		Analysis Date: 8/26/2015 12:43 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3432799		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	627500	2,500	500000	0	126	70-130	0			
Surr: Toluene-d8	5346	0	5000	0	107	50-150	0			

MS		Sample ID: 15081353-03A MS				Units: µg/Kg		Analysis Date: 8/26/2015 05:57 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3434439		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	537900	2,500	500000	0	108	70-130	0			
Surr: Toluene-d8	4772	0	5000	0	95.4	50-150	0			

MSD		Sample ID: 15081353-03A MSD				Units: µg/Kg		Analysis Date: 8/26/2015 06:22 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3434441		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	528000	2,500	500000	0	106	70-130	537900	1.87	30	
Surr: Toluene-d8	4706	0	5000	0	94.1	50-150	4772	1.39	30	

The following samples were analyzed in this batch:

15081352-01A	15081352-02A	15081352-03A
15081352-04A		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75275** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-75275-75275				Units: mg/Kg		Analysis Date: 8/26/2015 03:10 PM		
Client ID:		Run ID: HG1_150826A				SeqNo: 3432862		Prep Date: 8/26/2015		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-75275-75275				Units: mg/Kg		Analysis Date: 8/26/2015 03:12 PM		
Client ID:		Run ID: HG1_150826A				SeqNo: 3432863		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1762 0.020 0.1665 0 106 80-120 0

MS		Sample ID: 15081352-04BMS				Units: mg/Kg		Analysis Date: 8/26/2015 03:23 PM		
Client ID: SS 03		Run ID: HG1_150826A				SeqNo: 3432870		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1209 0.012 0.1035 0.01146 106 75-125 0

MSD		Sample ID: 15081352-04BMSD				Units: mg/Kg		Analysis Date: 8/26/2015 03:25 PM		
Client ID: SS 03		Run ID: HG1_150826A			SeqNo: 3432871		Prep Date: 8/26/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1222 0.012 0.1033 0.01146 107 75-125 0.1209 1.03 35

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75267** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-75267-75267				Units: mg/Kg		Analysis Date: 8/26/2015 11:59 AM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432407		Prep Date: 8/26/2015		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	0.01718	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-75267-75267				Units: mg/Kg		Analysis Date: 8/26/2015 12:04 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432408		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.284	0.25	5	0	106	80-120	0			
Barium	5.377	0.25	5	0	108	80-120	0			
Cadmium	4.82	0.50	5	0	96.4	80-120	0			
Chromium	5.518	0.25	5	0	110	80-120	0			
Copper	5.424	0.50	5	0	108	80-120	0			
Lead	5.281	0.25	5	0	106	80-120	0			
Nickel	5.293	0.25	5	0	106	80-120	0			
Selenium	5.225	0.50	5	0	105	80-120	0			
Silver	5.008	0.25	5	0	100	80-120	0			
Zinc	4.962	0.50	5	0	99.2	80-120	0			

MS		Sample ID: 15081346-03AMS				Units: mg/Kg		Analysis Date: 8/26/2015 12:15 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432410		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.72	0.40	7.911	7.574	103	75-125	0			
Barium	431.3	0.40	7.911	444.4	-166	75-125	0			SO
Cadmium	7.228	0.79	7.911	-0.153	93.3	75-125	0			
Chromium	50.31	0.40	7.911	44.64	71.7	75-125	0			SO
Copper	22.22	0.79	7.911	14.46	98.1	75-125	0			
Lead	18.4	0.40	7.911	14.04	55.1	75-125	0			S
Nickel	41.27	0.40	7.911	33.32	101	75-125	0			O
Selenium	8.376	0.79	7.911	0.2382	103	75-125	0			
Silver	7.64	0.40	7.911	-0.0886	97.7	75-125	0			
Zinc	37.14	0.79	7.911	30	90.3	75-125	0			

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75267** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 15081346-03AMSD				Units: mg/Kg		Analysis Date: 8/26/2015 12:21 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432411		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.02	0.39	7.899	7.574	120	75-125	15.72	7.92	20	
Barium	458.1	0.39	7.899	444.4	173	75-125	431.3	6.02	20	SO
Cadmium	7.561	0.79	7.899	-0.153	97.7	75-125	7.228	4.5	20	
Chromium	52.23	0.39	7.899	44.64	96.2	75-125	50.31	3.76	20	O
Copper	23.69	0.79	7.899	14.46	117	75-125	22.22	6.39	20	
Lead	20.11	0.39	7.899	14.04	76.8	75-125	18.4	8.89	20	
Nickel	44.12	0.39	7.899	33.32	137	75-125	41.27	6.67	20	SO
Selenium	8.43	0.79	7.899	0.2382	104	75-125	8.376	0.648	20	
Silver	7.951	0.39	7.899	-0.0886	102	75-125	7.64	3.99	20	
Zinc	38.25	0.79	7.899	30	105	75-125	37.14	2.95	20	

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75316** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 15081355-01ADUP				Units: mg/L		Analysis Date: 8/28/2015 03:37 PM		
Client ID:		Run ID: ICP2_150828A				SeqNo: 3436527		Prep Date: 8/28/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	669.4	5.0	0	0	0	0-0	693.7	3.57		
Magnesium	380.4	2.0	0	0	0	0-0	395.9	4		
Sodium	719.6	2.0	0	0	0	0-0	747.5	3.81		

DUP		Sample ID: 15081355-01ADUP				Units: none		Analysis Date: 8/28/2015		
Client ID:		Run ID: SAR_150828A				SeqNo: 3436706		Prep Date: 8/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.503	0.010	0	0	0		5.61	1.92	50	

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75272** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-75272-75272				Units: µg/Kg		Analysis Date: 8/26/2015 08:03 PM		
Client ID:		Run ID: SVMS5_150826A				SeqNo: 3433103		Prep Date: 8/26/2015		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								
<i>Surr: 2-Fluorobiphenyl</i>	999.3	0	1667	0	60	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1403	0	1667	0	84.2	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	944.3	0	1667	0	56.7	37-107	0			

LCS		Sample ID: SLCSS1-75272-75272				Units: µg/Kg		Analysis Date: 8/26/2015 08:25 PM		
Client ID:		Run ID: SVMS5_150826A				SeqNo: 3433104		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	483.3	6.7	666.7	0	72.5	45-110	0			
Anthracene	607	6.7	666.7	0	91	55-105	0			
Benzo(a)anthracene	616	6.7	666.7	0	92.4	50-110	0			
Benzo(a)pyrene	608.7	6.7	666.7	0	91.3	50-110	0			
Benzo(b)fluoranthene	630.7	6.7	666.7	0	94.6	45-115	0			
Benzo(k)fluoranthene	621.3	6.7	666.7	0	93.2	45-115	0			
Chrysene	603.3	6.7	666.7	0	90.5	55-110	0			
Dibenzo(a,h)anthracene	564.3	6.7	666.7	0	84.6	40-125	0			
Fluoranthene	599.7	6.7	666.7	0	89.9	55-115	0			
Fluorene	525	6.7	666.7	0	78.7	50-110	0			
Indeno(1,2,3-cd)pyrene	544	6.7	666.7	0	81.6	40-120	0			
Naphthalene	422.3	6.7	666.7	0	63.3	40-105	0			
Pyrene	618	6.7	666.7	0	92.7	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1033	0	1667	0	62	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1415	0	1667	0	84.9	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	945.7	0	1667	0	56.7	37-107	0			

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

Client: LT Environmental, Inc
 Work Order: 15081352
 Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75272** Instrument ID **SVMS5** Method: **SW846 8270D**

MS				Sample ID: 15081352-03B MS			Units: µg/Kg		Analysis Date: 8/27/2015 12:50 PM	
Client ID: SS 02				Run ID: SVMS5_150826A			SeqNo: 3433110		Prep Date: 8/26/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	497.1	6.6	658.5	0	75.5	45-110	0			
Anthracene	554.4	6.6	658.5	0	84.2	55-105	0			
Benzo(a)anthracene	563.6	6.6	658.5	0	85.6	50-110	0			
Benzo(a)pyrene	562.6	6.6	658.5	0	85.4	50-110	0			
Benzo(b)fluoranthene	584	6.6	658.5	0	88.7	45-115	0			
Benzo(k)fluoranthene	560.7	6.6	658.5	0	85.1	45-115	0			
Chrysene	549.1	6.6	658.5	0	83.4	55-110	0			
Dibenzo(a,h)anthracene	527.4	6.6	658.5	0	80.1	40-125	0			
Fluoranthene	556.4	6.6	658.5	0	84.5	55-115	0			
Fluorene	513.3	6.6	658.5	0	77.9	50-110	0			
Indeno(1,2,3-cd)pyrene	518.5	6.6	658.5	0	78.7	40-120	0			
Naphthalene	484	6.6	658.5	0	73.5	40-105	0			
Pyrene	561.3	6.6	658.5	0	85.2	45-125	0			
Surr: 2-Fluorobiphenyl	1148	0	1646	0	69.7	12-100	0			
Surr: 4-Terphenyl-d14	1280	0	1646	0	77.8	25-137	0			
Surr: Nitrobenzene-d5	1121	0	1646	0	68.1	37-107	0			

MSD				Sample ID: 15081352-03B MSD			Units: µg/Kg		Analysis Date: 8/27/2015 01:12 AM	
Client ID: SS 02				Run ID: SVMS5_150826A			SeqNo: 3433105		Prep Date: 8/26/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	443.1	6.5	647.8	0	68.4	45-110	497.1	11.5	30	
Anthracene	521.8	6.5	647.8	0	80.5	55-105	554.4	6.06	30	
Benzo(a)anthracene	518.9	6.5	647.8	0	80.1	50-110	563.6	8.26	30	
Benzo(a)pyrene	525.4	6.5	647.8	0	81.1	50-110	562.6	6.85	30	
Benzo(b)fluoranthene	536.4	6.5	647.8	0	82.8	45-115	584	8.5	30	
Benzo(k)fluoranthene	513.7	6.5	647.8	0	79.3	45-115	560.7	8.74	30	
Chrysene	509.8	6.5	647.8	0	78.7	55-110	549.1	7.42	30	
Dibenzo(a,h)anthracene	512.1	6.5	647.8	0	79	40-125	527.4	2.95	30	
Fluoranthene	510.8	6.5	647.8	0	78.8	55-115	556.4	8.54	30	
Fluorene	471.6	6.5	647.8	0	72.8	50-110	513.3	8.46	30	
Indeno(1,2,3-cd)pyrene	516.3	6.5	647.8	0	79.7	40-120	518.5	0.427	30	
Naphthalene	425.3	6.5	647.8	0	65.6	40-105	484	12.9	30	
Pyrene	498.5	6.5	647.8	0	76.9	45-125	561.3	11.9	30	
Surr: 2-Fluorobiphenyl	1031	0	1620	0	63.7	12-100	1148	10.7	40	
Surr: 4-Terphenyl-d14	1150	0	1620	0	71	25-137	1280	10.7	40	
Surr: Nitrobenzene-d5	964.3	0	1620	0	59.5	37-107	1121	15	40	

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75263** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-75263-75263				Units: µg/Kg			Analysis Date: 8/26/2015 01:52 PM		
Client ID:			Run ID: VMS8_150826A				SeqNo: 3432892		Prep Date: 8/26/2015		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	950	0	1000	0	95	70-130		0					
Surr: 4-Bromofluorobenzene	997.5	0	1000	0	99.8	70-130		0					
Surr: Dibromofluoromethane	959.5	0	1000	0	96	70-130		0					
Surr: Toluene-d8	981	0	1000	0	98.1	70-130		0					

LCS				Sample ID: LCS-75263-75263		Units: µg/Kg		Analysis Date: 8/26/2015 12:15 PM		
Client ID:			Run ID: VMS8_150826A			SeqNo: 3432891		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	974	30	1000	0	97.4	75-125	0			
Ethylbenzene	991.5	30	1000	0	99.2	75-125	0			
m,p-Xylene	1999	60	2000	0	100	80-125	0			
o-Xylene	950	30	1000	0	95	75-125	0			
Toluene	991	30	1000	0	99.1	70-125	0			
Xylenes, Total	2949	90	3000	0	98.3	75-125	0			
Surr: 1,2-Dichloroethane-d4	968	0	1000	0	96.8	70-130	0			
Surr: 4-Bromofluorobenzene	1003	0	1000	0	100	70-130	0			
Surr: Dibromofluoromethane	967.5	0	1000	0	96.8	70-130	0			
Surr: Toluene-d8	976	0	1000	0	97.6	70-130	0			

MS				Sample ID: 15081353-03A MS				Units: µg/Kg			Analysis Date: 8/26/2015 09:34 PM		
Client ID:			Run ID: VMS8_150826A			SeqNo: 3433503		Prep Date: 8/26/2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	910	30	1000	0	91	75-125	0						
Ethylbenzene	923	30	1000	0	92.3	75-125	0						
m,p-Xylene	1862	60	2000	0	93.1	80-125	0						
o-Xylene	884.5	30	1000	0	88.4	75-125	0						
Toluene	947	30	1000	0	94.7	70-125	0						
Xylenes, Total	2747	90	3000	0	91.6	75-125	0						
Surr: 1,2-Dichloroethane-d4	954	0	1000	0	95.4	70-130	0						
Surr: 4-Bromofluorobenzene	980	0	1000	0	98	70-130	0						
Surr: Dibromofluoromethane	954.5	0	1000	0	95.4	70-130	0						
Surr: Toluene-d8	946.5	0	1000	0	94.6	70-130	0						

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75263** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 15081353-03A MSD			Units: µg/Kg		Analysis Date: 8/26/2015 09:58 PM	
Client ID:				Run ID: VMS8_150826A			SeqNo: 3433504		Prep Date: 8/26/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	995	30	1000	0	99.5	75-125	910	8.92	30	
Ethylbenzene	1032	30	1000	0	103	75-125	923	11.1	30	
m,p-Xylene	2069	60	2000	0	103	80-125	1862	10.5	30	
o-Xylene	1020	30	1000	0	102	75-125	884.5	14.3	30	
Toluene	1031	30	1000	0	103	70-125	947	8.49	30	
Xylenes, Total	3090	90	3000	0	103	75-125	2747	11.7	30	
Surr: 1,2-Dichloroethane-d4	945	0	1000	0	94.5	70-130	954	0.948	30	
Surr: 4-Bromofluorobenzene	987.5	0	1000	0	98.8	70-130	980	0.762	30	
Surr: Dibromofluoromethane	942.5	0	1000	0	94.2	70-130	954.5	1.27	30	
Surr: Toluene-d8	965.5	0	1000	0	96.6	70-130	946.5	1.99	30	

The following samples were analyzed in this batch:

15081352-01A	15081352-02A	15081352-03A
15081352-04A		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75286** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-75286-75286				Units: s.u.		Analysis Date: 8/26/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150826J			SeqNo: 3432966		Prep Date: 8/26/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.98	0	4	0	99.5	90-110	0			

DUP		Sample ID: 15081216-01B DUP				Units: s.u.		Analysis Date: 8/26/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150826J				SeqNo: 3432968		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.42	0	0	0	0	0-0	7.41	0.135	20	

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75316** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 15081355-01A DUP				Units: mmhos/cm @25°		Analysis Date: 8/28/2015 04:50 PM		
Client ID:		Run ID: WETCHEM_150828M				SeqNo: 3436754		Prep Date: 8/28/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	8.88	0.050	0	0	0		9.26	4.19	50	

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75351** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-75351-75351				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L				SeqNo: 3434512		Prep Date: 8/26/2015		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-75351-75351				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L				SeqNo: 3434511		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	5.33	1.0	5	0	107	80-120	0			

MS		Sample ID: 15081352-02B MS				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID: SS 01		Run ID: WETCHEM_150827L				SeqNo: 3434504		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.5	0.96	4.808	0.5421	82.3	75-125	0			

MS		Sample ID: 15081352-02B MSI				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID: SS 01		Run ID: WETCHEM_150827L				SeqNo: 3434506		Prep Date: 8/26/2015		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2632	93	2752	0.5421	95.6	75-125	0			

MSD		Sample ID: 15081352-02B MSD				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID: SS 01		Run ID: WETCHEM_150827L				SeqNo: 3434505		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.019	0.93	4.673	0.5421	74.4	75-125	4.5	11.3	20	S

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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

Client: LT Environmental, Inc
Work Order: 15081352
Project: Pipeline Release SESW SEC 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **R170415** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R170415				Units: % of sample		Analysis Date: 8/26/2015 11:30 AM		
Client ID:		Run ID: MOIST_150826A				SeqNo: 3433365		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-R170415				Units: % of sample		Analysis Date: 8/26/2015 11:30 AM		
Client ID:		Run ID: MOIST_150826A				SeqNo: 3433364		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: 15081352-01B DUP				Units: % of sample		Analysis Date: 8/26/2015 11:30 AM		
Client ID: Seep 01		Run ID: MOIST_150826A				SeqNo: 3433360		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.49	0.050	0		0	0		17.19	1.73	20

The following samples were analyzed in this batch:

15081352-01B	15081352-02B	15081352-03B
15081352-04B		

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.

COC number (for client tracking)

15081352

Page 1 of 1

7.8⁰

ORIGIN ID: RILA (016) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 25AUG15
 ACTWGHT: 70.00 LB
 CAD: 2264840/NET3670
 DIMS: 26x16x16 IN

BILL SENDER

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

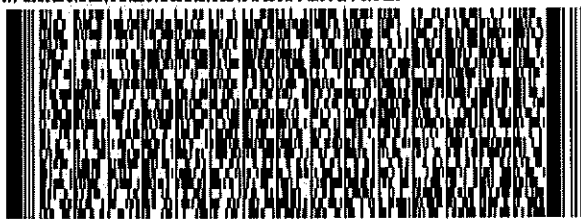
HOLLAND MI 49424

(616) 399-6070

REF: 082515-1

INV
 PO PARACHUTE

DEPT:



FedEx
 Express



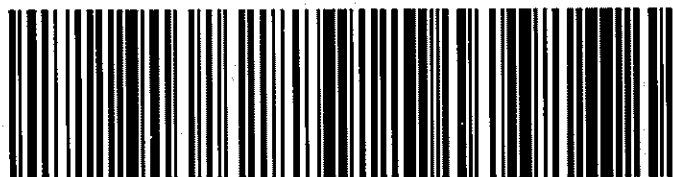
REL#
 3785346

TRK#
 0201 **7743 6499 0389**

WED - 26 AUG 10:30A
PRIORITY OVERNIGHT

XX HLMA

49424
MI-US GRR



539J1FECA31D0

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
Work Order: 15081352

Date/Time Received: 26-Aug-15 09:00
Received by: KRW

Checklist completed by Keith Wurenga 26-Aug-15 Reviewed by: Lee Drndol 26-Aug-15
eSignature Date 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>2.8/2.8 C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>8/26/2015 9:34:34 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:

Client: LT Environmental, Inc
Project: Scott 24B-25 Pipeline Release
Work Order: 15081259

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>
15081259-01	Oxbow01	Water		8/24/2015 12:00	8/25/2015 10:00	<input type="checkbox"/>
15081259-02	Divide Creek 01	Water		8/24/2015 12:15	8/25/2015 10:00	<input type="checkbox"/>
15081259-03	Divide Creek 02	Water		8/24/2015 12:45	8/25/2015 10:00	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Scott 24B-25 Pipeline Release
WorkOrder: 15081259

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>
µg/L	Micrograms per Liter

Client: LT Environmental, Inc
Project: Scott 24B-25 Pipeline Release
Work Order: 15081259

Case Narrative

Samples for the above noted Work Order were received on 08/25/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

No deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

ALS Group USA, Corp

Date: 26-Aug-15

Client: LT Environmental, Inc
Project: Scott 24B-25 Pipeline Release
Sample ID: Oxbow01
Collection Date: 8/24/2015 12:00 PM

Work Order: 15081259
Lab ID: 15081259-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	ug/L	1	8/25/2015 12:52 PM
Ethylbenzene	ND		1.0	ug/L	1	8/25/2015 12:52 PM
m,p-Xylene	ND		2.0	ug/L	1	8/25/2015 12:52 PM
o-Xylene	ND		1.0	ug/L	1	8/25/2015 12:52 PM
Toluene	ND		1.0	ug/L	1	8/25/2015 12:52 PM
Xylenes, Total	ND		3.0	ug/L	1	8/25/2015 12:52 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	8/25/2015 12:52 PM
Surr: 4-Bromofluorobenzene	97.0		80-110	%REC	1	8/25/2015 12:52 PM
Surr: Dibromofluoromethane	98.3		85-115	%REC	1	8/25/2015 12:52 PM
Surr: Toluene-d8	100		85-110	%REC	1	8/25/2015 12:52 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	14,000		5,000	µg/L	5	8/25/2015 11:33 AM
Sulfate	55,000		5,000	µg/L	5	8/25/2015 11:33 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 8/25/15	Analyst: STP
Total Dissolved Solids	960,000		10,000	µg/L	1	8/26/2015 01:45 PM

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

ALS Group USA, Corp

Date: 26-Aug-15

Client: LT Environmental, Inc
Project: Scott 24B-25 Pipeline Release
Sample ID: Divide Creek 01
Collection Date: 8/24/2015 12:15 PM

Work Order: 15081259
Lab ID: 15081259-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	ug/L	1	8/25/2015 01:17 PM
Ethylbenzene	ND		1.0	ug/L	1	8/25/2015 01:17 PM
m,p-Xylene	ND		2.0	ug/L	1	8/25/2015 01:17 PM
o-Xylene	ND		1.0	ug/L	1	8/25/2015 01:17 PM
Toluene	ND		1.0	ug/L	1	8/25/2015 01:17 PM
Xylenes, Total	ND		3.0	ug/L	1	8/25/2015 01:17 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	8/25/2015 01:17 PM
Surr: 4-Bromofluorobenzene	98.4		80-110	%REC	1	8/25/2015 01:17 PM
Surr: Dibromofluoromethane	99.7		85-115	%REC	1	8/25/2015 01:17 PM
Surr: Toluene-d8	100		85-110	%REC	1	8/25/2015 01:17 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	72,000		10,000	µg/L	10	8/25/2015 11:53 AM
Sulfate	110,000		10,000	µg/L	10	8/25/2015 11:53 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 8/25/15	Analyst: STP
Total Dissolved Solids	470,000		10,000	µg/L	1	8/26/2015 01:45 PM

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

ALS Group USA, Corp

Date: 26-Aug-15

Client: LT Environmental, Inc
Project: Scott 24B-25 Pipeline Release
Sample ID: Divide Creek 02
Collection Date: 8/24/2015 12:45 PM

Work Order: 15081259
Lab ID: 15081259-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	ug/L	1	8/25/2015 01:42 PM
Ethylbenzene	ND		1.0	ug/L	1	8/25/2015 01:42 PM
m,p-Xylene	ND		2.0	ug/L	1	8/25/2015 01:42 PM
o-Xylene	ND		1.0	ug/L	1	8/25/2015 01:42 PM
Toluene	ND		1.0	ug/L	1	8/25/2015 01:42 PM
Xylenes, Total	ND		3.0	ug/L	1	8/25/2015 01:42 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	8/25/2015 01:42 PM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	1	8/25/2015 01:42 PM
Surr: Dibromofluoromethane	102		85-115	%REC	1	8/25/2015 01:42 PM
Surr: Toluene-d8	100		85-110	%REC	1	8/25/2015 01:42 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	14,000		5,000	µg/L	5	8/25/2015 12:13 PM
Sulfate	55,000		5,000	µg/L	5	8/25/2015 12:13 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 8/25/15	Analyst: STP
Total Dissolved Solids	450,000		10,000	µg/L	1	8/26/2015 01:45 PM

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

ALS Group USA, Corp

Date: 26-Aug-15

Client: LT Environmental, Inc

Work Order: 15081259

Project: Scott 24B-25 Pipeline Release

QC BATCH REPORT

Batch ID: **R170251**

Instrument ID **VMS5**

Method: **SW8260**

MBLK	Sample ID: VBKWK1-150825-R170251				Units: µg/L		Analysis Date: 8/25/2015 12:01 PM			
Client ID:	Run ID: VMS5_150825A				SeqNo: 3430751		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	20.06	0	20	0	100	75-120	0			
Surr: 4-Bromofluorobenzene	19.77	0	20	0	98.8	80-110	0			
Surr: Dibromofluoromethane	19.95	0	20	0	99.8	85-115	0			
Surr: Toluene-d8	20.01	0	20	0	100	85-110	0			

LCS	Sample ID: VLCSW1-150825-R170251				Units: µg/L		Analysis Date: 8/25/2015 10:45 AM			
Client ID:	Run ID: VMS5_150825A				SeqNo: 3430749		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	21.61	1.0	20	0	108	85-125	0			
Ethylbenzene	21.29	1.0	20	0	106	85-125	0			
m,p-Xylene	43.03	2.0	40	0	108	75-130	0			
o-Xylene	20.78	1.0	20	0	104	80-125	0			
Toluene	21.88	1.0	20	0	109	85-125	0			
Xylenes, Total	63.81	3.0	60	0	106	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.86	0	20	0	99.3	75-120	0			
Surr: 4-Bromofluorobenzene	20.3	0	20	0	102	80-110	0			
Surr: Dibromofluoromethane	19.74	0	20	0	98.7	85-115	0			
Surr: Toluene-d8	20.33	0	20	0	102	85-110	0			

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

Client: LT Environmental, Inc
 Work Order: 15081259
 Project: Scott 24B-25 Pipeline Release

QC BATCH REPORT

Batch ID: **R170251** Instrument ID **VMS5** Method: **SW8260**

MS				Sample ID: 15081177-29A MS			Units: µg/L		Analysis Date: 8/25/2015 08:53 PM		
Client ID:			Run ID: VMS5_150825A			SeqNo: 3431640		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	21.84	1.0	20	0	109	85-125	0				
Ethylbenzene	21.32	1.0	20	0	107	85-125	0				
m,p-Xylene	42.66	2.0	40	0	107	75-130	0				
o-Xylene	20.5	1.0	20	0	102	80-125	0				
Toluene	21.44	1.0	20	0	107	85-125	0				
Xylenes, Total	63.16	3.0	60	0	105	80-126	0				
Surr: 1,2-Dichloroethane-d4	20.4	0	20	0	102	75-120	0				
Surr: 4-Bromofluorobenzene	20.05	0	20	0	100	80-110	0				
Surr: Dibromofluoromethane	20.3	0	20	0	102	85-115	0				
Surr: Toluene-d8	20.03	0	20	0	100	85-110	0				

MSD				Sample ID: 15081177-29A MSD			Units: µg/L		Analysis Date: 8/25/2015 09:18 PM		
Client ID:			Run ID: VMS5_150825A			SeqNo: 3431641		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	18.12	1.0	20	0	90.6	85-125	21.84	18.6	30		
Ethylbenzene	17.66	1.0	20	0	88.3	85-125	21.32	18.8	30		
m,p-Xylene	35.26	2.0	40	0	88.2	75-130	42.66	19	30		
o-Xylene	16.81	1.0	20	0	84	80-125	20.5	19.8	30		
Toluene	17.62	1.0	20	0	88.1	85-125	21.44	19.6	30		
Xylenes, Total	52.07	3.0	60	0	86.8	80-126	63.16	19.2	30		
Surr: 1,2-Dichloroethane-d4	20.06	0	20	0	100	75-120	20.4	1.68	30		
Surr: 4-Bromofluorobenzene	20.23	0	20	0	101	80-110	20.05	0.894	30		
Surr: Dibromofluoromethane	19.89	0	20	0	99.4	85-115	20.3	2.04	30		
Surr: Toluene-d8	19.76	0	20	0	98.8	85-110	20.03	1.36	30		

The following samples were analyzed in this batch:

15081259-01A	15081259-02A	15081259-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 15081259
Project: Scott 24B-25 Pipeline Release

QC BATCH REPORT

Batch ID: **75234** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MBLK-75234-75234				Units: mg/L		Analysis Date: 8/26/2015 01:45 PM		
Client ID:		Run ID: TDS_150826A				SeqNo: 3432515		Prep Date: 8/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS		Sample ID: LCS-75234-75234				Units: mg/L		Analysis Date: 8/26/2015 01:45 PM		
Client ID:		Run ID: TDS_150826A				SeqNo: 3432514		Prep Date: 8/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 493 10 495 0 99.6 80-120 0

DUP		Sample ID: 15081259-01B DUP				Units: mg/L		Analysis Date: 8/26/2015 01:45 PM		
Client ID: Oxbow01		Run ID: TDS_150826A				SeqNo: 3432508		Prep Date: 8/25/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 956 10 0 0 0 0-0 959 0.313 10

The following samples were analyzed in this batch:

15081259-01B	15081259-02B	15081259-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LT Environmental, Inc
Work Order: 15081259
Project: Scott 24B-25 Pipeline Release

QC BATCH REPORT

Batch ID: **R170309** Instrument ID **IC4** Method: **SW9056A**

MBLK		Sample ID: CCB/MBLK-R170309				Units: mg/L		Analysis Date: 8/25/2015 07:45 AM		
Client ID:		Run ID: IC4_150825A				SeqNo: 3431302		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	1.0								
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R170309				Units: mg/L		Analysis Date: 8/25/2015 08:06 AM		
Client ID:		Run ID: IC4_150825A				SeqNo: 3431303		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.594	1.0	10	0	95.9	88-110	0			
Sulfate	9.977	1.0	10	0	99.8	85-110	0			

MS		Sample ID: 1508964-08C MS				Units: mg/L		Analysis Date: 8/25/2015 10:52 AM		
Client ID:		Run ID: IC4_150825A				SeqNo: 3431307		Prep Date:		DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	29.49	2.0	20	8.933	103	75-125	0			
Sulfate	23.96	2.0	20	3.54	102	75-125	0			

MSD		Sample ID: 1508964-08C MSD				Units: mg/L		Analysis Date: 8/25/2015 11:13 AM		
Client ID:		Run ID: IC4_150825A				SeqNo: 3431308		Prep Date:		DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	29.71	2.0	20	8.933	104	75-125	29.49	0.751	20	
Sulfate	24.24	2.0	20	3.54	103	75-125	23.96	1.16	20	

The following samples were analyzed in this batch:

15081259-01C	15081259-02C	15081259-03C
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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.

COC number (for client tracking)

15081239

Page 1 of 1

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

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

SHIP DATE: 24AUG15
 ACTWGT: 42.00 LB
 CAD: 2264840/NET3870
 DIMS: 18x18x14 IN
 BILL SENDER

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

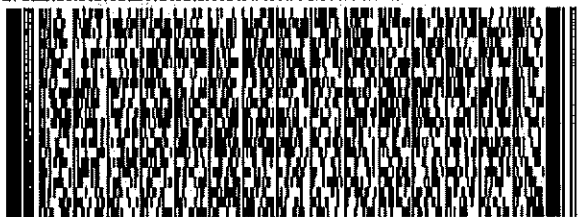
HOLLAND MI 49424

(816) 399-6070
 INV
 PO: PARACHUTE

REF 082415-1

DEPT:

536J1FECA31D0



FedEx
 Express



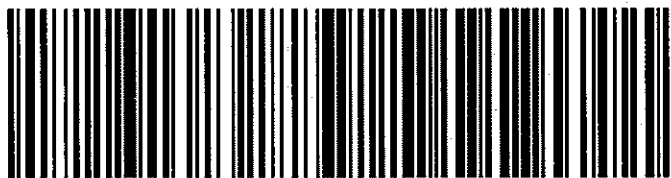
REL#
 3785346

1 of 2
 TRK#
 0201 **7743 5423 4974**
 ## MASTER ##

TUE - 25 AUG 10:30A
PRIORITY OVERNIGHT

XX HLMA

49424
GRR
 MI-US



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
Work Order: 15081259

Date/Time Received: 25-Aug-15 10:00
Received by: KRW

Checklist completed by Keith Wurenga 25-Aug-15
eSignature Date
Reviewed by: Lee Drndol 25-Aug-15
eSignature Date

Matrices: Water
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>3.4/3.4 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>8/25/2015 10:09:34 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:
Contacted By: Regarding:

Comments:

CorrectiveAction:

Client: LT Environmental, Inc
Project: Pipeline Release SESW SEC25 6S 92W-Scott
Work Order: 1509414

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>
1509414-01	Seep 01 Surface Water	Water		9/8/2015 13:00	9/9/2015 09:30	<input type="checkbox"/>
1509414-02	Trip Blank	Water		9/8/2015	9/9/2015 09:30	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Pipeline Release SESW SEC25 6S 92W-Scott
Work Order: 1509414

Case Narrative

Samples for the above noted Work Order were received on 09/09/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

No deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

ALS Group USA, Corp

Date: 10-Sep-15

Client: LT Environmental, Inc
Project: Pipeline Release SESW SEC25 6S 92W-Scott
Sample ID: Seep 01 Surface Water
Collection Date: 9/8/2015 01:00 PM

Work Order: 1509414
Lab ID: 1509414-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: LSY
Benzene	ND		0.0010	mg/L	1	9/10/2015 09:47 AM
Ethylbenzene	ND		0.0010	mg/L	1	9/10/2015 09:47 AM
m,p-Xylene	ND		0.0020	mg/L	1	9/10/2015 09:47 AM
o-Xylene	ND		0.0010	mg/L	1	9/10/2015 09:47 AM
Toluene	ND		0.0010	mg/L	1	9/10/2015 09:47 AM
Xylenes, Total	ND		0.0030	mg/L	1	9/10/2015 09:47 AM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	9/10/2015 09:47 AM
Surr: 4-Bromofluorobenzene	85.8		80-110	%REC	1	9/10/2015 09:47 AM
Surr: Dibromofluoromethane	102		85-115	%REC	1	9/10/2015 09:47 AM
Surr: Toluene-d8	90.8		85-110	%REC	1	9/10/2015 09:47 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	38		20	mg/L	20	9/10/2015 09:32 AM
Sulfate	190		20	mg/L	20	9/10/2015 09:32 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 9/10/15	Analyst: YM
Total Dissolved Solids	1,400		20	mg/L	1	9/10/2015 04:00 PM

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

ALS Group USA, Corp**Date:** 10-Sep-15**Client:** LT Environmental, Inc**Project:** Pipeline Release SESW SEC25 6S 92W-Scott**Work Order:** 1509414**Sample ID:** Trip Blank**Lab ID:** 1509414-02**Collection Date:** 9/8/2015**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: LSY
Benzene	ND		0.0010	mg/L	1	9/9/2015 02:36 PM
Ethylbenzene	ND		0.0010	mg/L	1	9/9/2015 02:36 PM
m,p-Xylene	ND		0.0020	mg/L	1	9/9/2015 02:36 PM
o-Xylene	ND		0.0010	mg/L	1	9/9/2015 02:36 PM
Toluene	ND		0.0010	mg/L	1	9/9/2015 02:36 PM
Xylenes, Total	ND		0.0030	mg/L	1	9/9/2015 02:36 PM
Surr: 1,2-Dichloroethane-d4	95.1		75-120	%REC	1	9/9/2015 02:36 PM
Surr: 4-Bromofluorobenzene	92.0		80-110	%REC	1	9/9/2015 02:36 PM
Surr: Dibromofluoromethane	94.7		85-115	%REC	1	9/9/2015 02:36 PM
Surr: Toluene-d8	100		85-110	%REC	1	9/9/2015 02:36 PM

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

Client: LT Environmental, Inc
Project: Pipeline Release SESW SEC25 6S 92W-Scott
WorkOrder: 1509414

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>
mg/L	Milligrams per Liter

Client: LT Environmental, Inc

QC BATCH REPORT

Work Order: 1509414

Project: Pipeline Release SESW SEC25 6S 92W-Scott

Batch ID: R171255

Instrument ID VMS9

Method: SW8260

MBLK		Sample ID: VBLKW1-150909-R171255				Units: µg/L		Analysis Date: 9/9/2015 02:11 PM		
Client ID:		Run ID: VMS9_150909A				SeqNo: 3451420		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	19.18	0	20	0	95.9	75-120	0			
Surr: 4-Bromofluorobenzene	18.59	0	20	0	93	80-110	0			
Surr: Dibromofluoromethane	18.85	0	20	0	94.2	85-115	0			
Surr: Toluene-d8	20.27	0	20	0	101	85-110	0			

LCS		Sample ID: VLCSW1-150909-R171255				Units: µg/L		Analysis Date: 9/9/2015 12:54 PM		
Client ID:		Run ID: VMS9_150909A				SeqNo: 3451418		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.93	1.0	20	0	99.6	85-125	0			
Ethylbenzene	19.34	1.0	20	0	96.7	85-125	0			
m,p-Xylene	39.54	2.0	40	0	98.8	75-130	0			
o-Xylene	19.03	1.0	20	0	95.2	80-125	0			
Toluene	19.94	1.0	20	0	99.7	85-125	0			
Xylenes, Total	58.57	3.0	60	0	97.6	80-126	0			
Surr: 1,2-Dichloroethane-d4	18.2	0	20	0	91	75-120	0			
Surr: 4-Bromofluorobenzene	20.72	0	20	0	104	80-110	0			
Surr: Dibromofluoromethane	18.28	0	20	0	91.4	85-115	0			
Surr: Toluene-d8	20.4	0	20	0	102	85-110	0			

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

Client: LT Environmental, Inc
Work Order: 1509414
Project: Pipeline Release SESW SEC25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **R171255** Instrument ID **VMS9** Method: **SW8260**

MS				Sample ID: 1509265-03A MS			Units: µg/L		Analysis Date: 9/9/2015 11:11 PM	
Client ID:		Run ID: VMS9_150909A			SeqNo: 3451448		Prep Date:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	938.5	50	1000	17.05	92.1	85-125	0			
Ethylbenzene	1409	50	1000	551.2	85.8	85-125	0			
m,p-Xylene	4074	100	2000	2400	83.7	75-130	0			
o-Xylene	2064	50	1000	1262	80.2	80-125	0			
Toluene	4862	50	1000	4293	57	85-125	0			SO
Xylenes, Total	6137	150	3000	3661	82.5	80-126	0			
Surr: 1,2-Dichloroethane-d4	957	0	1000	0	95.7	75-120	0			
Surr: 4-Bromofluorobenzene	1038	0	1000	0	104	80-110	0			
Surr: Dibromofluoromethane	973.5	0	1000	0	97.4	85-115	0			
Surr: Toluene-d8	978.5	0	1000	0	97.8	85-110	0			

MSD				Sample ID: 1509265-03A MSD			Units: µg/L		Analysis Date: 9/9/2015 11:36 PM	
Client ID:		Run ID: VMS9_150909A			SeqNo: 3451450		Prep Date:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	953.5	50	1000	17.05	93.6	85-125	938.5	1.59	30	
Ethylbenzene	1432	50	1000	551.2	88	85-125	1409	1.58	30	
m,p-Xylene	4148	100	2000	2400	87.4	75-130	4074	1.8	30	
o-Xylene	2082	50	1000	1262	82	80-125	2064	0.869	30	
Toluene	4926	50	1000	4293	63.4	85-125	4862	1.31	30	SO
Xylenes, Total	6229	150	3000	3661	85.6	80-126	6137	1.49	30	
Surr: 1,2-Dichloroethane-d4	975	0	1000	0	97.5	75-120	957	1.86	30	
Surr: 4-Bromofluorobenzene	1038	0	1000	0	104	80-110	1038	0.0963	30	
Surr: Dibromofluoromethane	967.5	0	1000	0	96.8	85-115	973.5	0.618	30	
Surr: Toluene-d8	981.5	0	1000	0	98.2	85-110	978.5	0.306	30	

The following samples were analyzed in this batch:

1509414-02A

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

Client: LT Environmental, Inc
Work Order: 1509414
Project: Pipeline Release SESW SEC25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **R171312** Instrument ID **VMS9** Method: **SW8260**

MBLK				Sample ID: VBLKW2-150909-R171312				Units: µg/L		Analysis Date: 9/10/2015 02:59 AM	
Client ID:			Run ID: VMS9_150909B			SeqNo: 3451900		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	ND	1.0									
Ethylbenzene	ND	1.0									
m,p-Xylene	ND	2.0									
o-Xylene	ND	1.0									
Toluene	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 1,2-Dichloroethane-d4	19	0	20	0	95	75-120	0				
Surr: 4-Bromofluorobenzene	17.69	0	20	0	88.4	80-110	0				
Surr: Dibromofluoromethane	19.33	0	20	0	96.6	85-115	0				
Surr: Toluene-d8	18.51	0	20	0	92.6	85-110	0				

LCS				Sample ID: VLCSW2-150909-R171312			Units: µg/L		Analysis Date: 9/10/2015 01:43 AM		
Client ID:			Run ID: VMS9_150909B			SeqNo: 3451899		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	19.68	1.0	20	0	98.4	85-125	0				
Ethylbenzene	20.06	1.0	20	0	100	85-125	0				
m,p-Xylene	41.44	2.0	40	0	104	75-130	0				
o-Xylene	20.44	1.0	20	0	102	80-125	0				
Toluene	20.44	1.0	20	0	102	85-125	0				
Xylenes, Total	61.88	3.0	60	0	103	80-126	0				
Surr: 1,2-Dichloroethane-d4	18.51	0	20	0	92.6	75-120	0				
Surr: 4-Bromofluorobenzene	20.83	0	20	0	104	80-110	0				
Surr: Dibromofluoromethane	18.54	0	20	0	92.7	85-115	0				
Surr: Toluene-d8	19.49	0	20	0	97.4	85-110	0				

MS				Sample ID: 1509265-17A MS			Units: µg/L		Analysis Date: 9/10/2015 11:54 AM		
Client ID:			Run ID: VMS9_150909B		SeqNo: 3452278		Prep Date:		DF: 500		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	9680	500	10000	0	96.8	85-125	0				
Ethylbenzene	8510	500	10000	0	85.1	85-125	0				
m,p-Xylene	17860	1,000	20000	0	89.3	75-130	0				
o-Xylene	8620	500	10000	0	86.2	80-125	0				
Toluene	8910	500	10000	0	89.1	85-125	0				
Xylenes, Total	26480	1,500	30000	0	88.3	80-126	0				
Surr: 1,2-Dichloroethane-d4	10450	0	10000	0	104	75-120	0				
Surr: 4-Bromofluorobenzene	10460	0	10000	0	105	80-110	0				
Surr: Dibromofluoromethane	10700	0	10000	0	107	85-115	0				
Surr: Toluene-d8	9760	0	10000	0	97.6	85-110	0				

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

Client: LT Environmental, Inc
Work Order: 1509414
Project: Pipeline Release SESW SEC25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **R171312** Instrument ID **VMS9** Method: **SW8260**

MSD				Sample ID: 1509265-17A MSD			Units: µg/L		Analysis Date: 9/10/2015 12:20 PM	
Client ID:				Run ID: VMS9_150909B			SeqNo: 3452279		Prep Date:	
									DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	8780	500	10000	0	87.8	85-125	9680	9.75	30	
Ethylbenzene	8680	500	10000	0	86.8	85-125	8510	1.98	30	
m,p-Xylene	18340	1,000	20000	0	91.7	75-130	17860	2.6	30	
o-Xylene	8745	500	10000	0	87.4	80-125	8620	1.44	30	
Toluene	9045	500	10000	0	90.4	85-125	8910	1.5	30	
Xylenes, Total	27080	1,500	30000	0	90.3	80-126	26480	2.22	30	
Surr: 1,2-Dichloroethane-d4	9925	0	10000	0	99.2	75-120	10450	5.15	30	
Surr: 4-Bromofluorobenzene	10380	0	10000	0	104	80-110	10460	0.816	30	
Surr: Dibromofluoromethane	11520	0	10000	0	115	85-115	10700	7.38	30	S
Surr: Toluene-d8	9610	0	10000	0	96.1	85-110	9760	1.55	30	

The following samples were analyzed in this batch: 1509414-01A

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

Client: LT Environmental, Inc
Work Order: 1509414
Project: Pipeline Release SESW SEC25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75844** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MBLK-75844-75844				Units: mg/L		Analysis Date: 9/10/2015 04:00 PM		
Client ID:		Run ID: TDS_150910A			SeqNo: 3452891		Prep Date: 9/10/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS		Sample ID: LCS-75844-75844					Units: mg/L		Analysis Date: 9/10/2015 04:00 PM		
Client ID:			Run ID: TDS_150910A			SeqNo: 3452890		Prep Date: 9/10/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Total Dissolved Solids 490 10 495 0 99 80-120 0

DUP				Sample ID: 1509364-05A DUP				Units: mg/L		Analysis Date: 9/10/2015 04:00 PM			
Client ID:				Run ID: TDS_150910A				SeqNo: 3452871		Prep Date: 9/10/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Total Dissolved Solids 1410 50 0 0 0 0-0 1425 1.06 10

DUP				Sample ID: 1509414-01B DUP				Units: mg/L		Analysis Date: 9/10/2015 04:00 PM													
Client ID: Seep 01 Surface Water				Run ID: TDS_150910A				SeqNo: 3452884		Prep Date: 9/10/2015		DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Total Dissolved Solids 1400 20 0 0 0 0-0 1398 0.143 10

The following samples were analyzed in this batch:

1509414-01B

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

Client: LT Environmental, Inc
Work Order: 1509414
Project: Pipeline Release SESW SEC25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **R171341** Instrument ID **IC4** Method: **SW9056A**

MBLK		Sample ID: CCB/MBLK-R171341				Units: mg/L		Analysis Date: 9/10/2015 07:45 AM		
Client ID:		Run ID: IC4_150910A				SeqNo: 3452177		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.3012	1.0								J
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R171341				Units: mg/L		Analysis Date: 9/10/2015 08:06 AM		
Client ID:		Run ID: IC4_150910A				SeqNo: 3452178		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.317	1.0	10	0	93.2	88-110	0			
Sulfate	9.57	1.0	10	0	95.7	85-110	0			

MS		Sample ID: 1509414-01B MS				Units: mg/L		Analysis Date: 9/10/2015 10:05 AM		
Client ID: Seep 01 Surface Water		Run ID: IC4_150910A				SeqNo: 3452180		Prep Date:		DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	565.3	50	500	38.02	105	75-125	0			
Sulfate	726.3	50	500	190.5	107	75-125	0			

MSD		Sample ID: 1509414-01B MSD				Units: mg/L		Analysis Date: 9/10/2015 10:25 AM		
Client ID: Seep 01 Surface Water		Run ID: IC4_150910A				SeqNo: 3452181		Prep Date:		DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	567.6	50	500	38.02	106	75-125	565.3	0.421	20	
Sulfate	728.3	50	500	190.5	108	75-125	726.3	0.267	20	

The following samples were analyzed in this batch:

1509414-01B

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



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

1509414

Page 1 of 1

[illegible]

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

US Technichem (HK) Pty Ltd Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Tel: +852 2610 1044 Fax: +852 2610 2021 Email: HongKong@alsglobal.com

400

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: 08SEP15
 ACTWGT: 57.00 LB
 CAD: 2264840/NET3670
 DIMS: 26x18x18 IN
 BILL SENDER

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

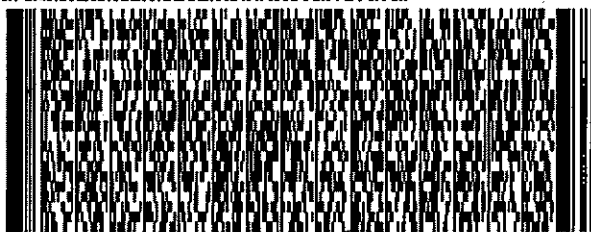
HOLLAND MI 49424

(616) 399-6070

REF: 090815-1

INV
 PO: PARACHUTE

DEPT:



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 Express



REL#
 3785346

3 of 3

MPS#

0263

7744 6294 2332

Mstr# 7744 6294 1910

0201

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PRIORITY OVERNIGHT

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Time 1:00 Date 9/8/15
 Name Nick Martinez

Additional charge, document your actual loss and file a claim to recover from FedEx for any loss, including intrinsic and other forms of damage whether direct, declared value. Recovery cannot exceed actual declared value. Precious metals, negotiable instruments and other items listed in our Service Guide.

Sample Receipt Checklist

Client Name: LTENV

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

Work Order: 1509414

Received by: KRW

Checklist completed by Keith Wurenga
eSignature

09-Sep-15
Date

Reviewed by: Lee Drndol
eSignature

09-Sep-15
Date

Matrices: Water

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>4.0/4.0 C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/9/2015 10:58:14 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Client: LT Environmental, Inc
Project: Pipeline Release SESW Sec 25 6S 92W-Scott
Work Order: 1509124

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>
1509124-01	SS01 @ 3'	Soil		9/1/2015 11:20	9/2/2015 09:30	<input type="checkbox"/>
1509124-02	SS01 @ 4.5'	Soil		9/1/2015 11:25	9/2/2015 09:30	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Piepline Release SESW Sec 25 6S 92W-Scott
Work Order: 1509124

Case Narrative

Samples for the above noted Work Order were received on 09/02/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

All sample analyses achieved analytical criteria.

Metals:

No other deviations or anomalies were noted.

Wet Chemistry:

No other deviations or anomalies were noted.

<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
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: 08-Sep-15

Client: LT Environmental, Inc
Project: Piepline Release SESW Sec 25 6S 92W-Scott
Sample ID: SS01 @ 3'
Collection Date: 9/1/2015 11:20 AM

Work Order: 1509124
Lab ID: 1509124-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 9/4/15	Analyst: JEC
Calcium	16		5.0	mg/L	10	9/4/2015 11:52 AM
Magnesium	12		2.0	mg/L	10	9/4/2015 11:52 AM
Sodium	1,100		2.0	mg/L	10	9/4/2015 11:52 AM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 9/4/15	Analyst: JEC
Sodium Adsorption Ratio	52		0.010	none	1	9/4/2015
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 9/4/15	Analyst: JB
Electrical Conductivity @ Saturation	6.4		0.050	mmhos/cm @2	10	9/4/2015 05:15 PM
MOISTURE			E160.3M			Analyst: TM
Moisture	18		0.050	% of sample	1	9/4/2015 10:33 AM
PH			SW9045D		Prep: EXTRACT / 9/4/15	Analyst: KF
pH	9.0			s.u.	1	9/4/2015 08:00 PM

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

ALS Group USA, Corp

Date: 08-Sep-15

Client: LT Environmental, Inc
Project: Piepline Release SESW Sec 25 6S 92W-Scott
Sample ID: SS01 @ 4.5'
Collection Date: 9/1/2015 11:25 AM

Work Order: 1509124
Lab ID: 1509124-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 9/4/15	Analyst: JEC
Calcium	23		5.0	mg/L	10	9/4/2015 11:58 AM
Magnesium	14		2.0	mg/L	10	9/4/2015 11:58 AM
Sodium	1,400		2.0	mg/L	10	9/4/2015 11:58 AM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 9/4/15	Analyst: JEC
Sodium Adsorption Ratio	57		0.010	none	1	9/4/2015
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 9/4/15	Analyst: JB
Electrical Conductivity @ Saturation	7.8		0.050	mmhos/cm @2	10	9/4/2015 05:15 PM
MOISTURE			E160.3M			Analyst: TM
Moisture	14		0.050	% of sample	1	9/4/2015 10:33 AM
PH			SW9045D		Prep: EXTRACT / 9/4/15	Analyst: KF
pH	9.4			s.u.	1	9/4/2015 08:00 PM

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

Client: LT Environmental, Inc

Work Order: 1509124

Project: Piepline Release SESW Sec 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: 75598

Instrument ID ICP2

Method: SW846 6010C

DUP		Sample ID: 1509122-01BDUP				Units: mg/L		Analysis Date: 9/4/2015 11:40 AM		
Client ID:		Run ID: ICP2_150904A				SeqNo: 3447085		Prep Date: 9/4/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	31.38	5.0	0	0	0	0-0	54.03	53.1		
Magnesium	10.95	2.0	0	0	0	0-0	30.71	94.9		
Sodium	1453	2.0	0	0	0	0-0	1501	3.25		

DUP		Sample ID: 1509122-01BDUP				Units: none		Analysis Date: 9/4/2015		
Client ID:		Run ID: SAR_150904A				SeqNo: 3447175		Prep Date: 9/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	56.91	0.010	0	0	0		40.4	33.9	50	

The following samples were analyzed in this batch:

1509124-01A 1509124-02A

Batch ID: 75598

Instrument ID WETCHEM

Method: USDA H60 Metho

DUP		Sample ID: 1509122-01B DUP				Units: mmhos/cm @25°		Analysis Date: 9/4/2015 05:15 PM		
Client ID:		Run ID: WETCHEM_150904N				SeqNo: 3446518		Prep Date: 9/4/2015		DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	8.15	0.12	0	0	0		8.575	5.08	50	

The following samples were analyzed in this batch:

1509124-01A 1509124-02A

Client: LT Environmental, Inc
Work Order: 1509124
Project: Piepline Release SESW Sec 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **75700** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-75700-75700				Units: s.u.		Analysis Date: 9/4/2015 08:00 PM		
Client ID:		Run ID: WETCHEM_150904R				SeqNo: 3446782		Prep Date: 9/4/2015		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

DUP		Sample ID: 1509168-08B DUP				Units: s.u.		Analysis Date: 9/4/2015 08:00 PM		
Client ID:		Run ID: WETCHEM_150904R				SeqNo: 3446796		Prep Date: 9/4/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 7 0 0 0 0 0-0 7.01 0.143 20

DUP		Sample ID: 1509169-01A DUP					Units: s.u.		Analysis Date: 9/4/2015 08:00 PM		
Client ID:			Run ID: WETCHEM_150904R			SeqNo: 3446800		Prep Date: 9/4/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 9.16 0 0 0 0 0-0 8.92 2.65 20

The following samples were analyzed in this batch:

1509124-01A 1509124-02A

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

Client: LT Environmental, Inc
Work Order: 1509124
Project: Piepline Release SESW Sec 25 6S 92W-Scott

QC BATCH REPORT

Batch ID: **R171146** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: MB-R171146-R171146				Units: % of sample		Analysis Date: 9/4/2015 10:33 AM		
Client ID:		Run ID: MOIST_150904A		SeqNo: 3448236		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-R171146-R171146				Units: % of sample		Analysis Date: 9/4/2015 10:33 AM		
Client ID:		Run ID: MOIST_150904A		SeqNo: 3448237		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: 1509055-01C DUP				Units: % of sample		Analysis Date: 9/4/2015 10:33 AM		
Client ID:		Run ID: MOIST_150904A		SeqNo: 3448217		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 50.07 0.050 0 0 0 50 0.14 20

DUP		Sample ID: 1509108-01A DUP				Units: % of sample		Analysis Date: 9/4/2015 10:33 AM		
Client ID:		Run ID: MOIST_150904A		SeqNo: 3448219		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 6.74 0.050 0 0 0 6.07 10.5 20

The following samples were analyzed in this batch:

1509124-01A 1509124-02A

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.

COC number (for client tracking)

Page 1 of 1

[illegible]

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

LS Technichem (HK) Pty Ltd Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Tel: +852 2810 1044 Fax: +852 2810 2021 Email: HongKong@alsglobal.com

ORIGIN ID: RILA (816) 288-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 01SEP15
 ACTWGT: 42.00 LB
 CAD: 2204840/NET3870
 DIMS: 16x18x14 IN
 BILL SENDER

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

HOLLAND MI 49424

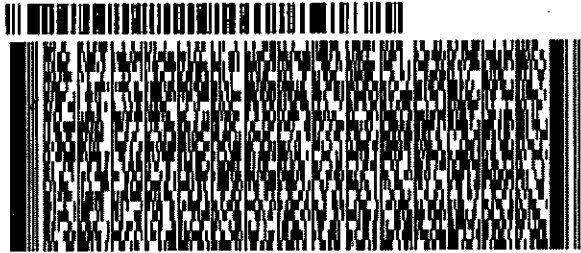
(816) 399-6070

REF: 090115-2

INV
 PO: PARACHUTE

DEPT:

539.12/0369/0100



FedEx
 Express



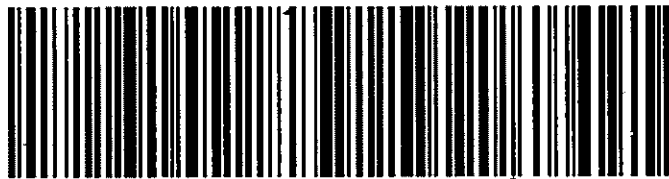
REL#
 3785346

WED - 02 SEP 10:30A
PRIORITY OVERNIGHT

TRK#
 0201 **7744 1876 4092**

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.
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.

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Sample Receipt Checklist

Client Name: **LTENV**

Date/Time Received: **02-Sep-15 09:30**

Work Order: **1509124**

Received by: **KRW**

Checklist completed by Keith Wurenga 02-Sep-15 Reviewed by: Lee Arnold 02-Sep-15
eSignature Date 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>2.8/2.8 C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/2/2015 1:55:38 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: