



The sample was received intact at 12.8°C by ALS.

1409259

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

Dissolved Gasses:

The sample was prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

All acceptance criteria were met.

DRO:

The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Method 8000C and Method 8015D. The procedures are based on this general method because SW-846 does not have a specific method for total extractable petroleum hydrocarbons (TEPH) or diesel range organics. The only true modification from this method is that TEPH is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks.

All acceptance criteria were met.

BART:

The Biological Activity Reaction Test was completed with the Iron-Related Bacteria, Sulfate-Reducing Bacteria, and Slime-Forming Bacteria kit manufactured by Hach Company. The analysis was performed following the manufacturer provided instructions. If the target analyte is not detected (absent), then the sample will be reported with "ND" in the result field. If the target analyte is detected (present), then the sample will be reported with the estimated colony forming units/mL (cfu/mL) as provided by the manufacturer based on the day reaction was observed.

Metals:

The sample was analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.



The sample was to be analyzed for dissolved metals. The sample was filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than 2 prior to analysis.

All acceptance criteria were met with the following exception:

- n Matrix spike recoveries could not be evaluated for the following analyte:

<u>Analyte</u>	<u>Sample ID</u>
Sodium	1409259-1MS/MSD

The concentration of this analyte in the native sample was greater than four times the concentration of matrix spike added during the digestion. When sample concentration is that much greater than the spike added, spike recoveries may not be accurate. The laboratory control sample indicates that the digestion and analysis were in control.

Inorganics:

The sample was analyzed following MCAWW, EMSL, and Standard Method procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H ⁺ B	1126
Total phosphorus	365.2	1119
Specific conductance	SM2510B	1128
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1409259

Client Name: LT Environmental, Inc.

Client Project Name: NGL Baseline

Client Project Number: 54814002

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
NGL-C9	1409259-1		WATER	16-Sep-14	13:15
Trip Blank	1409259-2		WATER	16-Sep-14	



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

PROJECT NAME NGL Baseline		SAMPLER A. OKAMOTO		DATE 09/30/2014		PAGE 1 of 1		WORKORDER # 1409259	
PROJECT No. 54814002		SITE ID NGL-C9		TURNAROUND		DISPOSAL		By Lab or Return to Client	
EDD FORMAT COGCC, LTE		PURCHASE ORDER		Dissolved Methane, Ethane, Propane		Total Cations - See comments		Total Anions - See comments	
BILL TO COMPANY LT Environmental		INVOICE ATTN TO Brett Forkner		DRO		EPA300.0		SM2510B	
ADDRESS 4600 West 60th Ave		ADDRESS 4600 West 60th Ave		BTEX & TPH-GRO		EPA200.7/200.8		SM2540C	
CITY / STATE / ZIP Arvada, CO 80003		CITY / STATE / ZIP Arvada, CO 80003		X		X		X	
PHONE 303-433-9788		PHONE 303-433-9788		X		X		X	
FAX 303-433-1432		FAX 303-433-1432		X		X		X	
E-MAIL averbonitz@itenv.com		E-MAIL averbonitz@itenv.com		X		X		X	
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	Total Phosphorus	
①	NGL-C9	H ₂ O	09/30/14	1315	13	1,3,8		EPA 365.2	
②	TRIP BLANK				2			SM4500-H-B	
								Total Dissolved Solids	
								pH	
								BART	
								BART	

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: Cations/Anions: Barium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Selenium, Sodium, Strontium, Bromide, Chloride, Fluoride, Nitrate as N, Nitrite as N, Sulfate	QC PACKAGE (check below)	
	LEVEL II (Standard QC)	
	LEVEL III (Std QC + forms)	
	LEVEL IV (Std QC + forms + raw data)	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	<i>[Signature]</i>	A. OKAMOTO	09/30/14	1645
RELINQUISHED BY	<i>[Signature]</i>	Erin Peterson	9/16/14	1645
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: LTE Workorder No: 1409259
 Project Manager: ARW Initials: JR Date: 9-16-14
9-17-14

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	<input checked="" type="radio"/> DROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u>X</u> < green pea ___ > green pea	N/A	YES	<input checked="" type="radio"/> NO
15. Do any water samples contain sediment? Amount of sediment: ___ dusting ___ moderate ___ heavy	Amount N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4		<input checked="" type="radio"/> YES	<input checked="" type="radio"/> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>12.8°</u> <input checked="" type="radio"/>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>13</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO <input checked="" type="radio"/> NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

*14 -> 1409259-1-1, -1-7, -2-1, -2-2

Samples delivered day of collection.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 9/17/14

Client: LT Environmental, Inc.
Project: 54814002 NGL Baseline
Sample ID: NGL-C9
Legal Location:
Collection Date: 9/16/2014 13:15

Date: 29-Sep-14
Work Order: 1409259
Lab ID: 1409259-1
Matrix: WATER

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			SM2320B		Prep Date: 9/19/2014	PrepBy: AJD
TOTAL ALKALINITY AS CaCO3	190		20	MG/L	1	9/19/2014
BICARBONATE AS CaCO3	190		20	MG/L	1	9/19/2014
CARBONATE AS CaCO3	ND		20	MG/L	1	9/19/2014
Biological Activity Reaction Test			BART		Prep Date: 9/17/2014	PrepBy: NAQ
IRON RELATED BACTERIA	500		1	cfu/ml	1	9/25/2014
SLIME FORMING BACTERIA	66500		1	cfu/ml	1	9/25/2014
SULFATE REDUCING BACTERIA	200		1	cfu/ml	1	9/25/2014
Diesel Range Organics			SW8015M		Prep Date: 9/17/2014	PrepBy: JAC
Diesel Range Organics	ND		0.49	MG/L	1	9/19/2014 14:27
Surr: O-TERPHENYL	111		54-123	%REC	1	9/19/2014 14:27
Dissolved Gasses			RSK175		Prep Date: 9/22/2014	PrepBy: JFN
METHANE	4		1	UG/L	1	9/22/2014 15:30
ETHANE	ND		2	UG/L	1	9/22/2014 15:30
PROPANE	ND		1	UG/L	1	9/22/2014 15:30
GC/MS Volatiles			SW8260_25		Prep Date: 9/18/2014	PrepBy: SDW
BENZENE	ND		1	UG/L	1	9/18/2014 14:42
TOLUENE	ND		1	UG/L	1	9/18/2014 14:42
ETHYLBENZENE	ND		1	UG/L	1	9/18/2014 14:42
M+P-XYLENE	ND		1	UG/L	1	9/18/2014 14:42
O-XYLENE	ND		1	UG/L	1	9/18/2014 14:42
TOTAL XYLENES	ND		1	UG/L	1	9/18/2014 14:42
Surr: 4-BROMOFLUOROBENZENE	103		85-115	%REC	1	9/18/2014 14:42
Surr: DIBROMOFLUOROMETHANE	102		84-118	%REC	1	9/18/2014 14:42
Surr: TOLUENE-D8	100		85-115	%REC	1	9/18/2014 14:42
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	9/18/2014 14:42
Ion Chromatography			EPA300.0		Prep Date: 9/17/2014	PrepBy: AJD
BROMIDE	ND		0.2	MG/L	1	9/17/2014 13:34
CHLORIDE	12		0.2	MG/L	1	9/17/2014 13:34
FLUORIDE	0.59		0.1	MG/L	1	9/17/2014 13:34
NITRATE AS N	ND		0.2	MG/L	1	9/17/2014 13:34
NITRITE AS N	ND		0.1	MG/L	1	9/17/2014 13:34
SULFATE	45		1	MG/L	1	9/17/2014 13:34
Dissolved Metals by 200.8			EPA200.8		Prep Date: 9/24/2014	PrepBy: NAQ
BARIUM	0.033		0.001	MG/L	10	9/25/2014 13:27
BORON	0.14		0.05	MG/L	10	9/25/2014 13:27
CALCIUM	8.4		1	MG/L	10	9/25/2014 13:27
IRON	ND		0.1	MG/L	10	9/25/2014 13:27
MAGNESIUM	1.9		0.1	MG/L	10	9/25/2014 13:27
MANGANESE	0.011		0.002	MG/L	10	9/25/2014 13:27
POTASSIUM	3.1		1	MG/L	10	9/25/2014 13:27

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SAMPLE SUMMARY REPORT

Client: LT Environmental, Inc.
Project: 54814002 NGL Baseline
Sample ID: NGL-C9
Legal Location:
Collection Date: 9/16/2014 13:15

Date: 29-Sep-14
Work Order: 1409259
Lab ID: 1409259-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SELENIUM	0.0013		0.001	MG/L	10	9/25/2014 13:27
SODIUM	110		1	MG/L	10	9/25/2014 13:27
STRONTIUM	0.16		0.001	MG/L	10	9/25/2014 13:27
pH			SM4500-H		Prep Date: 9/19/2014	PrepBy: AJD
PH	8.44		0.1	pH	1	9/19/2014
Specific Conductance in Water			SM2510B		Prep Date: 9/19/2014	PrepBy: AJD
SPECIFIC CONDUCTIVITY	489		1	umhos/cm	1	9/19/2014
Total Dissolved Solids			SM2540C		Prep Date: 9/22/2014	PrepBy: KMP
TOTAL DISSOLVED SOLIDS	280		20	MG/L	1	9/23/2014
Total Phosphorus as P			EPA365.2		Prep Date: 9/29/2014	PrepBy: AJD
TOTAL PHOSPHORUS	ND		0.05	MG/L	1	9/29/2014

Client: LT Environmental, Inc.
Project: 54814002 NGL Baseline
Sample ID: Trip Blank
Legal Location:
Collection Date: 9/16/2014

Date: 29-Sep-14
Work Order: 1409259
Lab ID: 1409259-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles			SW8260_25		Prep Date: 9/18/2014	PrepBy: SDW
BENZENE	ND			1 UG/L	1	9/18/2014 15:04
TOLUENE	ND			1 UG/L	1	9/18/2014 15:04
ETHYLBENZENE	ND			1 UG/L	1	9/18/2014 15:04
M+P-XYLENE	ND			1 UG/L	1	9/18/2014 15:04
O-XYLENE	ND			1 UG/L	1	9/18/2014 15:04
TOTAL XYLENES	ND			1 UG/L	1	9/18/2014 15:04
Surr: 4-BROMOFLUOROBENZENE	104		85-115	%REC	1	9/18/2014 15:04
Surr: DIBROMOFLUOROMETHANE	101		84-118	%REC	1	9/18/2014 15:04
Surr: TOLUENE-D8	98		85-115	%REC	1	9/18/2014 15:04
GASOLINE RANGE ORGANICS	ND			100 UG/L	1	9/18/2014 15:04

Client: LT Environmental, Inc.
Project: 54814002 NGL Baseline
Sample ID: Trip Blank
Legal Location:
Collection Date: 9/16/2014

Date: 29-Sep-14
Work Order: 1409259
Lab ID: 1409259-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	L - LCS Recovery below lower control limit.
Y2 - Chemical Yield outside default limits.	H - LCS Recovery above upper control limit.
W - DER is greater than Warning Limit of 1.42	P - LCS, Matrix Spike Recovery within control limits.
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	N - Matrix Spike Recovery outside control limits
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	NC - Not Calculated for duplicate results less than 5 times MDC
G - Sample density differs by more than 15% of LCS density.	B - Analyte concentration greater than MDC.
D - DER is greater than Control Limit	B3 - Analyte concentration greater than MDC but less than Requested MDC.
M - Requested MDC not met.	
LT - Result is less than requested MDC but greater than achieved MDC.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

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Date: 9/29/2014 4:11:

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: EX140917-3-1 Instrument ID: FUELS-1 Method: SW8015M

DUP		Sample ID: 1409259-1			Units: MG/L		Analysis Date: 9/19/2014 14:57			
Client ID: NGL-C9		Run ID: HC140919-7A					Prep Date: 9/17/2014		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.493					0.49			
Surr: O-TERPHENYL	1.49		1.37		109	54-123				

LCS		Sample ID: EX140917-3			Units: MG/L		Analysis Date: 9/19/2014 13:57			
Client ID:		Run ID: HC140919-7A					Prep Date: 9/17/2014		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	14.4	0.497	13.8		104	36-150			20	
Surr: O-TERPHENYL	1.34		1.38		97	54-123				

MB		Sample ID: EX140917-3			Units: MG/L		Analysis Date: 9/19/2014 12:57			
Client ID:		Run ID: HC140919-7A					Prep Date: 9/17/2014		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.5								
Surr: O-TERPHENYL	1.38		1.39		100	54-123				

The following samples were analyzed in this batch:

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **HC140922-9-2** Instrument ID: **MEE-1** Method: **RSK175**

LCS		Sample ID: HC140922-9			Units: UG/L			Analysis Date: 9/22/2014 13:20			
Client ID:		Run ID: HC140922-9A			Prep Date: 9/22/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
METHANE	122	1	142		86	80-120			25		
ETHANE	239	2	267		90	80-120			25		
PROPANE	340	1	391		87	80-120			25		

LCSD		Sample ID: HC140922-9			Units: UG/L			Analysis Date: 9/22/2014 14:02			
Client ID:		Run ID: HC140922-9A			Prep Date: 9/22/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
METHANE	126	1	142		88	80-120	122	3	25		
ETHANE	245	2	267		92	80-120	239	2	25		
PROPANE	349	1	391		89	80-120	340	3	25		

MB		Sample ID: HC140922-9			Units: UG/L			Analysis Date: 9/22/2014 13:23			
Client ID:		Run ID: HC140922-9A			Prep Date: 9/22/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
METHANE	ND	1									
ETHANE	ND	2									
PROPANE	ND	1									

The following samples were analyzed in this batch:

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **IP140924-3-1** Instrument ID: **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: FP140924-3			Units: MG/L			Analysis Date: 9/25/2014 13:23			
Client ID:		Run ID: IM140925-10A3			Prep Date: 9/24/2014			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BARIUM	0.104	0.001	0.1		104	85-115			20		
BORON	0.913	0.05	1		91	85-115			20		
CALCIUM	9.02	1	10		90	85-115			20		
IRON	5.05	0.1	5		101	85-115			20		
MAGNESIUM	9.51	0.1	10		95	85-115			20		
MANGANESE	0.106	0.002	0.1		106	85-115			20		
POTASSIUM	4.9	1	5		98	85-115			20		
SELENIUM	0.104	0.001	0.1		104	85-115			20		
SODIUM	9.5	1	10		95	85-115			20		
STRONTIUM	0.105	0.001	0.1		105	85-115			20		

MB		Sample ID: FP140924-3			Units: MG/L			Analysis Date: 9/25/2014 13:20			
Client ID:		Run ID: IM140925-10A3			Prep Date: 9/24/2014			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BARIUM	ND	0.001									
BORON	ND	0.05									
CALCIUM	ND	1									
IRON	ND	0.1									
MAGNESIUM	ND	0.1									
MANGANESE	ND	0.002									
POTASSIUM	ND	1									
SELENIUM	ND	0.001									
SODIUM	ND	1									
STRONTIUM	ND	0.001									

MS		Sample ID: 1409259-1			Units: MG/L			Analysis Date: 9/25/2014 13:36			
Client ID: NGL-C9		Run ID: IM140925-10A3			Prep Date: 9/24/2014			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BARIUM	0.137	0.001	0.1	0.033	104	70-130			20		
BORON	1.01	0.05	1	0.14	87	70-130			20		
CALCIUM	17.3	1	10	8.4	89	70-130			20		
IRON	5.17	0.1	5	0.1	103	70-130			20		
MAGNESIUM	12.1	0.1	10	1.9	102	70-130			20		
MANGANESE	0.112	0.002	0.1	0.011	101	70-130			20		
POTASSIUM	8.1	1	5	3.1	100	70-130			20		
SELENIUM	0.105	0.001	0.1	0.0013	104	70-130			20		
SODIUM	113	1	10	110	53	70-130			20		
STRONTIUM	0.27	0.001	0.1	0.16	106	70-130			20		

Client: LT Environmental, Inc.
Work Order: 1409259
Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **IP140924-3-1** Instrument ID: **ICPMS2** Method: **EPA200.8**

MSD Sample ID: **1409259-1** Units: **MG/L** Analysis Date: **9/25/2014 13:40**
 Client ID: **NGL-C9** Run ID: **IM140925-10A3** Prep Date: **9/24/2014** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BARIUM	0.137	0.001	0.1	0.033	104.2	70-130	0.137	0	20	
BORON	1.02	0.05	1	0.14	88	70-130	1.01	1	20	
CALCIUM	16.3	1	10	8.4	78.9	70-130	17.3	6	20	
IRON	5.24	0.1	5	0.1	105	70-130	5.17	1	20	
MAGNESIUM	12	0.1	10	1.9	100.4	70-130	12.1	1	20	
MANGANESE	0.115	0.002	0.1	0.011	104.4	70-130	0.112	3	20	
POTASSIUM	8.06	1	5	3.1	98.9	70-130	8.1	0	20	
SELENIUM	0.107	0.001	0.1	0.0013	105.3	70-130	0.105	2	20	
SODIUM	116	1	10	110	78.6	70-130	113	2	20	
STRONTIUM	0.272	0.001	0.1	0.16	108.1	70-130	0.27	1	20	

The following samples were analyzed in this batch:

1409259-1

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: VL140918-3-1 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL140918-3			Units: %REC			Analysis Date: 9/18/2014 13:14			
Client ID:		Run ID: VL140918-3A			Prep Date: 9/18/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUORO	25.4		25		102	85-115					
Surr: DIBROMOFLUORO	25.8		25		103	84-118					
Surr: TOLUENE-D8	24.3		25		97	85-115					
BENZENE	9.6	1	10		96	83-117			20		
TOLUENE	9.1	1	10		91	82-113			20		
ETHYLBENZENE	9.56	1	10		96	81-113			20		
M+P-XYLENE	19	1	20		95	82-115			20		
O-XYLENE	9.46	1	10		95	81-115			20		

LCSD		Sample ID: VL140918-3			Units: %REC			Analysis Date: 9/18/2014 13:36			
Client ID:		Run ID: VL140918-3A			Prep Date: 9/18/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUORO	25		25		100	85-115		2			
Surr: DIBROMOFLUORO	25.8		25		103	84-118		0			
Surr: TOLUENE-D8	24.7		25		99	85-115		1			
BENZENE	9.83	1	10		98	83-117	9.6	2	20		
TOLUENE	9.76	1	10		98	82-113	9.1	7	20		
ETHYLBENZENE	9.84	1	10		98	81-113	9.56	3	20		
M+P-XYLENE	19.6	1	20		98	82-115	19	3	20		
O-XYLENE	10.1	1	10		101	81-115	9.46	6	20		

MB		Sample ID: VL140918-3			Units: %REC			Analysis Date: 9/18/2014 14:20			
Client ID:		Run ID: VL140918-3A			Prep Date: 9/18/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUORO	26.3		25		105	85-115					
Surr: DIBROMOFLUORO	25		25		100	84-118					
Surr: TOLUENE-D8	24.7		25		99	85-115					
BENZENE	ND	1									
TOLUENE	ND	1									
ETHYLBENZENE	ND	1									
M+P-XYLENE	ND	1									
O-XYLENE	ND	1									
TOTAL XYLENES	ND	1									

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **VL140918-3-4** Instrument ID: **HPV1** Method: **SW8260_25**

LCS		Sample ID: VL140918-9			Units: UG/L			Analysis Date: 9/18/2014 11:44			
Client ID:		Run ID: VL140918-3A			Prep Date: 9/18/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGA	428	100	500		86	80-120			20		

LCSD		Sample ID: VL140918-9			Units: UG/L			Analysis Date: 9/18/2014 12:06			
Client ID:		Run ID: VL140918-3A			Prep Date: 9/18/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGA	412	100	500		82	80-120	428	4	20		

MB		Sample ID: VL140918-3			Units: UG/L			Analysis Date: 9/18/2014 14:20			
Client ID:		Run ID: VL140918-3A			Prep Date: 9/18/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGA	ND	100									

The following samples were analyzed in this batch: 1409259-1 1409259-2

Client: LT Environmental, Inc.
Work Order: 1409259
Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **AK140919-1-2** Instrument ID: **Balance** Method: **SM2320B**

LCS		Sample ID: AK140919-1			Units: MG/L			Analysis Date: 9/19/2014		
Client ID:		Run ID: AK140919-1A1			Prep Date: 9/19/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS Ca	100	5	100		100	85-115			15	

MB		Sample ID: AK140919-1			Units: MG/L			Analysis Date: 9/19/2014		
Client ID:		Run ID: AK140919-1A1			Prep Date: 9/19/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS Ca	ND	5								
BICARBONATE AS CaCO	ND	5								
CARBONATE AS CaCO3	ND	5								

The following samples were analyzed in this batch: 1409259-1

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **IC140917-2-2** Instrument ID: **IC** Method: **EPA300.0**

LCS		Sample ID: IC140917-2			Units: MG/L			Analysis Date: 9/17/2014 12:51			
Client ID:		Run ID: IC140917-1A3			Prep Date: 9/17/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BROMIDE	5.04	0.2	5		101	90-110			15		
CHLORIDE	4.98	0.2	5		100	90-110			15		
FLUORIDE	1.97	0.1	2		99	90-110			15		
NITRATE AS N	4.91	0.2	5		98	90-110			15		
NITRITE AS N	1.87	0.1	2		94	90-110			15		
SULFATE	19.3	1	20		96	90-110			15		

MB		Sample ID: IC140917-2			Units: MG/L			Analysis Date: 9/17/2014 13:05			
Client ID:		Run ID: IC140917-1A3			Prep Date: 9/17/2014			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BROMIDE	ND	0.2									
CHLORIDE	ND	0.2									
FLUORIDE	ND	0.1									
NITRATE AS N	ND	0.2									
NITRITE AS N	ND	0.1									
SULFATE	ND	1									

The following samples were analyzed in this batch:

Client: LT Environmental, Inc.
Work Order: 1409259
Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **PH140919-1-1** Instrument ID: **pH-1** Method: **SM4500-H**

DUP Sample ID: **1409259-1** Units: **pH** Analysis Date: **9/19/2014**
Client ID: **NGL-C9** Run ID: **PH140919-1A1** Prep Date: **9/19/2014** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
PH	8.43	0.1					8.44		0.2	

The following samples were analyzed in this batch:

1409259-1

Client: LT Environmental, Inc.
Work Order: 1409259
Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **SC140919-1-1** Instrument ID: **pH-2** Method: **SM2510B**

DUP Sample ID: **1409259-1** Units: **umhos/cm** Analysis Date: **9/19/2014**
Client ID: **NGL-C9** Run ID: **SC140919-1A1** Prep Date: **9/19/2014** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	490	1					489	0	10	

The following samples were analyzed in this batch:

1409259-1

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **TD140922-1-2** Instrument ID: **Balance** Method: **SM2540C**

DUP		Sample ID: 1409259-1			Units: MG/L			Analysis Date: 9/23/2014		
Client ID: NGL-C9		Run ID: TD140923-1A1			Prep Date: 9/22/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLI	277	20					280	2	5	

LCS		Sample ID: TD140922-1			Units: MG/L			Analysis Date: 9/23/2014		
Client ID:		Run ID: TD140923-1A1			Prep Date: 9/22/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLI	392	20	400		98	85-115			5	

MB		Sample ID: TD140922-1			Units: MG/L			Analysis Date: 9/23/2014		
Client ID:		Run ID: TD140923-1A1			Prep Date: 9/22/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLI	ND	20								

The following samples were analyzed in this batch:

Client: LT Environmental, Inc.
 Work Order: 1409259
 Project: 54814002 NGL Baseline

QC BATCH REPORT

Batch ID: **TP140929-1-2** Instrument ID: **Spec** Method: **EPA365.2**

LCS		Sample ID: TP140929-1			Units: MG/L			Analysis Date: 9/29/2014		
Client ID:		Run ID: TP140929-1A1			Prep Date: 9/29/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.514	0.05	0.5		103	80-120			20	

MB		Sample ID: TP140929-1			Units: MG/L			Analysis Date: 9/29/2014		
Client ID:		Run ID: TP140929-1A1			Prep Date: 9/29/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	ND	0.05								

MS		Sample ID: 1409259-1			Units: MG/L			Analysis Date: 9/29/2014		
Client ID: NGL-C9		Run ID: TP140929-1A1			Prep Date: 9/29/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.276	0.05	0.25	0.05	110	80-120			20	

MSD		Sample ID: 1409259-1			Units: MG/L			Analysis Date: 9/29/2014		
Client ID: NGL-C9		Run ID: TP140929-1A1			Prep Date: 9/29/2014			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.276	0.05	0.25	0.05	110	80-120	0.276	0	20	

The following samples were analyzed in this batch: