District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources OIL CONS. DIV DIST. 3

OCT 2 3 2017

Submit 1 Copy to appropriate District Office in

accordance with 19.15.29 NMAC.

Form C-141 Revised April 3, 2017

Final Report

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

			Rele	ease Notific	catio	n and Co	orrective A	ction	l			
						<b>OPERA</b>	ГOR		Initia	al Report	$\boxtimes$	Final Rep
Name of Co	ompany Hi	ilcorp Energy	y Compan	ny		Contact Jen	nnifer Deal					
Address 9a	CR 5793					Telephone N	No. (505) 324-	5128				
Facility Nat	ne Sarah	M. Hedges #	1			Facility Typ	e Gas Well					
Surface Ow	ner Priva	ate		Mineral C	Owner				API No	. 30-045-6	60040	
				LOCA	TIO	N OF REI	LEASE					
Unit Letter I	Section 23	Township 31N	Range 12W	Feet from the 1700	North	h/South Line h	Feet from the 1130	East/V East	West Line	County San Juan C	ounty	
	1		Latitud	le <u>36.881721</u>	<u>5</u> Lo	ongitude10	8.062561	NAD	33			
				NAT	URF	OF REL	EASE					
Type of Rele	ase Produ	ced Water/Hy	drocarbon			Volume of	Release 37.3 BB	Ls	Volume F	Recovered no	one	
Source of Re	lease Tanl	ĸ				Date and H	Hour of Occurrence	e	Date and	Hour of Disc	overy	
Was Immedi	ate Notice (	Given?				If YES To	Whom?		8/8/2017	a) 8:40am		
was infinedi			Yes	No 🗌 Not Re	equired	Cory Smith	h & Vanessa Field	ds				
By Whom? F	aul Keloff					Date and H	Hour 8/8/2017 @	1:35pm				
Was a Water	course Read	ched?	Yes 🛛	No		If YES, Vo	olume Impacting t	the Wate	ercourse.			
If a Watercou	urse was Im	pacted, Descr	ibe Fully.*	k								
Describe Cou	and of Drohl	am and Dama	dial Action	Takan *								
Operator noti	iced produc	ed water and o	condensate	e in the berm com	ing fro	m a hole in the	e manway weld w	hich apr	pears to be	a result of cor	rrosio	n. Operator
plugged the h	nole with Pl	ug n'Dike unt	il further r	epair can occur.	ing no.	in a note in the	mannay nora n	inen app		arebuit of eo.		in operator
Describe Are	a Affected	and Cleanup A	Action Tak	cen.*								
Excavation we clean soil wa required. The	vas approxin s transporte e soil samp	mately 47'x47 ed from Halo S ling report is a	'x16' Dee Services, a attached fo	p. Approximately nd placed in the ex- r review.	y 1309 xcavati	c/yds of soil w ion site. Analy	vas transported to rtical results were	IEI Lan below t	d Farm and the regulato	l Approximat ry standards	ely 13 – no f	09 c/yds of urther action
Liloorn Enor	compon	y will begin d	alination	by avapuation sta	sting th	$a_{2}$ weak of $9/1$	1 to occore the co	1				
I hereby certi	fy that the	information gi	ven above	is true and comp	lete to	the best of my	knowledge and u	nderstar	nd that purs	uant to NMO	)CD ri	ules and
regulations a public health	ll operators or the envi	are required to ronment. The	o report ar acceptance	nd/or file certain r ce of a C-141 repo	elease ort by th	notifications and he NMOCD m	nd perform correc arked as "Final R	tive acti eport" d	ions for rele oes not reli	eases which neve the operation	nay en ator of	idanger liability
should their o	operations h	ave failed to a	dequately	investigate and re	emedia	te contaminati	on that pose a three	eat to gr	ound water	, surface wat	er, hur	man health
or the environ	or local la	ddition, NMC	CD accep	tance of a C-141	report	does not reliev	e the operator of i	responsi	bility for co	ompliance wi	th any	other
icucial, state,	or iocal la	and/or regu	10115.				OIL CONS	SERV	ATION	DIVISIA	N	$\sim$
	L	Jennifer Deal	~				OIL CON	JLICY	11101	DIVISIQ.	1.4	//

٥ V Signature: Approved by Environmental Specialist: Printed Name: Jennifer Deal в Approval Date: Expiration Date: Title: Environmental Specialist E-mail Address: jdeal@hilcorp.com Conditions of Approval: Attached 🗌 Date: 10/17/2017 Phone: (505) 324-5128 \* Attach Additional Sheets If Necessary 1722049031 rs



LT Environmental, Inc.

848 East 2nd Avenue Durango, Colorado 81301 T 970.385.1096 / F 303.433.1432

October 13, 2017

Ms. Jennifer Deal Environmental Specialist Hilcorp Energy Company 9A Road 5793 Farmington, New Mexico 87401

RE: Remediation Report and Request for Closure Hilcorp Energy Company Sarah M. Hedges #1 San Juan County, New Mexico NESE Section 23, Township 31N Range 12W

Dear Ms. Deal:

LT Environmental, Inc. (LTE), on behalf of Hilcorp Energy Company (Hilcorp), presents this report documenting soil investigation and remediation activities at the Sarah M. Hedges #1 natural gas production well (Site). A release occurred that consisted of 37.3 barrels (bbl) of produced water and condensate resulting from a corrosion in the manway weld of an on-site production tank. This report describes soil delineation efforts and excavation activities that remediated the Site to applicable state regulatory standards.

#### SITE DESCRIPTION AND HISTORY

The Site is in the northeast quarter of the southeast quarter of Section 23, Township 31 North, and Range 12 West in San Juan County, New Mexico (Figure 1). The nearest groundwater monitoring well is located approximately 4,335 feet southeast of the Site. Although there is no groundwater data available in that well, other nearby permitted water wells indicate groundwater is between 85 and 90 feet below ground surface (bgs). The nearest surface water body is Hedges Arroyo, which is approximately 190 feet west of the Site. Based on the proximity of Hedges Arroyo and depth to groundwater, the New Mexico Oil Conservation Division (NMOCD) ranking criteria triggers the following remediation action levels: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX (benzene, toluene, ethylbenzene, and xylenes), and 100 mg/kg for (TPH).

On August 8, 2017, Hilcorp personnel discovered a corrosion hole in the manway weld of a 300bbl production tank, which resulted in the release of approximately 37.3 bbl of produced water and condensate. The following day, Hilcorp reported the release to the NMOCD on an initial *C-141 Release Notification and Corrective Action Form.* In response to the release, Hilcorp contractors removed the aboveground and below ground tanks to complete excavation activities.





#### INITIAL EXCAVATION SAMPLING

LTE and Hilcorp directed excavation activities by field screening composite soil samples for volatile organic compounds (VOCs) with a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp per methods in accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, August 13, 1993. On August 18, 2017, LTE personnel were onsite to field screen the north, east, south, west, and floor of the excavation. Based on field screening results, 5-point composite soil samples CS-North, CS-East, CS-South, and CS-West were collected from the walls of the excavation. Composite sampling consisted of thoroughly mixing separate aliquots of soil in a 1-gallon Ziploc<sup>®</sup> bag and placing the mixed soil directly into a precleaned 4-ounce glass jar. The jar was labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples, at 4 degrees Celsius (°C), were hand delivered to a laboratory courier under strict chain-of-custody procedures for delivery to Hall Environmental Analytical Laboratory Sciences (HEAL) of Albuquerque, New Mexico, for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021 and TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by EPA Method 8015.

Laboratory analytical results (Table 1) from the excavation sampling indicated that concentrations of BTEX and TPH in CS-North and CS-East were below the laboratory reporting limits and compliant with the NMOCD site-specific standards. Composite soil sample CS-South exhibited BTEX and TPH concentrations of 63 milligrams per kilogram (mg/kg) and 1,074 mg/kg, respectfully and CS-West exhibited BTEX and TPH concentration of 50 mg/kg and 820 mg/kg, respectfully. Therefore, Hilcorp requested a site investigation be completed to the south and west of the release to delineate soil impacts and evaluate remediation options. The complete HEAL laboratory analytical reports are included as Attachment 1.

#### SITE INVESTIGATION

On August 30 and 31, 2017, LTE advanced soil borings BH-1 through BH-7 to the south and west of the release location. A site map with soil boring and soil sample locations are depicted on Figure 2. Soil boring BH-1 was advanced with a hand auger and refusal was encountered at 16 feet below ground surface (bgs). Soil borings BH-2 through BH-7 were advanced using a hollow-stem auger. Soil borings ranged in depth from 16 feet to 35 feet bgs. Lithology at the Site was generally a silty sand from 0 feet to 15 feet bgs and a sandy silt from 15 feet to 35 feet bgs. The soil boring logs are included as Attachment 2.

Samples were collected with a split-spoon at 5-foot intervals and field screened for VOCs. The soil samples with the highest field screening values, BH-2 at 25 feet bgs (981.3 parts per million [ppm]), BH-4 at 25 feet bgs (1,337 ppm), and BH-6 at 30 feet bgs (856.3 ppm), were submitted for confirmation laboratory analysis. Additionally, soil samples BH-2 at 30 feet bgs, BH-4 at 30 feet bgs, and BH-6 at 35 feet bgs were collected from the bottom of soil borings to document





vertical delineation. The samples were handled as described above and delivered to HEAL for analysis of BTEX by EPA Method 8021 and TPH-GRO, TPH-DRO, TPH-MRO by EPA Method 8015.

Samples were collected from soil borings BH-5 and BH-7 and placed on hold for laboratory analysis in the event that samples from soil boring BH-2, BH-4, or BH-6 were not in compliance with the NMOCD site-specific standards. No sample was analyzed from soil boring BH-3, as visual observations and field screening results indicated no hydrocarbon impacts. Laboratory analytical results indicated soil collected from soil borings BH-2, BH-4, and BH-6 were compliant with the NMOCD site-specific standards. Therefore, no additional samples were analyzed from soil borings BH-5 or BH-7.

#### **CLOSURE EXCAVATION SAMPLING**

Based on field and laboratory results from the initial excavation sampling and site investigation, Hilcorp increased the excavation extent to the south and west, and advanced the depth of the excavation to approximately 23 feet bgs (Figure 2). On September 26, 2017, LTE collected three 5-point composite soil samples from the new excavation sidewalls (S Wall Sample, SW Wall Sample, and W Wall Sample), one 6-point composite soil sample from the floor of the excavation (Floor Sample), and, as requested by on-site NMOCD personnel, a discrete soil sample (Grab Sample) from a small area of staining on the floor near the south wall. On October 4, 2017, Hilcorp advanced a pothole immediately east of the excavation to 13 feet bgs. The excavation samples were submitted under the same preparation guidelines and laboratory analyses listed above.

#### **CLOSURE SAMPLING RESULTS**

Laboratory analytical results indicate soil samples collected from the north and east walls of the excavation on August 18, 2017 and samples collected from the floor, south wall, southwest wall, and west wall on September 26, 2017 were compliant with the NMOCD site-specific standards for benzene, total BTEX, and TPH. The discrete Grab Sample analytical results indicated a TPH concentration of 290 mg/kg. Laboratory analytical results for the soil sample collected from the pothole east of the excavation indicated no concentrations of benzene, total BTEX, or TPH exceeded the NMOCD site-specific standard.

#### **NO FURTHER ACTION REQUEST**

Field and laboratory analytical results indicated the final extend of the excavation walls, the composite soil sample of the base of the excavation, and the pothole sample east of the excavation are compliant with the NMOCD site-specific standards for benzene, total BTEX, and TPH. The Grab Sample collected within the excavation exceeded the NMOCD site-specific standard for





Deal, J. Page 4

TPH; however, the sample represented only a small area of residual impact at 23 feet bgs that is unlikely to migrate to nearby receptors, particularly because the elevated concentrations occur at depth and all other source material has been removed. Based on these results, LTE recommends Hilcorp request that No Further Action be required for the Site.

LTE appreciates the opportunity to provide this report to Hilcorp. If you have any questions or comments, do not hesitate to contact me at (970) 385-1096 or via email at wtoews@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Michael A. Wicker Staff Geologist

Attachments:

Ashley L. ager

Ashley Ager Senior Geologist

Figure 1 – Site Location Map Figure 2 – Site Map, Sample Locations Table 1 – Soil Analytical Results Attachment 1 – Laboratory Analytical Reports Attachment 2 – Soil Boring Logs



**FIGURES** 







P:\Hilcorp\GIS\MXD\017817002\_SARAH M HEDGES\017817002\_FIG02\_SITE.mxd

TABLES



# TABLE 1 SOIL ANALYTICAL RESULTS

#### SARAH M. HEDGES #1 SAN JUAN COUNTY, NEW MEXICO HILCORP ENERGY COMPANY

Soil Sample Identification	Sample Date	Field Headspace (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	TPH (mg/kg)
CS-North	8/18/2017	14.6	<0.019	< 0.037	< 0.037	< 0.074	<0.074	<3.7	<9.9	<49	<49
CS-South	8/18/2017	1,553	0.23	11	4.3	47	63	980	94	<49	1,074
CS-East	8/18/2017	94.6	<0.016	<0.033	<0.033	<0.066	<0.066	<3.3	<9.7	<48	<48
CS-West	8/18/2017	1,664	0.052	2.8	3.5	44	50	790	30	<50	820
BH-2 @ 25'	8/31/2017	981.3	<0.025	< 0.050	<0.050	<0.10	<0.10	12	<9.4	<47	12
BH-2 @ 30'	8/31/2017	372.5	<0.024	<0.047	<0.047	0.12	0.120	7.8	<9.5	<47	7.8
BH-4 @ 25'	8/31/2017	1,337	< 0.024	< 0.048	< 0.048	0.22	0.22	10	<9.4	<47	10
BH-4 @ 30'	8/31/2017	38.3	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.9	<49	<49
BH-6 @ 30'	8/31/2017	856.3	<0.025	<0.050	<0.050	<0.099	<0.099	16	13	<49	29
BH-6 @ 35'	8/31/2017	70.7	< 0.024	< 0.047	<0.047	<0.095	<0.095	<4.7	<10	<51	<51
Floor Sample	9/26/2017	0.0	<0.020	<0.040	<0.040	<0.081	<0.081	<4.0	<10	· <50	<50
Grab Sample	9/26/2017	1,907	<0.088	<0.18	0.40	1.4	1.8	120	170	<50	<b>290</b> ·
S Wall Sample	9/26/2017	0.0	<0.018	<0.037	<0.037	<0.073	<0.073	<3.7	<9.8	<49	<49
SW Wall Sample	9/26/2017	0.0	<0.020	<0.041	<0.041	<0.081	<0.081	<4.1	<9.8	<49	<49
W Wall Sample	9/26/2017	0.0	< 0.021	< 0.042	< 0.042	< 0.084	< 0.084	<4.2	<9.6	<48	<48
East Side	10/4/2017	0.0	<0.020	< 0.040	< 0.040	<0.080	<0.080	<4.0	<9.4	<47	<47
NMOCD Rankin	g Criteria	NE	10	NE	NE	NE	50	NE	NE	NE	100

#### **NOTES:**

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

Bold - indicates result exceeds stated NMOCD standard

BTEX - benzene, toluene, ethylbenzene, total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NE - Not Established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million

TPH - total petroleum hydrocarbons



**ATTACHMENT 1** 

LABORATORY ANALYTICAL REPORTS





Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

August 25, 2017 Ashley Ager LTE 2243 Main Ave Suite 3 Durango, CO 81301 TEL: (970) 946-1093 FAX

RE: Sarah M Hedges #001

OrderNo.: 1708B70

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/19/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1708B70

Date Reported: 8/25/2017

<b>CLIENT</b> :	LTE	Client Sample ID: CS-West										
Project:	Sarah M Hedges #001				Collection	Date: 8/1	8/2017 3:21:00 PM					
Lab ID:	1708B70-001	Matrix:	Matrix: SOIL			Received Date: 8/19/2017 11:00:00 AM						
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch				
EPA MET	HOD 8015M/D: DIESEL RAM	GE ORGANIC	S				Analyst:	том				
Diesel Ra	ange Organics (DRO)	30	10		mg/Kg	1	8/21/2017 11:46:45 AM	33469				
Motor Oil	Range Organics (MRO)	ND	50		mg/Kg	1	8/21/2017 11:46:45 AM	33469				
Surr: D	DNOP	93.0	70-130		%Rec	1	8/21/2017 11:46:45 AM	33469				
EPA MET	HOD 8015D: GASOLINE RA	NGE					Analyst:	NSB				
Gasoline	Range Organics (GRO)	790	82		mg/Kg	20	8/21/2017 12:14:04 PM	G45098				
Surr: E	BFB	266	54-150	S	%Rec	20	8/21/2017 12:14:04 PM	G45098				
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB				
Benzene		0.052	0.021		mg/Kg	1	8/21/2017 9:51:50 AM	B45098				
Toluene		2.8	0.041		mg/Kg	1	8/21/2017 9:51:50 AM	B45098				
Ethylben	zene	3.5	0.041		mg/Kg	1	8/21/2017 9:51:50 AM	B45098				
Xylenes,	Total	44	1.6		mg/Kg	20	8/21/2017 12:14:04 PM	B45098				
Surr: 4	-Bromofluorobenzene	122	66.6-132		%Rec	20	8/21/2017 12:14:04 PM	B45098				

~	
Oua	lifters:

- \* Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
  - J Analyte detected below quantitation limits
  - Sample pH Not In Range Р
  - RL Reporting Detection Limit
  - Sample container temperature is out of limit as specified W

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1708B70

Date Reported: 8/25/2017

CLIENT:	LTE			Client Sampl	e ID: CS	S-North					
<b>Project:</b>	Sarah M Hedges #001	Collection Date: 8/18/2017 3:15:00 PM									
Lab ID:	1708B70-002	Matrix:	SOIL	Received	Received Date: 8/19/2017 11:00:00 AM						
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch				
EPA MET	HOD 8015M/D: DIESEL RAM	IGE ORGANICS	6			Analyst	том				
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	8/21/2017 12:14:51 PM	33469				
Motor Oi	Range Organics (MRO)	ND	49	mg/Kg	1	8/21/2017 12:14:51 PM	33469				
Surr: [	ONOP	87.5	70-130	%Rec	1	8/21/2017 12:14:51 PM	33469				
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst:	NSB				
Gasoline	Range Organics (GRO)	ND	3.7	mg/Kg	1	8/21/2017 12:37:44 PM	G45098				
Surr: E	BFB	97.2	54-150	%Rec	1	8/21/2017 12:37:44 PM	G45098				
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB				
Benzene		ND	0.019	mg/Kg	1	8/21/2017 12:37:44 PM	B45098				
Toluene		ND	0.037	mg/Kg	1	8/21/2017 12:37:44 PM	B45098				
Ethylben	zene	ND	0.037	mg/Kg	1	8/21/2017 12:37:44 PM	B45098				
Xylenes,	Total	ND	0.074	mg/Kg	1	8/21/2017 12:37:44 PM	B45098				
Surr: 4	1-Bromofluorobenzene	105	66.6-132	%Rec	1	8/21/2017 12:37:44 PM	B45098				

Vulnie oxeeeds maximum containmant beve	Qualifiers:	*	Value ex	ceeds N	<b>Aaximum</b>	Contaminant	Level.
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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
  - J Analyte detected below quantitation limits
  - P Sample pH Not In Range
  - RL Reporting Detection Limit
  - W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1708B70

#### Date Reported: 8/25/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT:	LTE			Client Sampl	e ID: CS	S-East		
<b>Project:</b>	Sarah M Hedges #001			Collection	Date: 8/1	18/2017 3:18:00 PM		
Lab ID:	1708B70-003	Matrix:	Received	Received Date: 8/19/2017 11:00:00 AM				
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA MET	THOD 8015M/D: DIESEL RA	NGE ORGANICS	6			Analyst	том	
Diesel R	ange Organics (DRO)	ND	9.7	mg/Kg	1	8/21/2017 12:42:41 PM	33469	
Motor O	il Range Organics (MRO)	ND	48	mg/Kg	1	8/21/2017 12:42:41 PM	33469	
Surr: DNOP		90.9	70-130	%Rec	1	8/21/2017 12:42:41 PM	33469	
EPA MET	THOD 8015D: GASOLINE RA	ANGE				Analyst	NSB	
Gasoline	e Range Organics (GRO)	ND	3.3	mg/Kg	1	8/21/2017 10:39:10 AM	G45098	
Surr:	BFB	97.4	54-150	%Rec	1	8/21/2017 10:39:10 AM	G45098	
EPA MET	THOD 8021B: VOLATILES					Analyst:	NSB	
Benzene	9	ND	0.016	mg/Kg	1	8/21/2017 10:39:10 AM	B45098	
Toluene		ND	0.033	mg/Kg	1	8/21/2017 10:39:10 AM	B45098	
Ethylben	izene	ND	0.033	mg/Kg	1	8/21/2017 10:39:10 AM	B45098	
Xylenes,	Total	ND	0.066	mg/Kg	1	8/21/2017 10:39:10 AM	B45098	
Surr: 4	4-Bromofluorobenzene	104	66.6-132	%Rec	1	8/21/2017 10:39:10 AM	B45098	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte
	D	Sample Diluted Due to Matrix	E	Value at
	Н	Holding times for preparation or analysis exceeded	J	Analyte
	ND	Not Detected at the Reporting Limit	Р	Sample
	PQL	Practical Quanitative Limit	RL	Reportin

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
  - J Analyte detected below quantitation limits
  - P Sample pH Not In Range
  - RL Reporting Detection Limit
  - W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1708B70 Date Reported: 8/25/2017

CLIENT: LTE Client Sample ID: CS-South							
<b>Project:</b>	Sarah M Hedges #001			Collection	Date: 8/1	8/2017 3:24:00 PM	
Lab ID:	1708B70-004	Matrix: S	OIL	Received	Date: 8/1	9/2017 11:00:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	том
Diesel Ra	ange Organics (DRO)	94	9.8	mg/Kg	1	8/21/2017 1:10:25 PM	33469
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	8/21/2017 1:10:25 PM	33469
Surr: D	DNOP	91.7	70-130	%Rec	1	8/21/2017 1:10:25 PM	33469

EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline Range Organics (GRO)	980	21		mg/Kg	5	8/21/2017 11:02:54 AM	G45098
Surr: BFB	737	54-150	S	%Rec	5	8/21/2017 11:02:54 AM	G45098
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	0.23	0.10		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Toluene	11	0.21		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Ethylbenzene	4.3	0.21		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Xylenes, Total	47	0.41		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Surr: 4-Bromofluorobenzene	156	66.6-132	S	%Rec	5	8/21/2017 11:02:54 AM	B45098

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

WO#: 1708B70 25-Aug-17

#### Client: LTE

Project: Sarah M Hedges #001

Sample ID LCS-33469	SampTy	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics								
Prep Date: 8/21/2017	Analysis Da	ite: 8/2	469 21/2017	S	SeqNo: 1	427503	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	73.2	114			
Surr: DNOP	4.6		5.000		91.2	70	130			
	0 T			-					<u> </u>	
Sample ID MB-33469	Samply	pe: ME	SLK	lest	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS	Batch I	ID: 334	469	R	RunNo: 4	5091				
Prep Date: 8/21/2017	Analysis Da	te: 8/2	21/2017	S	SeqNo: 1	427504	Units: mg/k	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		87.7	70	130			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: **1708B70** 25-Aug-17

Client:LTEProject:Sarah M Hedges #001

Sample ID RB	Samp	Туре: МЕ	BLK	Tes	tCode: E	PA Method	8015D: Gas	oline Rang	е	
Client ID: PBS	Batc	h ID: G4	5098	F	RunNo: 4	5098				
Prep Date:	Analysis I	Date: 8/	21/2017	5	SeqNo: 1	427987	Units: mg/l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.1	54	150			
Sample ID 2.5UG GRO LC	s Samp	Type: LC	S	Tes	tCode: E	PA Method	8015D: Gas	oline Rang	e	
Client ID: LCSS	Batc	h ID: G4	5098	F	RunNo: 4	5098				
Prep Date:	Analysis [	Date: 8/	21/2017	5	SeqNo: 1	427988	Units: mg/l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.2	76.4	125			
Surr: BFB	1000		1000		101	54	150			
Sample ID 1708B70-002AN	IS Samp	Type: MS	3	Tes	tCode: E	PA Method	8015D: Gase	oline Rang	e	
Sample ID 1708B70-002AN Client ID: CS-North	IS Samp Batc	Type: MS h ID: G4	5 15098	Tes	tCode: E RunNo: 4	PA Method 5098	8015D: Gase	oline Rang	e	
Sample ID 1708B70-002AN Client ID: CS-North Prep Date:	IS Samp Batc Analysis [	Type: MS h ID: G4 Date: 8/	5 5098 21/2017	Tes F	tCode: E RunNo: 4 SeqNo: 1	PA Method 5098 427989	8015D: Gase Units: mg/l	oline Rang Kg	e	
Sample ID <b>1708B70-002AN</b> Client ID: <b>CS-North</b> Prep Date: Analyte	IS Samp Batc Analysis [ Result	Type: MS h ID: G4 Date: 8/ PQL	5 5098 21/2017 SPK value	Tes F SPK Ref Val	tCode: E RunNo: 4 SeqNo: 1 %REC	PA Method 5098 427989 LowLimit	8015D: Gase Units: mg/ł HighLimit	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO)	IS Samp Batc Analysis I Result 18	Type: <b>MS</b> h ID: <b>G4</b> Date: <b>8</b> / PQL 3.7	5 15098 21/2017 SPK value 18.59	Tes F S SPK Ref Val 1.182	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8	PA Method 5098 427989 LowLimit 77.8	8015D: Gase Units: mg/l HighLimit 128	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO) Surr: BFB	IS Samp Batc Analysis [ Result 18 770	Type: MS h ID: G4 Date: 8/ PQL 3.7	5 5098 21/2017 SPK value 18.59 743.5	Tes F SPK Ref Val 1.182	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8 103	PA Method 5098 427989 LowLimit 77.8 54	8015D: Gas Units: mg/l HighLimit 128 150	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1708B70-002AN	IS Samp Batc Analysis I Result 18 770	Type: <b>MS</b> h ID: <b>G4</b> Date: <b>8</b> / PQL 3.7 Type: <b>MS</b>	S 5098 21/2017 SPK value 18.59 743.5 SD	Tes F SPK Ref Val 1.182 Tes	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8 103 tCode: E	PA Method 5098 427989 LowLimit 77.8 54 PA Method	8015D: Gase Units: mg/J HighLimit 128 150 8015D: Gase	oline Rang Kg %RPD oline Rang	e RPDLimit e	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1708B70-002AN Client ID: CS-North	IS Samp Batc Analysis I Result 18 770 ISD Samp Batc	Туре: <b>М</b> h ID: <b>G4</b> Date: <b>8/</b> <u>РQL</u> 3.7 Гуре: <b>М</b> 5 h ID: <b>G4</b>	5 5098 21/2017 SPK value 18.59 743.5 5D 5098	Tes F SPK Ref Val 1.182 Tes F	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8 103 tCode: E RunNo: 4	PA Method 5098 427989 LowLimit 77.8 54 PA Method 5098	8015D: Gaso Units: mg/l HighLimit 128 150 8015D: Gaso	oline Rang ≺g %RPD oline Rang	e RPDLimit e	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1708B70-002AN Client ID: CS-North Prep Date:	IS Samp Batc Analysis I Result 18 770 ISD Samp Batc Analysis I	Type: <b>MS</b> h ID: <b>G4</b> Date: <b>8/</b> PQL 3.7 Type: <b>MS</b> h ID: <b>G4</b> Date: <b>8</b> /	S 5098 21/2017 SPK value 18.59 743.5 SD 5098 21/2017	Tes F SPK Ref Val 1.182 Tes F S	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8 103 tCode: E RunNo: 4 SeqNo: 1	PA Method 5098 427989 LowLimit 77.8 54 PA Method 5098 427990	8015D: Gase Units: mg/k HighLimit 128 150 8015D: Gase Units: mg/k	oline Rang ≺g %RPD oline Rang	e RPDLimit e	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte	IS Samp Batc Analysis I Result 18 770 ISD Samp Batc Analysis I Result	Type: MS h ID: G4 Date: 8/ PQL 3.7 Type: MS h ID: G4 Date: 8/ PQL	5 5098 21/2017 SPK value 18.59 743.5 50 5098 21/2017 SPK value	Tes F SPK Ref Val 1.182 Tes F SPK Ref Val	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8 103 tCode: E RunNo: 4 SeqNo: 1 %REC	PA Method 5098 427989 LowLimit 77.8 54 PA Method 5098 427990 LowLimit	8015D: Gas Units: mg/l HighLimit 128 150 8015D: Gas Units: mg/l HighLimit	oline Rang Kg %RPD oline Rang Kg %RPD	e RPDLimit e RPDLimit	Qual
Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1708B70-002AN Client ID: CS-North Prep Date: Analyte Gasoline Range Organics (GRO)	IS Samp Batc Analysis I Result 18 770 ISD Samp Batc Analysis I Result 18	Type: MS h ID: G4 Date: 8/ PQL 3.7 Type: MS h ID: G4 Date: 8/ PQL 3.7	S 5098 21/2017 SPK value 18.59 743.5 SD 5098 21/2017 SPK value 18.59 15098	Tes F SPK Ref Val 1.182 Tes F SPK Ref Val 1.182	tCode: E RunNo: 4 SeqNo: 1 %REC 89.8 103 tCode: E RunNo: 4 SeqNo: 1 %REC 87.8	PA Method 5098 427989 LowLimit 77.8 54 PA Method 5098 427990 LowLimit 77.8	8015D: Gas Units: mg/l HighLimit 128 150 8015D: Gas Units: mg/l HighLimit 128	oline Rang Kg %RPD oline Rang Kg %RPD 2.06	e RPDLimit e RPDLimit 20	Qual

#### Qualifiers:

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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: 1708B70

25-Aug-17

Project:	Sarah M	Hedges #(	001								
Sample ID	RB	Samp	Туре: М	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: B4	5098	F	RunNo: 4	5098				
Prep Date:		Analysis [	Date: 8/	21/2017	5	SeqNo: 1	428010	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bron	nofluorobenzene	1.1		1.000		105	66.6	132			
Sample ID	100NG BTEX LCS	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: B4	5098	F	RunNo: 4	5098				
Prep Date:		Analysis [	Date: 8/	21/2017	S	SeqNo: 1	428011	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.90	0.025	1.000	0	90.4	80	120			
Toluene		0.92	0.050	1.000	0	91.8	80	120			
Ethylbenzene		0.92	0.050	1.000	0	91.9	80	120			
Xylenes, Total		2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bron	nofluorobenzene	1.1		1.000		108	66.6	132			
Sample ID	1708B70-003AMS	Samp	Type: MS	6	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Sample ID Client ID:	1708B70-003AMS CS-East	Samp <sup>-</sup> Batc	Гуре: <b>М</b> h ID: <b>В4</b>	5098	Tes F	tCode: El RunNo: 4	PA Method 5098	8021B: Vola	tiles		
Sample ID Client ID: Prep Date:	1708B70-003AMS CS-East	Samp Batc Analysis I	Гуре: <b>М</b> h ID: <b>В4</b> Date: <b>8</b> /	5098 21/2017	Tes F S	tCode: El RunNo: 4 SeqNo: 1	PA Method 5098 428012	8021B: Volat Units: mg/k	tiles (g		
Sample ID Client ID: Prep Date: Analyte	1708B70-003AMS CS-East	Samp Batc Analysis I Result	Гуре: МS h ID: В4 Date: 8/ PQL	5098 21/2017 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 5098 428012 LowLimit	8021B: Vola Units: mg/k HighLimit	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene	1708B70-003AMS CS-East	Samp Batc Analysis E Result 0.64	Fype: MS h ID: <b>B4</b> Date: <b>8</b> / PQL 0.016	5098 21/2017 SPK value 0.6562	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8	PA Method 5098 428012 LowLimit 80.9	8021B: Volar Units: mg/k HighLimit 132	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1708B70-003AMS CS-East	Samp Batc Analysis E Result 0.64 0.64	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033	5098 21/2017 SPK value 0.6562 0.6562	Tes F SPK Ref Val 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7	PA Method 5098 428012 LowLimit 80.9 79.8	8021B: Volat Units: mg/k HighLimit 132 136	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1708B70-003AMS CS-East	Samp Batc Analysis I Result 0.64 0.64 0.63	Type: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033	5098 21/2017 SPK value 0.6562 0.6562 0.6562	Tes F SPK Ref Val 0 0 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7 95.9	PA Method 5098 428012 LowLimit 80.9 79.8 79.4	8021B: Volat Units: mg/k HighLimit 132 136 140	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1708B70-003AMS CS-East	Samp Batc Analysis E Result 0.64 0.63 1.9	Type: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.066	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969	Tes F SPK Ref Val 0 0 0 0.01839	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7 95.9 97.2	PA Method 5098 428012 LowLimit 80.9 79.8 79.8 79.4 78.5	8021B: Volat Units: mg/# HighLimit 132 136 140 142	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	1708B70-003AMS CS-East	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70	Type: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.066	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562	Tes F SPK Ref Val 0 0 0 0 0.01839	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7 95.9 97.2 107	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70 D Samp	Type: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.066	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562	Tes F SPK Ref Val 0 0 0 0.01839 Tes	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7 95.9 97.2 107 tCode: El	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID:	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.64 0.63 1.9 0.70 D Samp Batc	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.033 0.066	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098	Tes F SPK Ref Val 0 0 0 0 0.01839 Tes	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date:	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.64 0.63 1.9 0.70 D Samp Batc Analysis I	Type:         MS           h ID:         B4           Date:         8/           PQL         0.016           0.033         0.033           0.066         0.033           Fype:         MS           Fype:         MS           Date:         8/	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017	Tes F SPK Ref Val 0 0 0 0 0.01839 Tes F S	tCode: El RunNo: 4 SeqNo: 1 %REC 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 14	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k	tiles (g %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.64 0.63 1.9 0.70 D Samp Batcl Analysis I Result	Type:         MS           h ID:         B4           Date:         8/           PQL         0.016           0.033         0.033           0.066         0.033           Type:         MS           M ID:         B4           Date:         8/           PQL         20	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017 SPK value	Tes F SPK Ref Val 0 0 0 0 0.01839 Tes F SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013 LowLimit	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k HighLimit	tiles (g %RPD tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70 D Samp Batcl Analysis I Result 0.61	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.066 Fype: MS h ID: B4 Date: 8/ PQL 0.016	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017 SPK value 0.6562	Tes F SPK Ref Val 0 0 0 0.01839 Tes F SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 1 SeqNo: 1 %REC 93.2	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013 LowLimit 80.9	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k HighLimit 132	tiles (g %RPD tiles (g %RPD 3.83	RPDLimit RPDLimit 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70 D Samp Batc Analysis I Result 0.61 0.62	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.066 Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017 SPK value 0.6562 0.6562 0.6562	Tes F SPK Ref Val 0 0 0.01839 Tes F SPK Ref Val 0 0	tCode: El RunNo: 4 SeqNo: 1 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 1 SeqNo: 1 SeqN	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013 LowLimit 80.9 79.8	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k HighLimit 132 136	tiles (g %RPD tiles (g %RPD 3.83 3.58	RPDLimit RPDLimit 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70 D Samp Batc Analysis I Result 0.61 0.62 0.61	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.066 Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017 SPK value 0.6562 0.6562 0.6562 0.6562	Tes F SPK Ref Val 0 0 0 0.01839 Tes F SPK Ref Val 0 0 0 0	tCode: El RunNo: 4 SeqNo: 1 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 1 %REC 93.2 94.2 92.9	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013 LowLimit 80.9 79.8 79.4	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k HighLimit 132 136 140	tiles (g %RPD tiles (g %RPD 3.83 3.58 3.22	RPDLimit RPDLimit 20 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70 D Samp Batc Analysis I Result 0.61 0.62 0.61 1.9	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.066 Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.033 0.033 0.066	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017 SPK value 0.6562 0.6	Tes F SPK Ref Val 0 0 0 0.01839 Tes SPK Ref Val 0 0 0 0.01839	tCode: El RunNo: 4 SeqNo: 1 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 1 SeqNo: 1 SeqNo: 1 %REC 93.2 94.2 92.9 94.2	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013 LowLimit 80.9 79.8 79.4 79.4 79.4 78.5	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k HighLimit 132 136 140 142	tiles (g %RPD tiles (g %RPD 3.83 3.58 3.22 3.13	RPDLimit RPDLimit 20 20 20 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	1708B70-003AMS CS-East nofluorobenzene 1708B70-003AMSI CS-East	Samp Batc Analysis I Result 0.64 0.63 1.9 0.70 D Samp Batc Analysis I Result 0.61 0.62 0.61 1.9 0.70	Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.066 Fype: MS h ID: B4 Date: 8/ PQL 0.016 0.033 0.033 0.033 0.033 0.033	5098 21/2017 SPK value 0.6562 0.6562 0.6562 1.969 0.6562 5098 21/2017 SPK value 0.6562 0.6562 0.6562 0.6562 1.969 0.6562	Tes F SPK Ref Val 0 0 0 0 0.01839 Tes SPK Ref Val 0 0 0 0 0.01839	tCode: El RunNo: 4 SeqNo: 1 96.8 97.7 95.9 97.2 107 tCode: El RunNo: 4 SeqNo: 1 %REC 93.2 94.2 92.9 94.2 106	PA Method 5098 428012 LowLimit 80.9 79.8 79.4 78.5 66.6 PA Method 5098 428013 LowLimit 80.9 79.8 79.4 79.8 79.4 78.5 66.6	8021B: Volat Units: mg/k HighLimit 132 136 140 142 132 8021B: Volat Units: mg/k HighLimit 132 136 140 142 132	tiles (g %RPD tiles (g %RPD 3.83 3.58 3.22 3.13 0	RPDLimit RPDLimit 20 20 20 20 0 0	Qual

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 8 of 10

	HALL ENVIR ANAL LABOI	XONMENTA YSIS RATORY	Hall TEL. W	Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com				nple Log-In C	heck List		
Cli	ent Name:	LTE		Work (	Order Number	r: <b>1708</b>	B70			RcptNo:	1
Red Cor Rev	ceived By: mpleted By: viewed By:	Anne Thom Anne Thom	ne ne	8/19/201 8/19/201	7 11:00:00 A 7 11:10:23 A	M		a. a	me A.	~	
Ch	ain of Cus	tody	·								5 - 41
	an or cus	LOUY				Mar				Not Present	
1.	Custody sea	is intact on sa	imple bottles?			Yes				Not Present	
2.	is Chain or C	Justody comp				Tes				Not Present	
3.	How was the	e sample deliv	ered?			Cour	ier			*	
Lo	<u>g In</u>										
4.	Was an atte	empt made to	cool the samp	les?		Yes	V		No 🗌	NA 🗆	
5.	Were all sar	mples received	at a tempera	ture of >0° C	to 6.0°C	Yes			No 🗆	NA 🗌	
6.	Sample(s) in	n proper conta	liner(s)?			Yes	V		No 🗌		
7.	Sufficient sa	mple volume	for indicated te	est(s)?		Yes	$\checkmark$		No 🗌		
8.	Are samples	(except VOA	and ONG) pro	periy preserv	ed?	Yes	$\checkmark$		No 🗌		
9.	Was preserv	vative added to	bottles?			Yes			No 🗹	NA 🗆	
10.	VOA vials ha	ave zero head	space?			Yes			No 🗌	No VOA Vials 🗹	
11.	Were any sa	ample contain	ers received b	roken?		Yes			No 🗹		
12.	Does paperv	work match bo	ttle labels? ain of custody	)		Yes			No 🗆	# of preserved bottles checked for pH:	or >12 unless noted)
13	Are matrices	correctly ider	tified on Chai	, n of Custody?		Yes	$\checkmark$		No 🗌	Adjusted?	
14.	Is it clear wh	at analyses w	ere requested	?		Yes			No 🗆		
15.	Were all hold (If no, notify	ding times able customer for a	e to be met? authorization.)			Yes			No 🗌	Checked by:	
Spe	cial Hand	lling (if app	licable)								
16.	Was client n	otified of all di	screpancies w	ith this order?		Yes			No 🗌	NA 🗹	
	Persor	Notified:			Date		1.47.40.67.65.698C.36.06	000/00/02/00/00/00		~	
	By Wh	om:	RACKANKUK MALANDA ANDA		Via:	eMa	ail 🗌	Phone	E Fax	In Person	
	Regard	ding:		KANANGANANANI MINI MINI MINI MINI MINI MINI MI	Anthe Contraction of the Artic States				0002030303040636300630	ander ander an ander an ander an anderen anderen anderen anderen anderen anderen anderen anderen anderen andere	
	Client	Instructions:		acacementação, por concept de la carde da	A LEADER CLUTCH APO TO DATE THE INFORMATION	ALTERNA STATUTE			COCOCOCOLOMONIA CO	na n	
17.	Additional re	emarks:									_
18.	Cooler Info	rmation									
	Cooler No	1.8	Good	Seal Intact Yes	Seal No	Seal Da	ate	Sign	ed By	-	
_	L				L						
	Page 1 of	f 1									Page 9 of 10

Client: Mailing	Chain-of-Custody Record Client: Ashley Ager LT Environmental, Inc Mailing Address: 848 E 2nd Ave Durango, CO 81301 Phone #: (970) 385-1096 amail of Earth Address @ LTE				Turn-Around Time: AFlermoon Project Name: Sarah M Hedges # 001 Project #: 017817002				HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request												
email or QA/QC F Stan Accredi D NEL	r Fax#: Package: dard tation AP (Type)	<u>A</u> <u>Age</u> □ Othe	□ Level 4 (Full Validation)	Project Mana Ash Sampler: M On Ice Sample Tem	ger: 1ey Au 11chael Derature:	Jer A Wicker	MIBE + 1MBS (8021)	MTBE + TPH (Gas only)	15B (GRO / DRO (1990)	ethod 418.1) M(R)	ethod 504.1)	8310 or 8270 SIMS)	3 Metals	(F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	esticides / 8082 PCB's	VOA)	emi-VOA)				oles (Y or N)
Date	Time 1521 1515 1518 1524	Matrix Soil	Sample Request ID CS-West- CS-Worth CS-East- CS-South	Container Type and # Meotificit	Preservative Type	HEAL No. 1708/870 -202 -202 -203		BTEX +	TPH 801	TPH (Me	EDB (Me	PAH's (8	RCRA 8	Anions (	8081 Pe	8260B (V	8270 (Se				Air Bubb
Pag																					
Date: 0 8~1814 Date: 8 8 8	Time: 1554 Time: 2050	Relinquishe	ad by: A NAT	Received by:	hast	Date Time 8/18/17 1551 Date Time 2.08/19/17 1/00 This searce as police of the	Rei	nark	S:	Ple	ase nse	d	2 ;	M TPI BT	Wi H- ES	ck Gł	eva Ro/	DR	JE D/A	nu. NRI	, corr 17

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 19, 2017

Ashley Ager LT Environmental 10 42nd St E #1301 Williston, ND 58801 TEL: (701) 609-5436 FAX

RE: Sarah M Hedges 001

OrderNo.: 1709034

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/1/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1709034 Date Reported: 9/19/2017

## Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 LT Environmental
 Client Sample ID:
 BH-4 @ 25'

 Project:
 Sarah M Hedges 001
 Collection Date:
 8/31/2017 4:10:00 PM

 Lab ID:
 1709034-001
 Matrix:
 SOIL
 Received Date:
 9/1/2017 8:00:00 AM

 Analyses
 Result
 PQL
 Qual
 Units
 DF Date Analyzed
 Batch

	the second s	NAMES OF TAXABLE PARTY.	the second day is not second and the second s		NAME AND ADDRESS OF TAXABLE PARTY.	and the second design of the s
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	том
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	9/6/2017 11:14:46 AM	33701
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	9/6/2017 11:14:46 AM	33701
Surr: DNOP	86.3	70-130	%Rec	1	9/6/2017 11:14:46 AM	33701
EPA METHOD 8015D: GASOLINE RANGE	Ξ				Analyst	NSB
Gasoline Range Organics (GRO)	10	4.8	mg/Kg	1	9/5/2017 9:16:20 PM	33682
Surr: BFB	98.9	54-150	%Rec	1	9/5/2017 9:16:20 PM	33682
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	9/5/2017 9:16:20 PM	33682
Toluene	ND	0.048	mg/Kg	1	9/5/2017 9:16:20 PM	33682
Ethylbenzene	ND	0.048	mg/Kg	1	9/5/2017 9:16:20 PM	33682
Xylenes, Total	0.22	0.097	mg/Kg	1	9/5/2017 9:16:20 PM	33682
Surr: 4-Bromofluorobenzene	120	66.6-132	%Rec	1	9/5/2017 9:16:20 PM	33682

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 11
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report** Lab Order 1709034 Date Reported: 9/19/2017

9/5/2017 9:40:10 PM

1

33682

#### Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT:	LT Environmental			Client Sampl	e ID: BH	I-4 @ 30'		
<b>Project:</b>	Sarah M Hedges 001			Collection I	Date: 8/3	31/2017 4:15:00 PM		
Lab ID:	1709034-002	Matrix: S	Received I	Received Date: 9/1/2017 8:00:00 AM				
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA MET	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	том	
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	9/6/2017 11:42:39 AM	33701	
Motor Oi	I Range Organics (MRO)	ND	49	mg/Kg	1	9/6/2017 11:42:39 AM	33701	
Surr: [	DNOP	82.3	70-130	%Rec	1	9/6/2017 11:42:39 AM	33701	
EPA MET	HOD 8015D: GASOLINE R	ANGE				Analyst	NSB	
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	9/5/2017 9:40:10 PM	33682	
Surr: E	BFB	78.3	54-150	%Rec	1	9/5/2017 9:40:10 PM	33682	
EPA MET	THOD 8021B: VOLATILES					Analyst	NSB	
Benzene	1	ND	0.023	mg/Kg	1	9/5/2017 9:40:10 PM	33682	
Toluene		ND	0.047	mg/Kg	1	9/5/2017 9:40:10 PM	33682	
Ethylben	zene	ND	0.047	mg/Kg	1	9/5/2017 9:40:10 PM	33682	
Xylenes,	Total	ND	0.093	mg/Kg	1	9/5/2017 9:40:10 PM	33682	

66.6-132

%Rec

118

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

\* Qualifiers: Value exceeds Maximum Contaminant Level.

- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

# Hall Environmental Analysis Laboratory, Inc.

Lab Order 1709034

Date Reported: 9/19/2017

CLIENT: LT Environmental			Client Sampl	e ID: BI	H-2 @ 25'				
Project: Sarah M Hedges 001			Collection	Date: 8/3	31/2017 4:30:00 PM				
Lab ID: 1709034-005	Matrix:	Matrix: SOIL			Received Date: 9/1/2017 8:00:00 AM				
Analyses	Result	PQL Qua	l Units	DF	Date Analyzed	Batch			
EPA METHOD 8015M/D: DIESEL	RANGE ORGANICS	8			Analyst	TOM			
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	9/6/2017 12:10:41 PM	33701			
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	9/6/2017 12:10:41 PM	33701			
Surr: DNOP	81.9	70-130	%Rec	1	9/6/2017 12:10:41 PM	33701			
EPA METHOD 8015D: GASOLINE	RANGE				Analyst	NSB			
Gasoline Range Organics (GRO)	12	5.0	mg/Kg	1	9/5/2017 10:04:01 PM	33682			
Surr: BFB	147	54-150	%Rec	1	9/5/2017 10:04:01 PM	33682			
EPA METHOD 8021B: VOLATILE	s				Analyst	NSB			
Benzene	ND	0.025	mg/Kg	1	9/5/2017 10:04:01 PM	33682			
Toluene	ND	0.050	mg/Kg	1	9/5/2017 10:04:01 PM	33682			
Ethylbenzene	ND	0.050	mg/Kg	1	9/5/2017 10:04:01 PM	33682			
Xylenes, Total	ND	0.10	mg/Kg	1	9/5/2017 10:04:01 PM	33682			
Surr: 4-Bromofluorobenzene	125	66.6-132	%Rec	1	9/5/2017 10:04:01 PM	33682			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 11
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

#### Hall Environmental Analysis Laboratory, Inc.

Lab Order 1709034

Date Reported: 9/19/2017

CLIENT:	LT Environmental		Client Sample ID: BH-2 @ 30' Collection Date: 8/31/2017 4:35:00 PM								
Lab ID:	1709034-006	Matrix: S	SOIL	Received 1	Date: 9/1	/2017 8:00:00 AM					
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch				
EPA MET	HOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	TOM				
Diesel R	ange Organics (DRO)	ND	9.5	mg/Kg	1	9/6/2017 12:38:40 PM	33701				
Motor Oi	Range Organics (MRO)	ND	47	mg/Kg	1	9/6/2017 12:38:40 PM	33701				
Surr: [	ONOP	76.5	70-130	%Rec	1	9/6/2017 12:38:40 PM	33701				
EPA MET	HOD 8015D: GASOLINE R	ANGE				Analyst	NSB				
Gasoline	Range Organics (GRO)	7.8	4.7	mg/Kg	1	9/5/2017 10:27:53 PM	33682				
Surr: E	BFB	112	54-150	%Rec	1	9/5/2017 10:27:53 PM	33682				
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB				
Benzene		ND	0.024	mg/Kg	1	9/5/2017 10:27:53 PM	33682				
Toluene		ND	0.047	mg/Kg	1	9/5/2017 10:27:53 PM	33682				
Ethylben	zene	ND	0.047	mg/Kg	1	9/5/2017 10:27:53 PM	33682				
Xylenes,	Total	0.12	0.094	mg/Kg	1	9/5/2017 10:27:53 PM	33682				
Surr: 4	1-Bromofluorobenzene	124	66.6-132	%Rec	1	9/5/2017 10:27:53 PM	33682				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\*

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
  - Analyte detected below quantitation limits Page 4 of 11 J
  - Р Sample pH Not In Range
  - RL Reporting Detection Limit
  - W Sample container temperature is out of limit as specified

#### Hall Environmental Analysis Laboratory, Inc.

Lab Order 1709034 Date Reported: 9/19/2017

<b>CLIENT:</b> LT Environmental			Client Sampl	e ID: BH	I-6 @ 30'			
Project: Sarah M Hedges 001			<b>Collection</b> I	Date: 8/3	1/2017 4:40:00 PM			
Lab ID: 1709034-007	Matrix:	Matrix: SOIL Received Date: 9/1/2017 8:00:00 AM						
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	5			Analyst	том		
Diesel Range Organics (DRO)	13	9.8	mg/Kg	1	9/6/2017 1:06:47 PM	33701		
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/6/2017 1:06:47 PM	33701		
Surr: DNOP	76.9	70-130	%Rec	1	9/6/2017 1:06:47 PM	33701		
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB		
Gasoline Range Organics (GRO)	16	5.0	mg/Kg	1	9/13/2017 10:25:33 AM	33823		
Surr: BFB	164	54-150	S %Rec	1	9/13/2017 10:25:33 AM	33823		
EPA METHOD 8021B: VOLATILES					Analyst	NSB		
Benzene	ND	0.025	mg/Kg	1	9/13/2017 10:25:33 AM	33823		
Toluene	ND	0.050	mg/Kg	1	9/13/2017 10:25:33 AM	33823		
Ethylbenzene	ND	0.050	mg/Kg	1	9/13/2017 10:25:33 AM	33823		
Xylenes, Total	ND	0.099	mg/Kg	1	9/13/2017 10:25:33 AM	33823		
Surr: 4-Bromofluorobenzene	111	66.6-132	%Rec	1	9/13/2017 10:25:33 AM	33823		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** LT Environmental

Lab Order 1709034 Date Reported: 9/19/2017

Client Sample ID: BH-6 @ 35'

<b>Project:</b>	Sarah M Hedges 001	Collection Date: 8/31/2017 4:45:00 PM								
Lab ID:	1709034-008	Matrix: S	SOIL	Received I	Received Date: 9/1/2017 8:00:00 AM					
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL RAM	NGE ORGANICS				Analyst	TOM			
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	9/6/2017 1:35:01 PM	33701			
Motor Oil	Range Organics (MRO)	ND	51	mg/Kg	1	9/6/2017 1:35:01 PM	33701			
Surr: D	DNOP	82.0	70-130	%Rec	1	9/6/2017 1:35:01 PM	33701			
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst	NSB			
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	9/13/2017 10:49:01 AM	33823			
Surr: E	BFB	99.5	54-150	%Rec	1	9/13/2017 10:49:01 AM	33823			
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB			
Benzene		ND	0.024	mg/Kg	1	9/13/2017 10:49:01 AM	33823			
Toluene		ND	0.047	mg/Kg	1	9/13/2017 10:49:01 AM	33823			
Ethylbenz	zene	ND	0.047	mg/Kg	1	9/13/2017 10:49:01 AM	33823			
Xylenes,	Total	ND	0.095	mg/Kg	1	9/13/2017 10:49:01 AM	33823			
Surr: 4	-Bromofluorobenzene	107	66.6-132	%Rec	1	9/13/2017 10:49:01 AM	33823			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 11
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC	SUMMARY REPORT	
Hall	Environmental Analysis Laboratory, Inc.	

WO#: 1709034

19-Sep-17

Client:	LI Enviro	onmental	)1								
Project:	Saran M	neuges of	/1 								
Sample ID M	IB-33701	Samp	Гуре: М	BLK	Tes	tCode: E	PA Method	8015M/D: D	iesel Rang	e Organics	
Client ID: P	BS	Batc	h ID: 33	3701	F	RunNo: 4	5428				
Prep Date:	9/5/2017	Analysis D	Date: 9	/6/2017	S	SeqNo: 1	439205	Units: mg/	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	ganics (DRO)	ND	10								
Motor Oil Range	Organics (MRO)	ND	50								
Surr: DNOP		8.6		10.00	ь.	86.4	70	130			
Sample ID L	CS-33701	SampT	Гуре: LC	cs	Tes	tCode: E	PA Method	8015M/D: D	iesel Rang	e Organics	
Client ID: LO	CSS	Batc	h ID: 33	701	F	RunNo: 4	5428				
Prep Date:	9/5/2017	Analysis D	Date: 9/	/6/2017	S	SeqNo: 1	439474	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	anics (DRO)	44	10	50.00	0	88.6	73.2	114			
Surr: DNOP		4.5		5.000		90.3	70	130			
Sample ID 17	709005-001AMS	SampT	уре: М	S	Tes	tCode: E	PA Method	8015M/D: D	iesel Rang	e Organics	
Client ID: B	atchQC	Batcl	h ID: 33	701	F	RunNo: 4	5428				
Prep Date: 9	9/5/2017	Analysis D	)ate: 9/	/6/2017	5	SeqNo: 1	440007	Units: <b>mg/l</b>	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	anics (DRO)	40	9.2	46.00	0	86.7	55.8	122			
Surr: DNOP		3.7		4.600		80.9	70	130			
Sample ID 17	709005-001AMSE	) SampT	ype: MS	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: Ba	atchQC	Batch	n ID: 33	701	F	RunNo: 4	5428				
Prep Date: 9	9/5/2017	Analysis D	)ate: 9/	6/2017	S	SeqNo: 1	440008	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	anics (DRO)	44	9.7	48.59	0	90.8	55.8	122	10.1	20	
Surr: DNOP		4.1		4.859		83.9	70	130	0	0	

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 7 of 11

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1709034** *19-Sep-17* 

Client: Project:	LT Envir Sarah M	onmental Hedges 00	1								
Sample ID	MB-33682	SampT	ype: M	BLK	Te:	stCode: E	EPA Method	8015D: Gas	oline Rang	je	
Client ID:	PBS	Batch	ID: 33	682	F	RunNo: 4	45408				
Prep Date:	9/1/2017	Analysis Da	ate: 9	/5/2017	\$	SeqNo: 1	1439055	Units: mg/ł	Кg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	je Organics (GRO)	ND 820	5.0	1000		82.4	54	150			
Sample ID	LCS-33682	SampTy	ype: LC	s	Tes	stCode: E	PA Method	8015D: Gase	oline Rang	e	
Client ID:	LCSS	Batch	ID: 33	682	F	RunNo: 4	45408				
Prep Date:	9/1/2017	Analysis Da	ate: 9/	/5/2017	5	SeqNo: 1	1439056	Units: <b>mg/k</b>	۶g		
Anaiyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	ge Organics (GRO)	24	5.0	25.00	0	96.3	76.4	125			
Surr: BFB		910		1000		90.9	54	150		<u> </u>	
Sample ID	1709047-002AMS	SampTy	ype: M:	<u> </u>	Tes	stCode: E	PA Method	8015D: Gase	oline Rang	e	
Client ID:	BatchQC	Batch	ID: 33	682	F	RunNo: 4	15408				
Prep Date:	9/1/2017	Analysis Da	ate: 9/	/5/2017	٤	SeqNo: 1	1439059	Units: <b>mg/ł</b>	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	Je Organics (GRO)	18	4.7	23.72	0	75.7	77.8	128			S
Surr: BFB		840		948.8		88.8	54	150			
Sample ID	1709047-002AMSI	D SampT	ype: M	SD	Tes	stCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	BatchQC	Batch	ID: 33	682	F	RunNo: 4	15408				
Prep Date:	9/1/2017	Analysis Da	ate: 9/	/5/2017	٤	SeqNo: 1	1439060	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	15	4.8	24.02	0	61.0	77.8	128	20.3	20	RS
Surr: BFB		850		960.6		88.3	54	150	0	0	·
Sample ID	MB-33823	SampTy	/pe: Ml	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	PBS	Batch	ID: 33	823	F	RunNo: 4	<b>15592</b>				
Prep Date:	9/12/2017	Analysis Da	ate: 9/	/13/2017	٤	SeqNo: 1	1446394	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	ND	5.0								
Surr: BFB		1000		1000		101	54	150			
Sample ID	LCS-33823	 SampTy	 /pe: LC	;s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch	ID: 33	823	F	RunNo: 4	15592				
Prep Date:	9/12/2017	Analysis Da	ate: 9/	/13/2017	٤	SeqNo: 1	446395	Units: mg/r	¢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Detection Limit

Р

W Sample container temperature is out of limit as specified

Page 8 of 11

WO#:	1709034

19-Sep-17

Client:	LT Envir	onmental									
Project:	Sarah M	Hedges 00	1								
Sample ID	1 06 22822	SampT		· c	Tos	tCodo: El	PA Mothod	901ED: Cas	olino Pana		
Sample ID	LC3-33023	Sampi	ype. LC	.5	165	Coue. E	PA Wethou	6015D. Gas	onne Rang	e	
Client ID:	LCSS	Batch	ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	ate: 9/	13/2017	S	SeqNo: 1	446395	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	29	5.0	25.00	0	116	76.4	125			
Surr: BFB		1100		1000		110	54	150			
Sample ID	1709034-008AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
Client ID:	BH-6 @ 35'	Batch	ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	ate: 9/	13/2017	5	SeqNo: 1	446396	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	35	4.8	24.02	0	145	77.8	128			S
Surr: BFB		1100		960.6		116	54	150			
Sample ID	1709034-008AMSI	D SampT	ype: MS	SD.	Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
Client ID:	BH-6 @ 35'	Batch	ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	ate: 9/	13/2017	5	SeqNo: 1	446397	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	34	4.8	23.88	0	141	77.8	128	3.57	20	S
Surr: BFB		1100		955.1		115	54	150	0	0	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified
- Page 9 of 11

UMMARY REPORT
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Hall Environmental Analysis Laboratory, Inc.

Client:	LT Envir	onmental									
<b>Project:</b>	Sarah M	Hedges 00	01								
Sample ID	MB-33682	Samp	Type: ME	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 33	682	RunNo: 45408						
Prep Date:	9/1/2017	Analysis [	Date: 9/	5/2017	S	SeqNo: 1	439078	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	1.3		1.000		128	66.6	132			
Sample ID	LCS-33682	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 33	682	F	RunNo: 4	5408				
Prep Date:	9/1/2017	Analysis [	Date: 9/	5/2017	Ś	SeqNo: 1	439079	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.025	1.000	0	113	80	120			
Toluene		1.1	0.050	1.000	0	113	80	120			
Ethylbenzene		1.1	0.050	1.000	0	112	80	120			
Xylenes, Total		3.4	0.10	3.000	0	115	80	120			
Surr: 4-Brom	ofluorobenzene	1.3		1.000		128	66.6	132			
Sample ID	1709047-001AMS	Samp	Type: MS	6	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	BatchQC	Batc	h ID: 33	682	F	RunNo: 4	5408				
Prep Date:	9/1/2017	Analysis [	Date: 9/	5/2017	5	SeqNo: 1	439081	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.89	0.024	0.9488	0	93.5	80.9	132			
Toluene		0.94	0.047	0.9488	0.009605	97.6	79.8	136			
Ethylbenzene		0.95	0.047	0.9488	0.01008	98.5	79.4	140			
Xylenes, Total		2.8	0.095	2.846	0.01582	99.2	78.5	142			
Surr: 4-Brom	ofluorobenzene	1.2		0.9488		123	66.6	132			
Sample ID	1709047-001AMS	D Samp	Type: MS	D	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	BatchQC	Batc	h ID: 33	682	F	RunNo: 4	5408				
Prep Date:	9/1/2017	Analysis [	Date: 9/	5/2017	S	SeqNo: 1	439082	Units: mg/k	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.025	0.9833	0	94.1	80.9	132	4.26	20	
Toluene		0.96	0.049	0.9833	0.009605	97.0	79.8	136	2.88	20	
Ethylbenzene		0.97	0.049	0.9833	0.01008	97.3	79.4	140	2.31	20	
Xylenes, Total		2.9	0.098	2.950	0.01582	98.7	78.5	142	3.06	20	
Surr: 4-Brom	ofluorobenzene	1.2		0.9833		120	66.6	132	0	0	

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

Sample pH Not In Range

- J Analyte detected below quantitation limits
- Page 10 of 11

RL Reporting Detection Limit

Р

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

**Client:** LT Environmental **Project:** Sarah M Hedges 001

Sample ID	MB-33823	Samp	Гуре: М	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	Date: 9	/13/2017	S	SeqNo: 1	446401	Units: mg/k	٢g		
Analyte		Result	POL	SPK value	SPK Ref Val	%REC	I owl imit	Highl imit	%RPD	RPDI imit	Qual
Renzene		ND	0.025	or re raido	or render that	/01/12/0	Lonenni		,		
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xvlenes Total		ND	0.10								
Surr: 4-Brorr	ofluorobenzene	1.1	0.10	1.000		109	66.6	132			
Sample ID	LCS-33823	Samp1	Type: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	Date: 9	/13/2017	5	SeqNo: 1	446402	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.025	1.000	0	114	80	120			
Toluene		1.1	0.050	1.000	0	110	80	120			
Ethylbenzene		1.1	0.050	1.000	0	114	80	120			
Xylenes, Total		3.5	0.10	3.000	0	115	80	120			
Surr: 4-Brom	ofluorobenzene	1.1		1.000		111	66.6	132			
Sample ID	1709034-007AMS	SampT	Гуре: М	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	BH-6 @ 30'	Batch	h ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	Date: 9	/13/2017	S	SeqNo: 1	446403	Units: mg/k	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.2	0.024	0.9407	0	129	80.9	132			
Toluene		1.2	0.047	0.9407	0	130	79.8	136			
Ethylbenzene		1.3	0.047	0.9407	0	136	79.4	140			
Xylenes, Total		3.9	0.094	2.822	0.05223	136	78.5	142			
Surr: 4-Brom	ofluorobenzene	1.1		0.9407		113	66.6	132			
Sample ID	1709034-007AMSE	) SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	BH-6 @ 30'	Batch	h ID: 33	823	F	RunNo: 4	5592				
Prep Date:	9/12/2017	Analysis D	Date: 9/	13/2017	S	SeqNo: 1	446404	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.3	0.024	0.9662	0	131	80.9	132	4.36	20	

#### Qualifiers:

Toluene

Ethylbenzene

Xylenes, Total

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

Н Holding times for preparation or analysis exceeded

1.3

1.3

4.0

1.1

0.048

0.048

0.097

0.9662

0.9662

0.9662

2.899

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range

0

0

0.05223

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

Page 11 of 11

20

20

20

0

- RL Reporting Detection Limit

130

138

137

112

W Sample container temperature is out of limit as specified

79.8

79.4

78.5

66.6

136

140

142

132

2.89

3.90

2.98

0

WO#: 1709034 19-Sep-17

	ALL IVIRONMENTAL IALYSIS BORATORY	Hail Envir TEL: 505 Website	onmental Analysis Labo 4901 Hawki Albuqverque, NM 345-3975 FAX: 505-345 : www.hallenvironmenta	ratory ns NE 87109 Sam -4107 sl.com	Sample Log-In Check List			
Client Nan	e: LTE ENVIRONM	ENTAL Work Order	Number: 1709034	-	RcptNo: 1			
Received	By: Erin Melendrez	9/1/2017 8:00	MA 00:	KAL	5			
Completed Reviewed I	By: Ashley Gallego By: ML	s 9/1/2017 11:2: 9/1/17	5:13 AM	A				
Chain of	Custody							
1. Custod	y seals intact on sample	e bottles?	Yes 🗌	No 🗌	Not Present			
2. Is Chai	n of Custody complete?		Yes 🗹	No 🗆	Not Present			
3. How wa	s the sample delivered	?	Courier					
<u>Log In</u>								
4. Was a	attempt made to cool	the samples?	Yes 🗹	No 🗆	NA 🗆			
5. Were a	II samples received at a	temperature of >0° C to 6.0	)°C Yes 🗹	No 🗌	NA 🗌			
6. Sample	e(s) in proper container	s)?	Yes 🗹	No 🗌				
7. Sufficie	nt sample volume for in	dicated test(s)?	Yes 🗹	No 🗆				
8. Are sar	nples (except VOA and	ONG) properly preserved?	Yes 🖌	No 🗌				
9. Was pr	eservative added to bot	tles?	Yes 🗌	No 🗹	NA 🗆			
10.VOA vi	als have zero headspac	e?	Yes 🗌	No 🗌	No VOA Vials 🗹			
11. Were a	ny sample containers r	aceived broken?	Yes	No 🔽	# of preserved			
12. Does p (Note d	aperwork match bottle l screpancies on chain o	abels? f custody)	Yes 🔽	No 🗌	for pH:	12 unless noted)		
13. Are ma	rices correctly identified	I on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?			
14. Is it clea	ar what analyses were r	equested?	Yes 🗹	No 🗌				
15. Were a (If no, n	I holding times able to I otify customer for autho	pe met? prization.)	Yes 🗹	No 🗆	Checked by:			
Special H	andling (if applica	ble)						
16. Was cli	ent notified of all discrep	pancies with this order?	Yes 🗌	No 🗌	NA 🗹			
P B R C	erson Notified: / / / / / / / / / / / / / / / / / / /		Date   Via: eMail	Phone 🗌 Fax	In Person			
17. Additio 18. <u>Cooler</u> Cool	nal remarks: <u>Information</u> <u>er No   Temp °C   Co</u> 3.4 Goo	ondition Seal Intact Sea od Yes	I No Seal Date	Signed By				

С	hain	of-Cu	stody Record	Turn-Around	Time:				-				-			~					
Client:	Ashle	v haes	r	Standard	□ Rush													1E			-
	ITT.	1 100	and the	Project Name	Э:		www.hallenvironmental.com														
Mailing	Address	: 240	E and A.	Carol	M 110	Las Hani					ww	nai	lenv	ironi	meni	al.co	2011	400			
	N	U IO	(A EIZOL	Project #:	I MI ME	ages #001		490		awkii	IS IN	E -	AID	uqu	erqu	e, N	M 87	109			
Phone	H. 10-	10 20	5-1096		317917	000	12.00	Te	1, 50	5-34	0-39	A	h nalv	ax	Beg	345 uest	-410,				
email or	Fax#:	AAarro	@ LTENV. COM	Project Mana	ider:	006		X)	6					()							T
QA/QC F	Package:	ingor					021)	s on	MR					SO.	B's						
₫ Stan	dard		Level 4 (Full Validation)	Ashley Ager			s (8	(Ga:	102			MIS		PO	PC						
Accredi	Accreditation				Inchael A.	Wicker		Hd	DF	=	<del>,</del>	202		NO2	3082						5
O NEL	AP	□ Othe	er	On Ice:	Y Yes	□ No	H	+	SRO	418.	504.	r 82	S	103,1	3/ 86		(YO				or
	(Type)			Sample Tem	perature: 3.C		Ē	TBE	B (6	pou	poq	10	/leta	CI'N	icide	(YO	ni-V				N S
Data	Time	Matrix	Sample Request ID	Container	Preservative		₽+	≥ +	3015	Metl	Met	\$ (83	181	s (F	Pest	SVC	(Ser				aldd
Date	Tune	WIELITA	Sample Request ID	Type and #	Туре	ITADADAU	TEX	TEX	H	H	DB (	AH's	CR	nion	381	260E	570				L'B
03117	ilia	C.1	B11 4025-	14.7	1.1	-001		8		-	ш	۵.	R	<	8	80	80	$ \rightarrow $	+	+	A
0-21-17	1010	2011	DM-TCZJ	1,7-06	001	-001	r.		$\overline{\gamma}$	-	-		_				$\vdash$		+	+	+
	1017		BH-9870			-002				-	-			-						+	+
_	1020		BH-5@25 *			-003			-		-		-						-+-	+	+
_	1625		BH-5@30-*			-004	11			_	_									_	+
	1630		BH-2@25-			-005	1					_		i.i.							1
	1635		BH-2030-	·		-004															
	1640		BH-6230-			-007															
	1645		BH-6@35	-		-008															
	1650	10 C	BH-7@30*			-009											1				
$\checkmark$	1655	V	BH-7@35*	V		-010	V		5				-19			1					
			1		120 3																
		5	1/1			and the second								100				1	J		
Date:	Time:	Relinquish	ed by	Received by:	1.1	Date Time	Rer	narks	s: p	lea	se	CO	:1	MI	Wich	ker	CL	TE.	nvic	om	
8-71-17	1142	n le la	adday (	Received hu	, Dalte	0/31/17 1/12		110		~			3 54		0	1 -	re l	1		1	
8/2.1	i tra		+ 1. last	V1-11	1	0800		HC	1	>	a 1/	1	sau	npie	>1	1	E	10	9/1	1200	7
0121/17	131/17/1856 Mistru Walte				5	04/01/17	T	er	M	H	Ho	bld	B	H	51	- e	5H-	7	111		

If necessary samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

September 28, 2017

Ashley Ager LTE 848 East 2nd Avenue Durango, CO 81301 TEL: (970) 946-1093 FAX

RE: Sarah M Hedges 1

OrderNo.: 1709E84

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/27/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1709E84 Date Reported: 9/28/2017

CLIENT:	LTE			<b>Client Sample</b>	e ID: Floor	Sample				
<b>Project:</b>	Sarah M Hedges 1			Collection I	Date: 9/26/2	017 2:25:00 PM				
Lab ID:	1709E84-001	Matrix:	SOIL	Received I	Received Date: 9/27/2017 7:20:00 AM					
Analyses		Result	PQL Qua	al Units	DF	Date Analyzed				
EPA MET	THOD 8015M/D: DIESEL RA	NGE ORGANICS	6			Analyst: TOM				
Diesel R	ange Organics (DRO)	ND	10	mg/Kg	1	9/27/2017 9:23:37 AM				
Motor Oi	Range Organics (MRO)	ND	50	mg/Kg	1	9/27/2017 9:23:37 AM				
Surr: I	DNOP	97.8	70-130	%Rec	1	9/27/2017 9:23:37 AM				
EPA MET	THOD 8015D: GASOLINE RA	ANGE				Analyst: NSB				
Gasoline	Range Organics (GRO)	ND	4.0	mg/Kg	1	9/27/2017 11:07:35 AM				
Surr: I	BFB	94.7	54-150	%Rec	1	9/27/2017 11:07:35 AM				
EPA MET	THOD 8021B: VOLATILES					Analyst: NSB				
Benzene		ND	0.020	mg/Kg	1	9/27/2017 11:07:35 AM				
Toluene		ND	0.040	mg/Kg	1	9/27/2017 11:07:35 AM				
Ethylben	zene	ND	0.040	mg/Kg	1	9/27/2017 11:07:35 AM				
Xylenes,	Total	ND	0.081	mg/Kg	1	9/27/2017 11:07:35 AM				
Surr: 4	4-Bromofluorobenzene	102	66.6-132	%Rec	1	9/27/2017 11:07:35 AM				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 8
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	r age r or o
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit	t as specified

Sample container temperature is out of limit as specified W

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1709E84

Date Reported: 9/28/2017

<b>CLIENT:</b>	LTE			Client Samp	le ID: Grab S	Sample			
Project:	Sarah M Hedges 1			Collection	Date: 9/26/2	017 2:30:00 PM			
Lab ID:	1709E84-002	Matrix:	SOIL	Received	Date: 9/27/20	/2017 7:20:00 AM			
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed			
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS	6			Analyst: TOM			
Diesel Ra	ange Organics (DRO)	170	9.9	mg/Kg	1	9/27/2017 9:48:02 AM			
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	9/27/2017 9:48:02 AM			
Surr: E	DNOP	99.1	70-130	%Rec	1	9/27/2017 9:48:02 AM			
EPA MET	HOD 8015D: GASOLINE RANG	GE				Analyst: NSB			
Gasoline	Range Organics (GRO)	120	18	mg/Kg	5	9/27/2017 1:29:26 PM			
Surr: E	3FB	472	54-150	S %Rec	5	9/27/2017 1:29:26 PM			
EPA MET	HOD 8021B: VOLATILES					Analyst: NSB			
Benzene		ND	0.088	mg/Kg	5	9/27/2017 1:29:26 PM			
Toluene		ND	0.18	mg/Kg	5	9/27/2017 1:29:26 PM			
Ethylben	zene	0.40	0.18	mg/Kg	5	9/27/2017 1:29:26 PM			
Xylenes,	Total	1.4	0.35	mg/Kg	5	9/27/2017 1:29:26 PM			
Surr: 4	-Bromofluorobenzene	127	66.6-132	%Rec	5	9/27/2017 1:29:26 PM			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1709E84 Date Reported: 9/28/2017

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	LTE			Client Sample ID: S Wall Sample						
<b>Project:</b>	Sarah M Hedges 1			Collection D	ate: 9/26/2	017 2:35:00 PM				
Lab ID:	1709E84-003	Matrix:	SOIL	BOIL Received Date: 9/27/2017 7:20:00 AM						
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed				
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS	6			Analyst: TOM				
Diesel Ra	ange Organics (DRO)	ND	9.8	mg/Kg	1	9/27/2017 10:12:21 AM				
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	9/27/2017 10:12:21 AM				
Surr: E	DNOP	100	70-130	%Rec	1	9/27/2017 10:12:21 AM				
EPA MET	HOD 8015D: GASOLINE RAM	IGE				Analyst: NSB				
Gasoline	Range Organics (GRO)	ND	3.7	mg/Kg	1	9/27/2017 11:54:57 AM				
Surr: E	3FB	106	54-150	%Rec	1	9/27/2017 11:54:57 AM				
EPA MET	HOD 8021B: VOLATILES					Analyst: NSB				
Benzene		ND	0.018	mg/Kg	1	9/27/2017 11:54:57 AM				
Toluene		ND	0.037	mg/Kg	1	9/27/2017 11:54:57 AM				
Ethylben	zene	ND	0.037	mg/Kg	1	9/27/2017 11:54:57 AM				
Xylenes,	Total	ND	0.073	mg/Kg	1	9/27/2017 11:54:57 AM				
Surr: 4	-Bromofluorobenzene	114	66.6-132	%Rec	1	9/27/2017 11:54:57 AM				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\*

Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1709E84 Date Reported: 9/28/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT:	LTE	Client Sample ID: SW Wall Sample								
Project:	Sarah M Hedges 1			Collection D	ate: 9/26/2	017 2:40:00 PM				
Lab ID:	1709E84-004	Matrix:	SOIL	Received D	ate: 9/27/2	017 7:20:00 AM				
Analyses		Result	PQL Qua	al Units	DF	Date Analyzed				
EPA MET	THOD 8015M/D: DIESEL RAN	IGE ORGANICS	6			Analyst: TOM				
Diesel R	ange Organics (DRO)	ND	9.8	mg/Kg	1	9/27/2017 10:36:59 AM				
Motor Oi	Range Organics (MRO)	ND	49	mg/Kg	1	9/27/2017 10:36:59 AM				
Surr: [	DNOP	100	70-130	%Rec	1	9/27/2017 10:36:59 AM				
EPA MET	THOD 8015D: GASOLINE RA	NGE				Analyst: NSB				
Gasoline	Range Organics (GRO)	ND	4.1	mg/Kg	1	9/27/2017 12:18:39 PM				
Surr: E	BFB	111	54-150	%Rec	1	9/27/2017 12:18:39 PM				
EPA MET	THOD 8021B: VOLATILES					Analyst: NSB				
Benzene	8	ND	0.020	mg/Kg	1	9/27/2017 12:18:39 PM				
Toluene		ND	0.041	mg/Kg	1	9/27/2017 12:18:39 PM				
Ethylben	zene	ND	0.041	mg/Kg	1	9/27/2017 12:18:39 PM				
Xylenes,	Total	ND	0.081	mg/Kg	1	9/27/2017 12:18:39 PM				
Surr: 4	4-Bromofluorobenzene	120	66.6-132	%Rec	1	9/27/2017 12:18:39 PM				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\*

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Lab Order 1709E84 Date Reported: 9/28/2017

		Client Sample	ID: W Wa	ll Sample			
		Collection D	ate: 9/26/2	017 2:48:00 PM			
Matrix:	SOIL	Received D	Received Date: 9/27/2017 7:20:00 AM				
Result	PQL Qua	Units	DF	Date Analyzed			
E ORGANIC	S			Analyst: TOM			
ND	9.6	mg/Kg	1	9/27/2017 11:01:16 AM			
ND	48	mg/Kg	1	9/27/2017 11:01:16 AM			
102	70-130	%Rec	1	9/27/2017 11:01:16 AM			
GE				Analyst: NSB			
ND	4.2	mg/Kg	1	9/27/2017 12:42:15 PM			
107	54-150	%Rec	1	9/27/2017 12:42:15 PM			
				Analyst: NSB			
ND	0.021	mg/Kg	1	9/27/2017 12:42:15 PM			
ND	0.042	mg/Kg	1	9/27/2017 12:42:15 PM			
ND	0.042	mg/Kg	1	9/27/2017 12:42:15 PM			
ND	0.084	mg/Kg	1	9/27/2017 12:42:15 PM			
116	66.6-132	%Rec	1	9/27/2017 12:42:15 PM			
	Matrix: Result E ORGANIC ND ND 102 GE ND 107 SE ND ND ND ND ND ND ND	Matrix:         SOIL           Result         PQL         Qual           EORGANICS         0         0           EORGANICS         48         0           ND         9.6         48           102         70-130         0           GE         ND         4.2           ND         54-150         0           ND         0.021         ND           ND         0.042         ND           ND         0.042         ND           ND         0.084         116	Client Sample Collection D Result PQL Qual Units E ORGANICS IE ORGANICS ID2 70-130 %Rec GE ND 4.2 mg/Kg 102 70-130 %Rec GE ND 4.2 mg/Kg 107 54-150 %Rec ND 0.021 mg/Kg ND 0.042 mg/Kg ND 0.042 mg/Kg ND 0.042 mg/Kg ND 0.042 mg/Kg ND 0.042 mg/Kg ND 0.042 mg/Kg ND 0.084 mg/Kg	Client Sample ID: W Wa         Collection Date: 9/26/20         Matrix:       SOIL       Received Date: 9/27/20         Result       PQL       Qual       Units       DF         E ORGANICS       MD       9.6       mg/Kg       1         ND       9.6       mg/Kg       1         102       70-130       %Rec       1         GE         ND       4.2       mg/Kg       1         OP       4.2       mg/Kg       1         OP       4.2       mg/Kg       1         OP       0.021       mg/Kg       1         ND       0.021       mg/Kg       1         ND       0.042       mg/Kg       1         ND       0.042       mg/Kg       1         ND       0.084       mg/Kg			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated M
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out

- fethod Blank
- limits Page 5 of 8
- of limit as specified

WO#: **1709E84** 28-Sep-17

#### Client:

Project: Sarah M Hedges 1

LTE

Sample ID         LCS-34095         SampType:         LCS         TestCode:         EPA Method 8015M/D:         Diesel Ra									e Organics		
Client ID: LCSS	Batch	ID: 340	095	RunNo: 45918							
Prep Date: 9/27/2017	Analysis Da	ate: 9/	27/2017	S	SeqNo: 1	459257	Units: mg/k	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	45	10	50.00	0	89.3	73.2	114				
Surr: DNOP	4.6		5.000		92.2	70	130				
Sample ID MB-34095	Sample ID     MB-34095     SampType:     MBLK     TestCode:     EPA Method 8015M/D: Diesel Range Organics										
Client ID: PBS	Batch	ID: 340	095	RunNo: 45918							
Prep Date: 9/27/2017	Analysis Da	ate: 9/2	27/2017	S	eqNo: 1	459258	Units: mg/k	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	9.9		10.00		98.8	70	130				

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: **1709E84** 28-Sep-17

Client: Project:

LTE Sarah M Hedges 1

Sample ID	RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	PBS	Batch	n ID: G4	5929	F	RunNo: 4	5929				
Prep Date:		Analysis D	ate: 9/	27/2017	S	SeqNo: 1	460005	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		1100		1000		106	54	150			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch	n ID: G4	5929	F	RunNo: 4	5929				
Prep Date:		Analysis D	ate: 9/	27/2017	S	SeqNo: 14	460006	Units: mg/h	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	27	5.0	25.00	0	110	76.4	125			
Curr DED		1200		1000		121	54	150			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 7 of 8

QC	SUMMARY I	REPOR	Γ	
Hall	Environmental	Analysis	Laboratory,	Inc.

LTE

WO#: **1709E84** 28-Sep-17

Project:	Sarah M	Hedges 1									
Sample ID	RB	Samp	Туре: М	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: B4	5929	F	RunNo: 4	5929				
Prep Date:		Analysis [	Date: 9/	27/2017	5	SeqNo: 1	460023	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	1.1		1.000		112	66.6	132			
Sample ID	100NG BTEX LCS	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: <b>B4</b>	5929	F	RunNo: 4	5929				
Prep Date:		Analysis E	Date: 9/	27/2017	S	SeqNo: 1	460024	Units: mg/h	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.89	0.025	1.000	0	88.8	80	120			
Toluene		0.93	0.050	1.000	0	92.5	80	120			
Ethylbenzene		1.0	0.050	1.000	0	102	80	120			
Xylenes, Total		3.2	0.10	3.000	0	105	80	120			
Surr: 4-Brom	nofluorobenzene	1.2		1.000		116	66.6	132			
Sample ID	1709E84-001AMS	SampT	Гуре: М	6	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	Floor Sample	Batc	h ID: B4	5929	F	RunNo: 4	5929				
Prep Date:		Analysis D	Date: 9/	27/2017	S	eqNo: 1	460025	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8	0.83	0.020	0.8078	0	103	80.9	132			
Toluene		0.84	0.040	0.8078	0	104	79.8	136			
Ethylbenzene		0.91	0.040	0.8078	0	113	79.4	140			
Xylenes, Total		2.9	0.081	2.423	0.01585	118	78.5	142			
Surr: 4-Brom	nofluorobenzene	0.97		0.8078		120	66.6	132			
Sample ID	1709E84-001AMS	D SampT	Гуре: МS	SD	Test	Code: El	PA Method	8021B: Vola	tiles		
Client ID:	Floor Sample	Batcl	h ID: B4	5929	R	unNo: 4	5929				
Prep Date:		Analysis D	Date: 9/	27/2017	S	eqNo: 1	460026	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.84	0.020	0.8078	0	104	80.9	132	1.20	20	
Toluene		0.85	0.040	0.8078	0	105	79.8	136	0.965	20	
Ethylbenzene		0.93	0.040	0.8078	0	115	79.4	140	1.47	20	
Xylenes, Total		2.9	0.081	2.423	0.01585	117	78.5	142	0.193	20	
Surr: 4-Brom	ofluorobenzene	1.0		0.8078		125	66.6	132	0	0	

#### Qualifiers:

**Client:** 

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 8 of 8

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmenta Alb TEL: 505-345-397 Website: www.hu	l Analysis Laborato 4901 Hawkins I uquerque, NM 871 5 FAX: 505-345-41 allenvironmental.co	NE 09 <b>Sam</b> 07	ple Log-In Ch	eck List
Client Name: LTE	Work Order Number	: 1709E84		RcptNo:	1
Received By: Anne Thome Completed By: Anne Thome Reviewed By: Derror	9/27/2017 7:20:00 AM 9/27/2017 7:40:55 AM	27/17	Anne Il. Anne Il.		
Chain of Custody	0				
4 Custody apple intest on apple both	002	Yaa 🗍	No 🗌	Not Present	
2 Is Chain of Custody complete?	ICO 1	Vec V		Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the s	amples?	Yes 🗹	No 🗌		
5. Were all samples received at a tem	perature of >0° C to 6.0°C	Yes 🗹	No 🗌		
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient sample volume for indicate	ed test(s)?	Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG	) properly preserved?	Yes 🗹	No 🗌		
9. Was preservative added to bottles?		Yes	No 🗹	NA 🗆	
10.VOA vials have zero headspace?		Yes	No 🗆	No VOA Vials 🗹	
11. Were any sample containers receive	ed broken?	Yes	No 🗹		
12. Does paperwork match bottle labels (Note discrepancies on chain of cust	? tody)	Yes 🗹	No 🗆	# of preserved bottles checked for pH: (<2 or	>12 unless noted)
13. Are matrices correctly identified on C	Chain of Custody?	Yes 🖌	No 🗆	Adjusted?	
14. Is it clear what analyses were reques	sted?	Yes 🔽	No 🗌		
15. Were all holding times able to be me (If no, notify customer for authorizati	on.)	Yes 🗹	No 🗌	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancie	es with this order?	Yes	No 🗌	NA 🗹	
Person Notified:	Date	A A GEN & MAN AND A A A A A A A A A A A A A A A A A	an and a subsequences of		
By Whom:	Via:	eMail Ph	one 🗍 Fax	In Person	
Regarding:					
Client Instructions:			undersatister software all and an and a software all and a software all and a software all and a software all a		
17. Additional remarks:					
18. <u>Cooler Information</u> Cooler No Temp °C Condition	on Seal Intact Seal No	Seal Date	Signed By		
		i			
Page 1 of 1					

С	hain-	of-Cu	stody Record	Turn-Around	Time:	Same Day									TE	20	RI R				
Client:				Standard	Rush	ASAY		1944	E,				Y	ST	5 1		RO	RA	TC	P.L	v .
IT of	ninna	Men	tal	Project Name	*#:				1			v hal	lenv	iron	meni	tal c	om				
Mailing	Address	: 848	E 2nd Ave	#0	017817	5002		49	01 H	awki	ins N	JF -	Alb	Dan	erau	e N	M 87	109			
Div	ancio	CO 8	1301	Project#: //	ame:	1. all		Te	1.50	5-34	15-39	975	F	Fax	505-	345	-4107	7			
Phone	#:0 4	770-3	85-1096	Sarc	ih M H	edges#1						A	naly	ysis	Req	ues	t				
email o	r Fax#: (	rager	-G. Henvicom	Project Mana	ger:	0	(	uly)	(Q)					04)					$\top$		T
QA/QC	Package:	1		Ashle	y Ager		8021	IO SE	/ MF			S)		04,S(	CB's						
Stan	dard		Level 4 (Full Validation)				35(	Ű	R0			SIN		PC PC	2 P						
Accredi	AP	Othe	r	Sampler: 14	IRX Cro	OKS	IN	법	0/0	3.1)	4.1)	270		No	808						î
	(Type)			Sample Tem	perature:			+	GR	1418	d 50	or 8	als	NO	des /		VOA				Y or
				20012710	n 1999 an Albana Andrea Anna an Anna an Anna an Anna an Anna an Anna Anna Anna Anna Anna Anna Anna Anna Anna An		MITE	MTE	5B (	sthoo	etho	3310	Met	F,CI	sticio	VOA	-ime				les (
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	×	+ X	801	Ň)	(Me	s) (8	<b>RA 8</b>	) su	Pe	DB (	(Se				gqng
				meatthe	Type	1709 684	BTE	BTE	H	E	EDB	PAH	RCF	Anio	808	826(	827(				AirE
1/20	1425	Soil	GODY Sample	1402 jar	000/	100-	X		X												-
1	1430	1	grap Sample	0		-202	1														
	1435		Swall Sample			-203															
	1440		SWWall Sample			-204															
V	1448		W Wall Sample		$\checkmark$	215	Y		V												
							1		V												
																					T
										•											T
	-																				
Date:	Time:	Relinguish	ed by	Received by:		Date Time	Rer	nark	s:												
120	1610	M	Il State	1Mm	+ Wart	5 1/17 1/10/16															
Date:	hime:	- -	cu by.	Colored by.		1 09/27/17															
1/20/17	2011			r U	hh	hi 0720															

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

# **ATTACHMENT 2**

## SOIL BORING LOGS



			16				1.1123	Ľ	Comp LT Er 848 I Dura	oliance "Eng nvironment E. 2nd Ave ngo, Color	nineering ∝ Remedia tal, Inc. ado 81301	ntion
A	2/2		1	T	n Shi			BORIN	G LOG/MONIT	ORING W	ELL COMPLETI	ON DIAGRAM
	AN IN		L	7 11		140	110	Boring/Wel	l Number:		Project:	1
	No sta	All a	BH-1			State of	11	Date:	BH-1		Project Number:	ages #001
· do	The second			11 4	时间道		1	Logged Dru	8/30/2017		17817	7002
States.	h		· All	11	111章	Tale 1		Logged by.	Josh Adams		Josh A	dams
Elevation:	6103'		Detector:	Mi	niRae Lit	a		Drilling Me	thod: Hand Auger		Sampling Method: Hand	luger
Gravel Pac	k:			1011		0		Seal:			Grout:	iugoi
Casing Typ	NA e:							Diameter:	NA Length:		NA Hole Diameter:	Depth to Liquid:
Screep Tur	NA			Slot:				Diameter:	NA Length:	NA	4-inches	NA Depth to Water
Screen Typ	NA			N	A			Diameter?	VA	NA	14-feet	NA
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Li	thology/Ren	narks	Well Completion
					0	1			Light brown, 10	% fine		
	Dry	0.0	None	1	2 -	-						+
						-						T I
					4 -	-						+
					6	-			orange brown, a	lot of FeO S	taining	1
	М	0.0	None	2	8 -	-		SM				+
	141	0.0	TTORC	2	-	-						±
					10 _	-			Light Prown with	Caliaba 20	0/ fino	+
					12	-			Light Brown with	I Callelle 20	70 IIIIe	+
	м	0.0	None	3	14	-						Ŧ I
	141	0.0	NOILC	5	14	_						
					-	-				Refusal @ 1	14'	÷
					-	-						±
					-	-						T I
					-							+
					_							I
					-							+
					-	.						†
					-	-						+
												1
					-	·						+

			6				- With	Ľ	P	Compliance " E LT Environme 848 E. 2nd Av Durango, Cole	ngineering "Remedia ntal, Inc. e orado 81301	ation
R.H.	12	BH-2	1	Tt	15 110			BORIN	G LOG/MO	DNITORING	WELL COMPLETI	ON DIAGRAM
50	E.C.			- All		1.546 0	-	Boring/Wel	l Number:		Project:	
	A Se	San !	A ROLL	5///8		and a second		Data:	BH-2	2	Sarah M He	edges #001
是多少的	and the		t.	11 4	118	100		Date.	8/31/20	017	01781	7002
	Contra la	1		1		281	- 30	Logged By:			Drilled By:	
Elevation	2. Y.A.H.		Detector:	He was	MP	1010021	a la	Drilling Me	Michael A.	Wicker	Sampling Method:	mat
Die valien.	6103'			Mi	niRae Lite	e		21111111 111	Hollow-	Stem	Split-S	poon
Gravel Pac	k: NA							Seal:	NA		Grout: NA	
Casing Typ	De:							Diameter:	Lei	ngth:	Hole Diameter:	Depth to Liquid:
Screen Typ	NA be:			Slot:				Diameter:	NA Lei	NA ngth:	6.25-inches Total Depth:	NA Depth to Water:
	NA			N	A			1	NA	NA	30-feet	NA
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type		Lithology/R	emarks	Well Completion
					0				Silty Sand,	loose, lt. brown	n, 30% fmed.	
					2	-			grained sand	1		+
												† I
					4	_						I I
	Dry	0.7			6	-						+
					-	-						+
					8	_						I I
	Dm	0.2			10	-			Loose med	Dansa incres	ase in silt content	+
	Diy	0.5			10 -				- Loose-mee	i. Dense, meree	ise in sitt content	+
					12	-						Į I
					14	-						+
	Dry	0.0			14 -							+
					16	-						I I
					18	-						+
					10 -							†
	Dry	0.0			20	-			- Brown, cal	iche		+
					22	·						+
						1						† I
	D	001.0		BH-2	24	-						+
	Dry	981.3		1630	26	·			Silt w/ Sand	grav staining	soft-med stiff	+
				1050		1			Site in Gallo	, Bray Stanning	, sour mou, oun	† I
				BH-2	28	-						+
	Dry	372 5		@30'	30	·						+
	Diy	512.5		1033	50	1						



Detector

Elevation

Gravel Pack:

6103'



Compliance « Engineering « Remediation LT Environmental, Inc. 848 E. 2nd Ave Durango, Colorado 81301

#### BORING LOG/MONITORING WELL COMPLETION DIAGRAM Project: Boring/Well Number: BH-3 Sarah M Hedges #001 Date Project Number: 8/31/2017 17817002 Drilled By: Logged By: Josh Adams Geomat Sampling Method: Drilling Method: MiniRae Lite Hollow-Stem Split-Spoon Seal: Grout:

	NA							1	VA	NA	
Casing Typ	be:							Diameter:	Length:	Hole Diameter:	Depth to Liquid:
	NA							1	NA NA	6.25-inches	NA
Screen Typ	e:			Slot:				Diameter:	Length:	Total Depth:	Depth to Water:
	NA			N	A			1	NA NA	30-teet	NA
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology	y/Remarks	Well Completion
	Dry	0.0	None	1	0 2 4	0-5			<u>Light brown, 10% fine</u>		-
	М	0.0	None	2	6 _ 8 _ 10	5-10			orange brown, a le	ot of FeO Staining	+ + + + + + + + + + + + + + + + + + + +
	М	0.1	None	3	12 14 16	-			Light Brown with	Caliche 20% fine	+ + + +
	М	15.3	None	4	18	15- 20			dark brown	n, more silt	+
				_	20				dark brow	vn fat clav	
					22				band of black fi	ne grained shale	20.5' to 21'
									ound of older II	no granica siture	
	М	5.4	Grev		24	-			grey sand wi	th 25% fines	†
		TD			26 28 30	-			SA	ΛA	-    

Elevation:	6103'	RH-4	Detector:	Mi	niRae Li	te		BORIN Boring/Wel Date: Logged By: Josh A Drilling Me	Adams / Hoi	Compliance M LT Environme 848 E. 2nd Au Durango, Col G/MONITORING BH-4 - 8/31/2017 Michael A. Wicke llow-Stem	Engineering M Remedi ental, Inc. Ve lorado 81301 WELL COMPLETI Project: Project Number: 1781 Drilled By: r Geo Sampling Method: Split-5	ation ON DIAGRAM edges #001 7002 mat Spoon
Casing Typ	NA e:							Diameter:	NA JA	Length:	Hole Diameter:	Depth to Liquid:
Screen Typ	e: NA			Slot:	IA			Diameter:	NA	Length: NA	Total Depth: 30-feet	Depth to Water: NA
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.	Sample ) Run	Recovery	Soil/Rock Type		Lithology/H	Remarks	Well Completion
	Dry	0.0	No		0 2 4 6 8				<u>Light l</u> (20%)	brown sand with s	<u>ilt unconsolidated</u>	
	М		NO		10 12	-				Orange-brown	silty sand	-
					14	+				Brown sand W/	/ Silt (30%)	-
		5.4			16 18 20	-				Dark brown silt v	v/sand (40%)	-
		1337		BH-4 @ 25' 1610	22 24 26	+ + + +			V. ha	ard, silt w/sand (609 Gray-black	% silt) redish brown staining	
		38.3		BH-4 @ 30' 1615	28 30	+ +				wet-dry (shoe w	et, soil dry)	+





Compliance "Engineering "Remediation LT Environmental, Inc. 848 E. 2nd Ave Durango, Colorado 81301

# BORING LOG/MONITORING WELL COMPLETION DIAGRAM Boring/Well Number: BH-5 Date: Project Number: Project Number:

1	4000		ar -	P/ 4	日川道	10.00			8/31/2017	17817	002
-	19-16	1	- all	1		25. 1.	-	Logged By:		Drilled By:	
1. E.C.		10 1	and the	Merel and	A HIP ST	A Marcal	10		Michael A. Wicker	Geon	nat
Elevation:	61021		Detector:	M	Doo L it	2		Drilling Me	thod:	Sampling Method:	
Gravel Pac	0103			IVII	IIIKae LI	e	_	Seal:	Hollow-Stell	Grout:	50011
Glaver I ac	NA							Jocal.	NA	NA	
Casing Typ	e:							Diameter:	Length:	Hole Diameter:	Depth to Liquid:
	NA							1	NA NA	6.25-inches	NA
Screen Typ	e:			Slot:				Diameter:	Length:	Total Depth:	Depth to Water:
	NA			N	A			<u> </u>	NA NA	30-feet	NA
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
					0				Sand w/ Silt, light brown, 30	% sand Fine-med	
	Dry	0.4				41			grained		+
					2	+				-	+
					4	+					+
					4	H I				-	+
	Drv	03			6	tl					+
	Dij	0.5				H I				-	+
					8	ti i					†
						11					11
					10	I I					TI I
						1					1
					12	4				Ļ	4
	Desi	0.2			14	-			Silty Sand, 75% silt		41 1
	Dry	0.3			14	Η Ι				-	+1
					16	+					+
					10	H I				-	Η Ι
					18	tl					†
						fi					Ħ
	Dry	2.4	Constraint of the		20				- gray, redish brown, caliche		ti i
						41					
			San State		22	ЦІ					1
				BH-5		41					41
	D	157.0		@ 25'	24	Η Ι				-	4
	Dry	457.3		1620	26	-			- gray staining		+
					20	Η Ι				-	Η Ι
<u> </u>				BH-5	28	+					+
				@ 30'	20	H I				-	Η Ι
	Dry	47.3		1625	30	t			- gray, light brown		†
L I	- /								0 ,, -0		

S.A.		BH-6	C		1/s		· North	BORIN	Compliance En LT Environmen 848 E. 2nd Ave Durango, Colo	ngineering "Remedia ntal, Inc. prado 81301 WELL COMPLETIO	ntion ON DIAGRAM
	F.C.						No. of Concession, Name	Boring/Wel	Number: BH-6	Project: Sarah M He	dges #001
	18		the second	1/4		(14)	1.3	Date:	8/31/2017	Project Number: 17817	7002
300	Ar-		-1	1.			-	Logged By:	Michael A. Wicker	Drilled By: Geor	nat
Elevation:	6103'		Detector:	Mi	niRae Li	ite		Drilling Me	thod: Hollow-Stem	Sampling Method: Split-S	poon
Gravel Pac	k: NA		1					Seal:	JA	Grout: NA	
Casing Typ	De: NA							Diameter:	Length: JA NA	Hole Diameter: 6.25-inches	Depth to Liquid: NA
Screen Typ	De: NA			Slot:	A			Diameter:	Length: JA NA	Total Depth:	Depth to Water: NA
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.	.) Sample Run	Recovery	Soil/Rock Type	Lithology/Re	emarks	Well Completion
	Dry Dry Dry	0.3 1.1 0.7			0 2 4 6 8 10 12 14 16				<u>Sand w/ Silt</u> , 35% Fine-mea Light brown	dium grained sand,	
	Dry	0.9		BH-6 @ 30'	20 22 24 26 28				- increase in silt content, gra - gray staining, slight odor	ıy-reddish	

									Boring/Well #	BH-6	
		Complia	nce "En	qineerii	ng "Rem	ediation			Project:	Sarah M Hedges #00	1
	2	LT Envi	ronmer	ntal, Inc					Project #	17817002	
				,					Date	8/31/2017	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
					30					_	
	Dry	70.7		BH-6 @ 35' 1645	32 34	+				-	-
					36					TD @ 35'	
					38	<u>t</u>					-
					40					_	_
					42					-	-
					44					-	-
					46					-	-
					48					-	-
					50						-
					52					-	-
					54						-
					56						-
					58	-					-
					60	-					
					62	-				-	-
					64	-				-	
					66	-				-	-
					68 -	-				-	-
					70	-				-	-
					72	-				-	-
					12	-				-	-
		_			74						

011 7	R		ANTRAS.	Ľ	Compliance ∝ En LT Environmer 848 E. 2nd Ave Durango, Colo	ngineering "Remedia ntal, Inc. ? rado 81301	ntion
		- Alter	1	BORIN	G LOG/MONITORING V	VELL COMPLETI	ON DIAGRAM
				Boring/Well	Number: BH-7	Project: Sarah M He	dges #001
as the a contract of	No Il Mall		1	Date:	8/21/2017	Project Number:	7002
- 6		t ist.	-	Logged By:	8/31/2017	Drilled By:	/002
Elevation:	Detector:		<u>, 1</u>	Drilling Met	Michael A. Wicker	Geor	mat
6103'	MiniRae	Lite			Hollow-Stem	Split-S	poon
Gravel Pack: NA				Seal:	ΝA	Grout: NA	
Casing Type: NA				Diameter:	Length: JA NA	Hole Diameter: 6 25-inches	Depth to Liquid: NA
Screen Type:	Slot:			Diameter:	Length:	Total Depth:	Depth to Water:
NA C	NA			1	NA NA	35-teet	NA
Penetratior Resistance Moisture Content Vapor (ppm	du the second se	th Sample (s.) Run	Recovery	Soil/Rock Type	Lithology/Re	emarks	Well Completion
Dry 0.6 Dry 1.7 Dry 0.4 Dry 0.4 Dry 0.8 Dry 0.8	0 2 4 6 8 10 12 14 16 18 20 22 24 26 BH-7 @ 30' 28 1650 20				Sand w/ silt, light brown lo grained sand Well Graded Sand, fine to light brown Sand w/ Silt, light brown-re loose fine to medium graine Caliche Silty Sand, 25% fine-mediu caliche, loose - Reddish, caliche FeO	ose 60% fine-med coarse grained sand eddish d sand (40%) um grained sand,	

							Boring/Well #	BH-7	
	malianco E	aineariu	I Rom	adiation			Project:	Sarah M Hedges #00	1
	Environme	atal Inc	ig M Rein	culution			Project #	17817002	
	Environmen	ntai, inc	•				Date	8/31/2017	
Penetration Resistance Moisture Content	V apor (ppm) Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
Dry	4.0	BH-7 @ 35' 1655	30 32 34 36					- 	-
			38 40 42 44 46 48 50						
			52 54 56 58 60 62 64					- - - - - - - - - - - - - - - - - - -	
			68 70 72 74					- - - - - - - - - - - 	-