

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Burlington Resources Oil & Gas Co.	Contact Bobby Spearman
Address 3401 East 30 th St, Farmington, NM	Telephone No. (505)-320-3045
Facility Name: SJ 32-7 301 SWD	Facility Type: Injection well

Surface Owner: BLM	Mineral Owner: BLM	API No. 3004528549
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LOCATION OF RELEASE

Unit Letter M	Section 34	Township 32	Range 7	Feet from the 735	North/South Line South	Feet from the 761	East/West Line West	County San Juan
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Latitude 36.9326500 _Longitude -107.5601200

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 415 bbl	Volume Recovered 402 bbl
Source of Release SWD Filter Pot	Date and Hour of Occurrence 5-16-17 12:30A	Date and Hour of Discovery 5-16-17 7:30A
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Gasket failure on the Filter Pot allowed tanks to drain produced water onto location

Describe Area Affected and Cleanup Action Taken.*

Isolated filter Pot and vacuumed up standing water. Repaired facility.

Release assessment was completed by third-party environmental and Analytical results were below the NMOCD regulatory standards – no further action required. The soil sampling report is attached for review. No further remediation required

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>R. Spearman</i>	OIL CONSERVATION DIVISION	
Printed Name: Bobby Spearman	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Environmental Specialist	Approval Date: 8/24/17	Expiration Date:
E-mail Address: Robert.E.Spearman@conocophillips.com	Conditions of Approval: —	Attached <input type="checkbox"/>
Date: 6-27-17	Phone: (505) 320-3045	

* Attach Additional Sheets If Necessary

OIL CONS. DIV DIST. 3

JUN 30 2017

403



June 23, 2017

Mr. Robert Spearman
ConocoPhillips Company
3401 East 30th Street
Farmington, New Mexico 87401

**RE: San Juan 32-7 Unit 301 SWD
Spill Assessment Report
Case Number: NVF1714350484
ConocoPhillips Company
San Juan County, New Mexico**

**OIL CONS. DIV DIST. 3
JUN 30 2017**

Dear Mr. Spearman:

LT Environmental, Inc. (LTE), on behalf of ConocoPhillips Company (COPC), conducted a spill release assessment at the COPC San Juan 32-7 Unit 301 SWD (Site). Approximately 415 barrels (bbls) of produced water was released due to failure of a gasket on the filter pot. Produced water overtopped the berm in the southern corner of the Site and flowed down an ephemeral drainage where COPC contractors constructed a dam and contained the flow approximately 400 feet south of the Site. The purpose of the investigation was to determine the extent of the release and characterize the impact to soil.

Site Description

The Site is in the southwest quarter of the southwest quarter of Section 34, Township 32 North, and Range 7 West in San Juan County, New Mexico, on Burnt Mesa, as depicted on Figure 1, and is located at N36.93265, W107.56012. Based on the New Mexico Oil Conservation Division (NMOCD) site ranking criteria determined for the Site: (1) depth to water greater than 100 feet below ground surface; (2) livestock well SJ01612 is located 850 feet northeast of the release location; (3) no surface water bodies located within 1,000 feet; and (4) the NMOCD remediation action levels for site ranking of 10 are 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/kg for total petroleum hydrocarbons (TPH). Action levels are not currently established for chloride concentrations.

On May 16, 2017, COPC personnel discovered standing water on the south-southeast quadrant of the Site. COPC reported the release that same day to the NMOCD on an initial *C-141 Release Notification and Corrective Action Form*. In response to the release, COPC contractors hydro-vacuumed standing water from the Site, accounting for 402 bbls of recovered fluids. A liner was visible in several locations near the edges of the location butted up against the berm. COPC personnel followed the release off-location down a small intermittent drainage that flowed along the fence line of the Williams San Juan 32-7 #1 CDP lease and constructed an earthen dam approximately 400 feet downgradient using



native soil. Soils within the drainage consisted of approximately 6 inches to 1 foot of sand and pebbles on sandstone.

Soil Sampling

During the site investigation on May 17, 2017, LTE collected three 5-point composite soil samples and one 10-point composite soil sample for field screening and laboratory confirmation. Soil composite sample SC-1 was collected from the release area on the leased location. Soil composite samples SC-2 through SC-4 were collected every 200 linear feet along the release pathway within the drainage. Samples were field screened 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. The composite soil samples were thoroughly mixed and collected directly into a pre-cleaned glass jar, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analytical Laboratory Sciences (HEAL) in Albuquerque, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using United States Environmental Protection Agency (USEPA) Method 8021, total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) per USEPA Method 8015, and chloride per Method 300.0. The samples were shipped, received, and analyzed within the required holding times. One 3-point composite background soil sample was collected off-site and upgradient for comparison of native soil conditions. The sample locations are depicted on a site map on Figure 2. A photographic log is included as Attachment 1.

Soil Analytical Results

Five samples were collected and submitted for laboratory analysis. These laboratory analytical results were compliant with NMOCD action levels at the Site and along the release pathway. However, results indicated chloride concentrations were detected above background concentrations. The highest chloride concentration was detected in soil sample SC-1 at 770 milligrams per kilogram (mg/kg). The lowest chloride concentration was 390 mg/kg in downgradient soil sample SC-4. Field data and the laboratory analytical results are presented in Table 1. The complete HEAL laboratory analytical reports are included as Attachment 2.

Conclusions

On March 16 and 24, 2017, field and laboratory analytical results indicated all samples were compliant with NMOCD action levels for VOCs, benzene, total BTEX, and TPH. Chloride concentrations exceeded the native background concentration. The highest chloride concentration was detected in SC-1 on an active production pad where revegetation will not occur until final reclamation. Chloride concentrations outside of the



active pad ranged from 390 mg/kg to 510 mg/kg. No dead vegetation was observed along the release footprint as documented on the attached photographic log. The release was restricted to a small drainage with little to no vegetation growth. Due to the negative charge of the chloride ion, it is generally mobile and easily migrates below the root zone of most plant species through natural precipitation. Since depth to groundwater is greater than 100 feet, groundwater is unlikely to be affected by the migrating ions. Disruption of natural vegetation caused by active soil removal will likely be more detrimental to the overall environment than allowing natural attenuation to occur. As such, LTE recommends no further action for the Site once the constructed dam and any significant erosion caused by the release is addressed.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Emilee Skyles". The signature is written in a cursive, flowing style.

Emilee Skyles
Staff Geologist

A handwritten signature in black ink that reads "Ashley L. Ager". The signature is written in a cursive, flowing style.

Ashley Ager, M.S., P.G.
Senior Geologist

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map
- Table 1 – Soil Field and Analytical Results
- Attachment 1 – Photographic Log
- Attachment 2 – Laboratory Analytical Reports

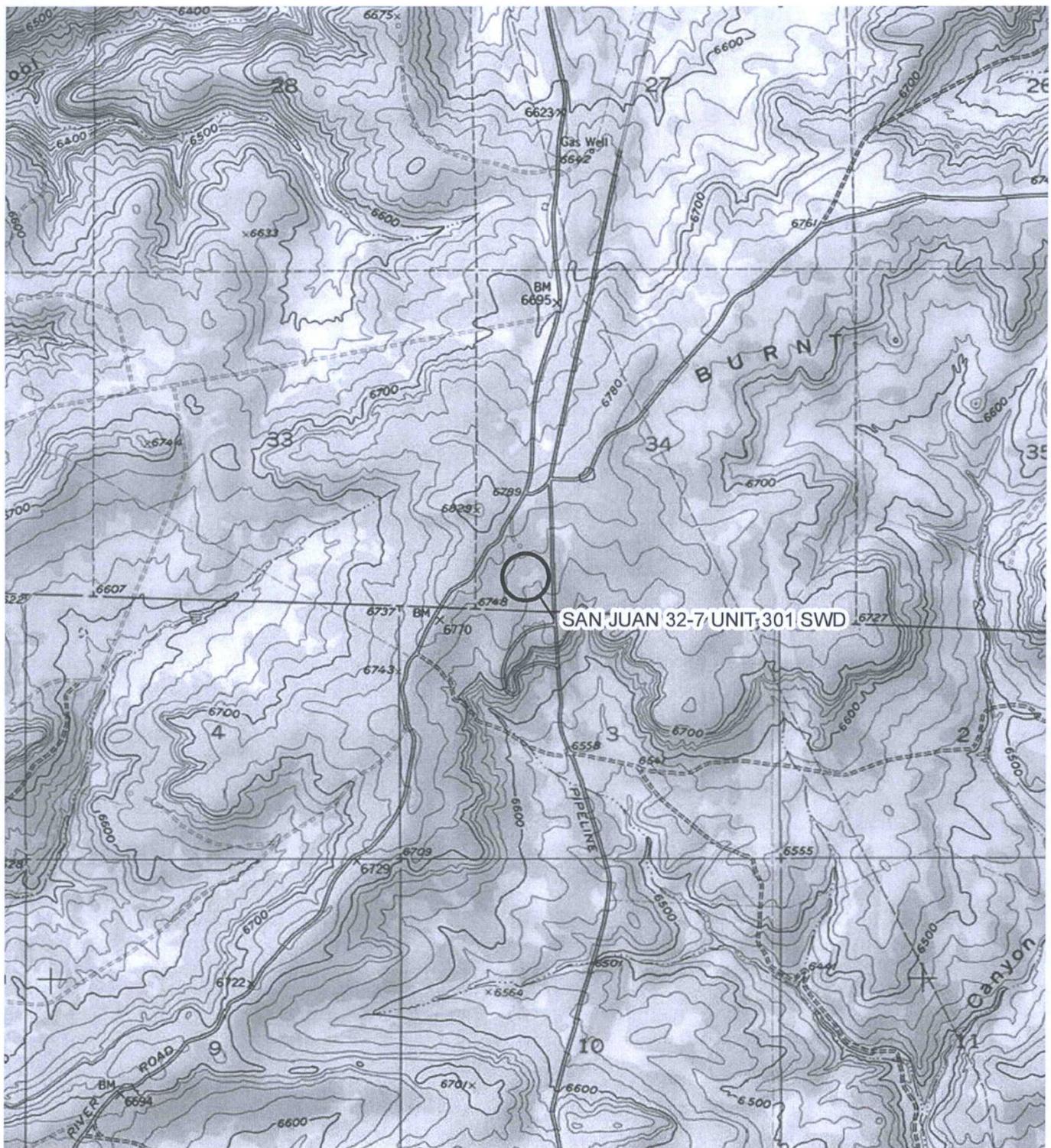


IMAGE COURTESY OF ESRI/USGS

LEGEND

○ SITE LOCATION

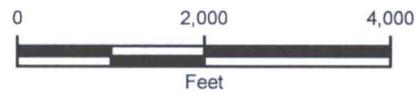


FIGURE 1
SITE LOCATION MAP
 SAN JUAN 32-7 UNIT 301 SWD
 SWSW SEC 34-T32N-R7W
 SAN JUAN COUNTY, NEW MEXICO
 CONOCOPHILLIPS COMPANY





IMAGE COURTESY OF ESRI

LEGEND

- X RELEASE LOCATION
- SOIL SAMPLE SC-1 COMPOSITE ALIQUOT LOCATION
- SOIL SAMPLE SC-2 COMPOSITE ALIQUOT LOCATION
- SOIL SAMPLE SC-3 COMPOSITE ALIQUOT LOCATION
- SOIL SAMPLE SC-4 COMPOSITE ALIQUOT LOCATION
- ▲ BACKGROUND SOIL SAMPLE COMPOSITE ALIQUOT LOCATION
- RELEASE ON LOCATION
- RELEASE PATHWAY

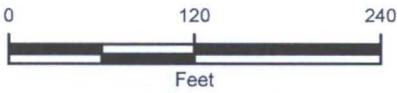


FIGURE 2
SITE MAP
 SAN JUAN 32-7 UNIT 301 SWD
 SWSW SEC 34-T32N-R7W
 SAN JUAN COUNTY, NEW MEXICO
 CONOCOPHILLIPS



TABLES

**TABLE 1
SOIL FIELD AND ANALYTICAL RESULTS**

**SAN JUAN 32-7 Unit 301 SWD
SAN JUAN COUNTY, NEW MEXICO
CONOCOPHILLIPS COMPANY**

Sample ID	Sample Date	Vapor (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - MRO (mg/kg)	Chloride (mg/kg)
SC-1	5/3/2017	0.5	<0.025	<0.221	<4.9	<9.5	<48	770
SC-2	5/3/2017	1.7	<0.023	<0.207	<4.6	<9.8	<49	510
SC-3	5/3/2017	1.9	<0.024	<0.217	<4.8	<9.7	<48	480
SC-4	5/3/2017	0.2	<0.023	<0.207	<4.6	<9.6	<48	390
Background	5/17/2017	NA	<0.023	<0.210	<4.7	<10	<50	<30
NMOCD Action Levels			10	50	1,000			NE

NOTES:

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics (C11-C28)

GRO - gasoline range organics (C6-C10)

mg/kg - milligrams per kilogram

MRO - motor oil range organics (C28-C35)

NA - not analyzed

NE - not established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million

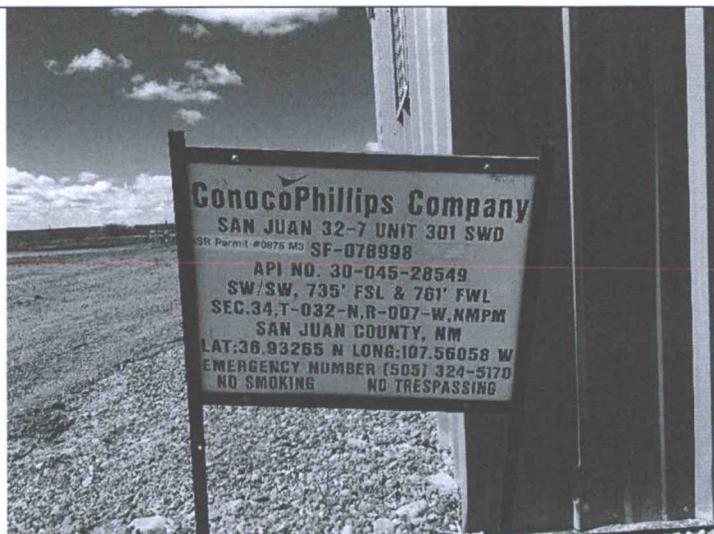
TPH - total petroleum hydrocarbons

< - indicates result is below the laboratory detection limit

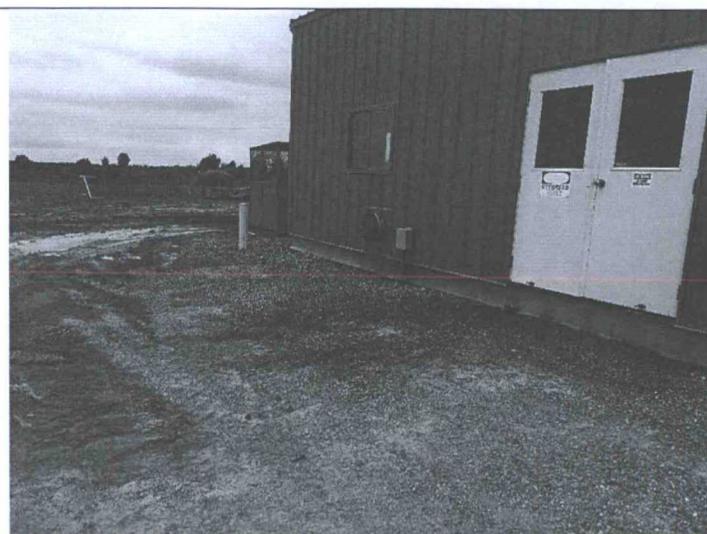


ATTACHMENT 1
PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG



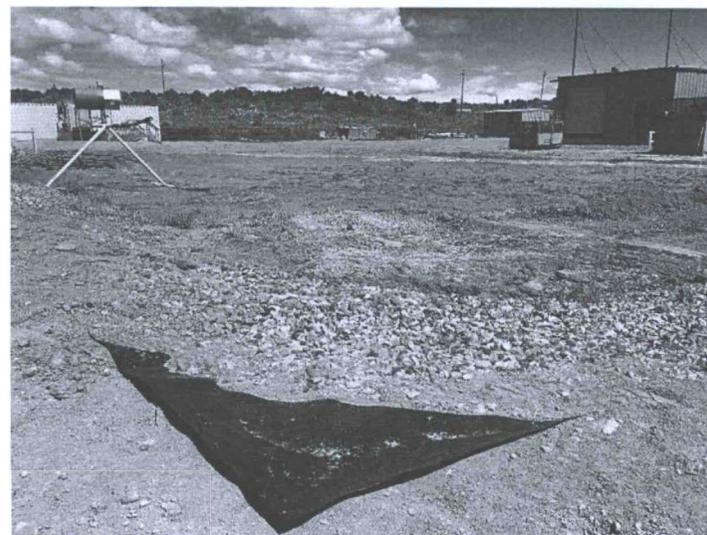
Photograph 1: Location signage.



Photograph 2: View west of release location in foreground.



Photograph 3: View east of release area on site.



Photograph 4: View north from the edge of the site.

PHOTOGRAPHIC LOG



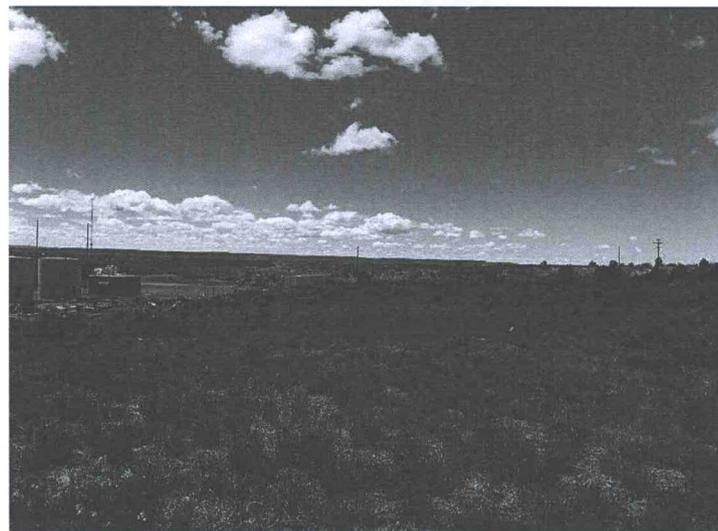
Photograph 5: View south with SC-2 sample location in foreground.



Photograph 6: View south with SC-3 sample location in foreground.



Photograph 7: View north at the toe of the release and SC-4 sample location.



Photograph 8: View southwest of background sample location with the site in the background.

ATTACHMENT 2
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

May 24, 2017

Emilee Skyles

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL:

FAX

RE: San Juan 32-7 Unit 301 SWD

OrderNo.: 1705953

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/18/2017 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 www.hallenvironmental.com 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE **Client Sample ID:** SC-1
Project: San Juan 32-7 Unit 301 SWD **Collection Date:** 5/17/2017 12:29:00 PM
Lab ID: 1705953-001 **Matrix:** SOIL **Received Date:** 5/18/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	770	30		mg/Kg	20	5/23/2017 2:11:12 PM	31903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/19/2017 7:03:12 PM	31814
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/19/2017 7:03:12 PM	31814
Surr: DNOP	98.6	70-130		%Rec	1	5/19/2017 7:03:12 PM	31814
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/19/2017 8:15:38 PM	31812
Surr: BFB	91.3	54-150		%Rec	1	5/19/2017 8:15:38 PM	31812
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/19/2017 8:15:38 PM	31812
Toluene	ND	0.049		mg/Kg	1	5/19/2017 8:15:38 PM	31812
Ethylbenzene	ND	0.049		mg/Kg	1	5/19/2017 8:15:38 PM	31812
Xylenes, Total	ND	0.098		mg/Kg	1	5/19/2017 8:15:38 PM	31812
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	5/19/2017 8:15:38 PM	31812

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	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 1705953

Date Reported: 5/24/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-2

Project: San Juan 32-7 Unit 301 SWD

Collection Date: 5/17/2017 11:40:00 AM

Lab ID: 1705953-002

Matrix: SOIL

Received Date: 5/18/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	510	30		mg/Kg	20	5/23/2017 2:23:37 PM	31903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/19/2017 7:25:19 PM	31814
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/19/2017 7:25:19 PM	31814
Surr: DNOP	101	70-130		%Rec	1	5/19/2017 7:25:19 PM	31814
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/19/2017 8:39:42 PM	31812
Surr: BFB	98.0	54-150		%Rec	1	5/19/2017 8:39:42 PM	31812
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/19/2017 8:39:42 PM	31812
Toluene	ND	0.046		mg/Kg	1	5/19/2017 8:39:42 PM	31812
Ethylbenzene	ND	0.046		mg/Kg	1	5/19/2017 8:39:42 PM	31812
Xylenes, Total	ND	0.092		mg/Kg	1	5/19/2017 8:39:42 PM	31812
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	5/19/2017 8:39:42 PM	31812

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	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 1705953

Date Reported: 5/24/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-3

Project: San Juan 32-7 Unit 301 SWD

Collection Date: 5/17/2017 11:29:00 AM

Lab ID: 1705953-003

Matrix: SOIL

Received Date: 5/18/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	480	30		mg/Kg	20	5/23/2017 2:36:01 PM	31903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/19/2017 7:47:33 PM	31814
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/19/2017 7:47:33 PM	31814
Surr: DNOP	102	70-130		%Rec	1	5/19/2017 7:47:33 PM	31814
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/19/2017 9:03:51 PM	31812
Surr: BFB	95.7	54-150		%Rec	1	5/19/2017 9:03:51 PM	31812
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/19/2017 9:03:51 PM	31812
Toluene	ND	0.048		mg/Kg	1	5/19/2017 9:03:51 PM	31812
Ethylbenzene	ND	0.048		mg/Kg	1	5/19/2017 9:03:51 PM	31812
Xylenes, Total	ND	0.097		mg/Kg	1	5/19/2017 9:03:51 PM	31812
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	1	5/19/2017 9:03:51 PM	31812

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	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.

CLIENT: LTE Client Sample ID: SC-4
 Project: San Juan 32-7 Unit 301 SWD Collection Date: 5/17/2017 11:21:00 AM
 Lab ID: 1705953-004 Matrix: SOIL Received Date: 5/18/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	390	30		mg/Kg	20	5/23/2017 3:13:15 PM	31903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/19/2017 8:09:35 PM	31814
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/19/2017 8:09:35 PM	31814
Surr: DNOP	104	70-130		%Rec	1	5/19/2017 8:09:35 PM	31814
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/19/2017 9:27:55 PM	31812
Surr: BFB	91.6	54-150		%Rec	1	5/19/2017 9:27:55 PM	31812
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/19/2017 9:27:55 PM	31812
Toluene	ND	0.046		mg/Kg	1	5/19/2017 9:27:55 PM	31812
Ethylbenzene	ND	0.046		mg/Kg	1	5/19/2017 9:27:55 PM	31812
Xylenes, Total	ND	0.092		mg/Kg	1	5/19/2017 9:27:55 PM	31812
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	1	5/19/2017 9:27:55 PM	31812

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	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#: 1705953

24-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31903	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	31903	RunNo:	42994					
Prep Date:	5/23/2017	Analysis Date:	5/23/2017	SeqNo:	1353923	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	1.5								
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Sample ID	LCS-31903	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	31903	RunNo:	42994					
Prep Date:	5/23/2017	Analysis Date:	5/23/2017	SeqNo:	1353924	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	14	1.5	15.00	0	92.2	90	110			
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Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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#: 1705953

24-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	LCS-31814	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31814	RunNo:	42914					
Prep Date:	5/18/2017	Analysis Date:	5/19/2017	SeqNo:	1351129	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	73.2	114			
Surr: DNOP	4.7		5.000		93.3	70	130			

Sample ID	MB-31814	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31814	RunNo:	42914					
Prep Date:	5/18/2017	Analysis Date:	5/19/2017	SeqNo:	1351130	Units:	mg/Kg			
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	9.7		10.00		97.0	70	130			

Sample ID	LCS-31865	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31865	RunNo:	42945					
Prep Date:	5/22/2017	Analysis Date:	5/22/2017	SeqNo:	1351371	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.8	70	130			

Sample ID	MB-31865	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31865	RunNo:	42945					
Prep Date:	5/22/2017	Analysis Date:	5/22/2017	SeqNo:	1351372	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		97.8	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705953

24-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31812	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31812	RunNo:	42919					
Prep Date:	5/18/2017	Analysis Date:	5/19/2017	SeqNo:	1351043	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.9	54	150			

Sample ID	LCS-31812	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31812	RunNo:	42919					
Prep Date:	5/18/2017	Analysis Date:	5/19/2017	SeqNo:	1351044	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.5	76.4	125			
Surr: BFB	1100		1000		105	54	150			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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#: 1705953
24-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31812	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	31812	RunNo:	42919					
Prep Date:	5/18/2017	Analysis Date:	5/19/2017	SeqNo:	1351066	Units:	mg/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-Bromofluorobenzene	1.1		1.000		107	66.6	132			

Sample ID	LCS-31812	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	31812	RunNo:	42919					
Prep Date:	5/18/2017	Analysis Date:	5/19/2017	SeqNo:	1351067	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.0	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LTE

Work Order Number: 1705953

RcptNo: 1

Received By: Ashley Gallegos 5/18/2017 6:45:00 AM
 Completed By: Ashley Gallegos 5/18/2017 8:34:23 AM
 Reviewed By: *aj* 5/18/17

aj
aj

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
 - 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 - 6. Sample(s) in proper container(s)? Yes No
 - 7. Sufficient sample volume for indicated 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 received broken? Yes No
 - 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
 - 13. Are matrices correctly identified on Chain of Custody? Yes No
 - 14. Is it clear what analyses were requested? Yes No
 - 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No
- # of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			

Chain-of-Custody Record

Client: LT Environmental, Inc

Mailing Address: 848 E. 2nd Ave

Durango CO 81301

Phone #: 970 385 1096

email or Fax#: eskyls@ltenv.com

QAC/QC Package: Standard Level 4 (Full Validation)

Accreditation: NELAP Other _____

EDD (Type) _____

Turn-Around Time: Standard Rush

Project Name: San Juan 32-7 Unit 301 SWD

Project #: 22112702

Project Manager: E. Skyles

Sampler: E. Skyles

On/Off: Yes No

Sample Temperature: 40-05(C) = 35

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chlorides 300.0	Air Bubbles (Y or N)
5/17/17	1229	soil	SC-1	1-4oz	cool	1705953	X	X									X	
5/17/17	1140	soil	SC-2	1-4oz	cool	-002	X	X									X	
5/17/17	1129	soil	SC-3	1-4oz	cool	-003	X	X									X	
5/17/17	1121	soil	SC-4	1-4oz	cool	-004	X	X									X	

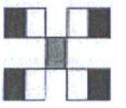
Received by: John West Date: 5/17/17 Time: 1400

Relinquished by: [Signature] Date: 05/18/17 Time: 17

Received by: [Signature] Date: 05/18/17 Time: 17

Relinquished by: [Signature] Date: 05/18/17 Time: 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 marked on the analytical report. CON



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Remarks: Call to Conoco Phillips
Area Fixed Equipment
Super Chrt P/erson
AR 4549W
Please cc: Robert E. Spearman
@conocophillips.com



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

May 31, 2017

Emilee Skyles

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL:

FAX

RE: San Juan 32-7 Unit 301 SWD

OrderNo.: 1705B83

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/23/2017 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 www.hallenvironmental.com 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1705B83

Date Reported: 5/31/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Background

Project: San Juan 32-7 Unit 301 SWD

Collection Date: 5/19/2017 11:05:00 AM

Lab ID: 1705B83-001

Matrix: SOIL

Received Date: 5/23/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	5/26/2017 3:36:52 PM	31989
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/25/2017 10:47:45 PM	31932
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/25/2017 10:47:45 PM	31932
Surr: DNOP	85.2	70-130		%Rec	1	5/25/2017 10:47:45 PM	31932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Surr: BFB	98.0	54-150		%Rec	1	5/24/2017 1:22:17 PM	31921
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Toluene	ND	0.047		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Ethylbenzene	ND	0.047		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Xylenes, Total	ND	0.093		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	5/24/2017 1:22:17 PM	31921

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 5
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	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#: 1705B83
 31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31989	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	31989	RunNo:	43101					
Prep Date:	5/26/2017	Analysis Date:	5/26/2017	SeqNo:	1356922	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31989	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	31989	RunNo:	43101					
Prep Date:	5/26/2017	Analysis Date:	5/26/2017	SeqNo:	1356923	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.6	90	110			

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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705B83
31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	LCS-31956	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31956	RunNo:	43052					
Prep Date:	5/25/2017	Analysis Date:	5/25/2017	SeqNo:	1354925	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.7	70	130			

Sample ID	MB-31956	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31956	RunNo:	43052					
Prep Date:	5/25/2017	Analysis Date:	5/25/2017	SeqNo:	1354926	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.3	70	130			

Sample ID	LCS-31932	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31932	RunNo:	43051					
Prep Date:	5/24/2017	Analysis Date:	5/25/2017	SeqNo:	1355829	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.8	73.2	114			
Surr: DNOP	4.5		5.000		89.3	70	130			

Sample ID	MB-31932	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31932	RunNo:	43051					
Prep Date:	5/24/2017	Analysis Date:	5/25/2017	SeqNo:	1355830	Units:	mg/Kg			
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	9.4		10.00		94.4	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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#: 1705B83
31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31921	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354470	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		97.8	54	150			

Sample ID	LCS-31921	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354471	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	76.4	125			
Surr: BFB	1100		1000		106	54	150			

Sample ID	1705B83-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Background	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354473	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.8	0.36	1.779	0	101	77.8	128			
Surr: BFB	81		71.15		114	54	150			

Sample ID	1705B83-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Background	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354474	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.45	0	103	77.8	128	172	20	R
Surr: BFB	1000		938.1		110	54	150	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705B83

31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31921	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354496	Units:	mg/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-Bromofluorobenzene	1.2		1.000		117	66.6	132			

Sample ID	LCS-31921	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354497	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LTE

Work Order Number: 1705B83

RcptNo: 1

Received By: Anne Thorne 5/23/2017 7:15:00 AM

Anne Thorne

Completed By: Anne Thorne 5/23/2017 9:22:24 AM

Anne Thorne

Reviewed By: *SPC 05/23/17*

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes No NA
5. Were all samples received at a temperature of >0° C to 6.0°C? Yes No NA
6. Sample(s) in proper container(s)? Yes No
7. Sufficient sample volume for indicated 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 received broken? Yes No
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
13. Are matrices correctly identified on Chain of Custody? Yes No
14. Is it clear what analyses were requested? Yes No
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			



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

May 31, 2017

Emilee Skyles

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL:

FAX

OIL CONS. DIV DIST. 3

JUN 30 2017

RE: San Juan 32-7 Unit 301 SWD

OrderNo.: 1705B83

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/23/2017 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 www.hallenvironmental.com 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1705B83

Date Reported: 5/31/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Background

Project: San Juan 32-7 Unit 301 SWD

Collection Date: 5/19/2017 11:05:00 AM

Lab ID: 1705B83-001

Matrix: SOIL

Received Date: 5/23/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	5/26/2017 3:36:52 PM	31989
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/25/2017 10:47:45 PM	31932
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/25/2017 10:47:45 PM	31932
Surr: DNOP	85.2	70-130		%Rec	1	5/25/2017 10:47:45 PM	31932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Surr: BFB	98.0	54-150		%Rec	1	5/24/2017 1:22:17 PM	31921
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Toluene	ND	0.047		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Ethylbenzene	ND	0.047		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Xylenes, Total	ND	0.093		mg/Kg	1	5/24/2017 1:22:17 PM	31921
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	5/24/2017 1:22:17 PM	31921

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

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	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#: 1705B83

31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31989	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	31989	RunNo:	43101					
Prep Date:	5/26/2017	Analysis Date:	5/26/2017	SeqNo:	1356922	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31989	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	31989	RunNo:	43101					
Prep Date:	5/26/2017	Analysis Date:	5/26/2017	SeqNo:	1356923	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.6	90	110			

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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705B83
31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	LCS-31956	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31956	RunNo:	43052					
Prep Date:	5/25/2017	Analysis Date:	5/25/2017	SeqNo:	1354925	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.7	70	130			

Sample ID	MB-31956	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31956	RunNo:	43052					
Prep Date:	5/25/2017	Analysis Date:	5/25/2017	SeqNo:	1354926	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.3	70	130			

Sample ID	LCS-31932	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31932	RunNo:	43051					
Prep Date:	5/24/2017	Analysis Date:	5/25/2017	SeqNo:	1355829	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.8	73.2	114			
Surr: DNOP	4.5		5.000		89.3	70	130			

Sample ID	MB-31932	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31932	RunNo:	43051					
Prep Date:	5/24/2017	Analysis Date:	5/25/2017	SeqNo:	1355830	Units:	mg/Kg			
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	9.4		10.00		94.4	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705B83

31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID: MB-31921	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 31921	RunNo: 43026								
Prep Date: 5/23/2017	Analysis Date: 5/24/2017	SeqNo: 1354470	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		97.8	54	150			

Sample ID: LCS-31921	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 31921	RunNo: 43026								
Prep Date: 5/23/2017	Analysis Date: 5/24/2017	SeqNo: 1354471	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	76.4	125			
Surr: BFB	1100		1000		106	54	150			

Sample ID: 1705B83-001AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: Background	Batch ID: 31921	RunNo: 43026								
Prep Date: 5/23/2017	Analysis Date: 5/24/2017	SeqNo: 1354473	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.8	0.36	1.779	0	101	77.8	128			
Surr: BFB	81		71.15		114	54	150			

Sample ID: 1705B83-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: Background	Batch ID: 31921	RunNo: 43026								
Prep Date: 5/23/2017	Analysis Date: 5/24/2017	SeqNo: 1354474	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.45	0	103	77.8	128	172	20	R
Surr: BFB	1000		938.1		110	54	150	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
- R RPD outside accepted recovery limits
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705B83

31-May-17

Client: LTE
Project: San Juan 32-7 Unit 301 SWD

Sample ID	MB-31921	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354496	Units:	mg/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-Bromofluorobenzene	1.2		1.000		117	66.6	132			

Sample ID	LCS-31921	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	31921	RunNo:	43026					
Prep Date:	5/23/2017	Analysis Date:	5/24/2017	SeqNo:	1354497	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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
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 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LTE

Work Order Number: 1705B83

RcptNo: 1

Received By: Anne Thorne 5/23/2017 7:15:00 AM

Anne Thorne

Completed By: Anne Thorne 5/23/2017 9:22:24 AM

Anne Thorne

Reviewed By: *SRL 05/23/17*

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes No NA
5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
6. Sample(s) in proper container(s)? Yes No
7. Sufficient sample volume for indicated 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 received broken? Yes No
12. Does paperwork match bottle labels?
 (Note discrepancies on chain of custody) Yes No
13. Are matrices correctly identified on Chain of Custody? Yes No
14. Is it clear what analyses were requested? Yes No
15. Were all holding times able to be met?
 (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____	Date: _____
By Whom: _____	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding: _____	
Client Instructions: _____	

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

