

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

OIL CONS. DIV DIST. 3

MAY 18 2017

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 <b>ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 258-1607</b>
Facility Name: <b>San Juan 29-6 Unit 108M</b>	Facility Type: <b>Gas Well</b>

Surface Owner <b>Federal</b>	Mineral Owner <b>Federal (NMSF 078426)</b>	API No. <b>3003927536</b>
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**LOCATION OF RELEASE**

Unit Letter <b>E</b>	Section <b>31</b>	Township <b>29N</b>	Range <b>06W</b>	Feet from the <b>2320</b>	North/South Line <b>North</b>	Feet from the <b>1155</b>	East/West Line <b>West</b>	County <b>Rio Arriba</b>
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Latitude 36.68317 Longitude -107.50916

**NATURE OF RELEASE**

Type of Release <b>Condensate &amp; Produced Water</b>	Volume of Release <b>46bbl &amp; 2bbl</b>	Volume Recovered <b>380 c/yds</b>
Source of Release <b>Production Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>11/14/16/ @ 12:00 pm</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>BLM (W. Thomas) &amp; OCD (V. Fields)</b>	
By Whom? <b>Lisa Hunter</b>	Date and Hour <b>November 15, 2016 @ 8:46 a.m. &amp; 8:50 a.m. via phone Email @ 8:58 a.m.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	
If a Watercourse was Impacted, Describe Fully.* <b>N/A</b>		

Describe Cause of Problem and Remedial Action Taken.\* **Approximately 46 bbls of condensate and 2 bbls produced water released from Production Tank due to small corrosion hole six inches from bottom of tank. Zero bbls recovered. Release remained in earthen bermed area and on location. Well is shut in.**

Describe Area Affected and Cleanup Action Taken.\*  
**Risk Rank: 100ppm. Excavation terminated at 33' x 30' x 8-10' Deep. Approximately 380 c/yds of contaminated soil and sandstone was transported to IEI Land Farm. Analytical results were below the regulatory standards for the walls, and a total TPH of 210 ppm and total BTEX is 5.78 ppm for the base. COPC has excavated to the maximum depth extent practicable due to hard, dense stone at approximately 10ft deep. With the excavation terminating at hard rock, and a very low BTEX (5.78 ppm), COPC believes the residual contaminates do not pose a present or foreseeable threat or an environmental risk to water, humans or animals. Approval to spray potassium permanganate and backfill was received by NMOCD April 6, 2017. The soil sampling report is attached for review.**

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: 	<u>OIL CONSERVATION DIVISION</u>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Lisa Hunter</b>	Approval Date: <b>6/22/2017</b>	Expiration Date:
Title: <b>Field Environmental Specialist</b>	Conditions of Approval:	
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Attached <input type="checkbox"/>	
Date: <b>May 11, 2017</b> Phone: <b>(505) 258-1607</b>		

\* Attach Additional Sheets If Necessary

NVF163213103

51



**LT Environmental, Inc.**  
848 East Second Avenue  
Durango, Colorado 81301  
T 970.385.1096

May 10, 2017

Ms. Lisa Hunter  
ConocoPhillips Company  
3401 East 30<sup>th</sup> Street  
Farmington, New Mexico 87401

**RE: San Juan 29-6 #108M Spill Remediation Report**  
**Case Number NVF1632131303**  
**ConocoPhillips Company**  
**Rio Arriba County, New Mexico**

Dear Ms. Hunter:

LT Environmental, Inc. (LTE), on behalf of ConocoPhillips Company (COPC), conducted a spill release assessment and excavation clearance at the COPC San Juan 29-6 #108M (Site). The release consisted of 46 barrels (bbl) of condensate and 2 bbl of produced water due to a small corrosion hole near the bottom of the production tank. The purpose of the investigation was to determine the lateral and vertical extent of the release, characterize the impact, and remediate to the applicable state regulatory standards.

#### **Site Description and History**

The Site is in the southwest quarter of the northwest quarter of Section 31, Township 29 North, and Range 6 West in Rio Arriba County, New Mexico, on Delgadita Mesa near San Rafael Canyon, as depicted on Figure 1. The Site is located at N36.68317, W107.50916 at 6,778 feet above mean sea level (amsl). A cathodic report for the Site dated March 2005 reported depth to water at 40 feet below ground surface (bgs). Based on the cathodic report, the New Mexico Oil Conservation Division (NMOCD) ranking criteria triggers the following remediation action levels: 100 parts per million (ppm) for volatile organic compounds (VOCs), 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX (benzene, toluene, ethylbenzene, and xylenes), and 100 mg/kg for total petroleum hydrocarbons (TPH).

On November 14, 2016, COPC personnel discovered an approximately 6-inch corrosion hole near the bottom of a 300 bbl production tank which resulted in the release of approximately 48 bbl, consisting of approximately 46 bbl of condensate and 2 bbl of produced water. The following day, COPC reported the release to the NMOCD on an initial *C-141 Release Notification and Corrective Action Form*. In response to the release, COPC contractors hydro-vacuumed standing condensate from the shallow soil profile around the production tank. Sandstone was encountered less than one foot bgs near the production tank, except for a small area that was previously trenched within the sandstone during facility setup and used to bury the communication line from the below-grade tank to the production tank. Within the trench, sandstone was encountered at approximately 3 feet bgs.



The production tank was emptied and placed on a Visqueen liner away from the impacted area. The below-grade tank and separator remained in place throughout site activities.

### **Initial Assessment Soil Sampling**

LTE followed proper one-call notification with New Mexico 811 in accordance with New Mexico Administrative Code (NMAC) 18.60.6. The facility was pre-marked and cleared by all parties. During the initial site investigation on December 2, 2016, LTE advanced eight soil boring holes in and around the release location with a hand auger and collected nine samples for field screening. All soil borings were terminated on sandstone between 6 inches and 3 feet bgs. Samples were field screened for 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. Based on elevated field VOC results, the soil sample with the highest value, BH-3 at 0.5 feet bgs with 4,502 ppm, was submitted for confirmation laboratory analysis. The soil sample was collected directly into a pre-cleaned glass jar, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The sample was 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 and total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) per USEPA Method 8015. An additional soil sample, BH-4 at 0.5 feet bgs, was submitted for delineation and characterization purposes. The samples were shipped, received, and analyzed within the required holding times. A site map with soil boring locations and field and laboratory results are depicted on Figure 2. A photograph log is included as Attachment 1. Based on field screening and laboratory results, the area directly beneath and within 30-foot radius were recommended for further excavation.

### **Excavation Oversight and Sampling**

Based on field and laboratory results from the initial investigation, COPC conducted excavation activities at the Site. On March 16, 2017, LTE collected soil composite samples SC-1 through SC-7 from the initial excavation limits. Soil samples SC-1 and SC-2 were collected using a decontaminated shovel from light brown, poorly graded, fine grained sand directly on top of sandstone. Soil samples SC-3 through SC-7 were collected using an excavator from light tan to brown to gray, medium grained sandstone.

Excavation of the sandstone unit continued March 27 and March 28, 2017 due to results of the initial excavation sampling. On March 28, 2017, composite soil samples SC-8 through SC-12 were collected from the final excavation extents and submitted under the same preparation guidelines and laboratory analyses listed above. The excavation was 30 feet by 30 feet by 0.5 feet or within sandstone at 10 feet bgs.



### **Initial Assessment Soil Analytical Results**

Two samples were collected and submitted for laboratory analysis from BH-3 and BH-4. These results indicated impact above NMOCD action levels within the berm juxtapose to the former production tank.

### **Excavation Clearance Soil Analytical Results**

Excavation clearance samples were collected over the course of two sampling events. On March 16, 2017, composite soil samples (SC-1 through SC-7) of the initial excavation extents were collected from the walls of the excavation, the upper sandstone base at 0.5 feet bgs, and the inset trench on sandstone at 3 feet bgs. Laboratory analytical results for soil samples SC-1 and SC-2 down to 0.5 feet bgs indicated no hydrocarbon impacts. However, laboratory analytical results for soil samples SC-3 through SC-7 ranged up to 403.2 mg/kg for total BTEX (SC-3) and 5,170 mg/kg for TPH (SC-5) and indicated additional excavation activities were required.

On March 27, 2017, composite soil samples SC-8 through SC-12 were collected from newly established excavation extents based on field observations and screening results. Laboratory analytical results for soil samples SC-8 and SC-12 indicated no concentrations of TPH or BTEX exceeded NMOCD action levels, except soil sample SC-9, which had a TPH (as GRO and DRO) concentration of 210 mg/kg and a VOC PID value of 112 mg/kg.

A site map with composite sample locations and results are presented on Figure 3 and Figure 4. Field data are included in Table 1, and the laboratory analytical results are presented in Table 2. The complete HEAL laboratory analytical reports are included as Attachment 2.

### **Conclusions**

Borehole BH-1 through BH-8 were advanced in and around the release area to a depth of 0.5 feet to 3 feet bgs. Groundwater was not encountered, and impact to shallow soil was limited to the area near the corrosion hole, as evidenced by odor and elevated field screening results. At that time, total depth within the underlying sandstone was indeterminable. Based on field screening and laboratory analytical results, LTE recommended traditional dig and haul remediation methods followed by confirmation sampling as the most viable solution for the Site.

On March 16, 27, and 28, 2017, excavation activities determined the contamination migrated vertically within the underlying sandstone to approximately 10 feet bgs. Field and laboratory analytical results indicated four of the final walls were compliant with NMOCD action levels for VOCs, benzene, BTEX, and TPH, except for soil sample SC-9. The base of the excavation was compliant with NMOCD action levels for benzene and BTEX but exceeded the NMOCD action levels for TPH (as GRO, DRO, and MRO).



On April 6, 2017, Ms. Vanessa Field, with NMOCD, granted verbal and written permission for COPC to spray the base of the excavation with potassium permanganate and backfill for site closure (Attachment 3). The final extents of the excavation were 30 feet by 33 feet by 8 to 10 feet deep. No further action is recommended for the Site.

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 email at [eskyles@ltenv.com](mailto:eskyles@ltenv.com).

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Emilee Skyles".

Emilee Skyles  
Staff Geologist

A handwritten signature in black ink, appearing to read "Ashley L. Ager".

Ashley Ager  
Senior Geologist

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map, Sample Locations, and Results
- Figure 3 – Initial Excavation
- Figure 4 – Final Excavation
- Table 1 – Soil Field Screening Results
- Table 2 – Soil Analytical Results
- Attachment 1 – Photograph Log
- Attachment 2 – Laboratory Analytical Reports
- Attachment 3 – NMOCD Variance Approval

## FIGURES

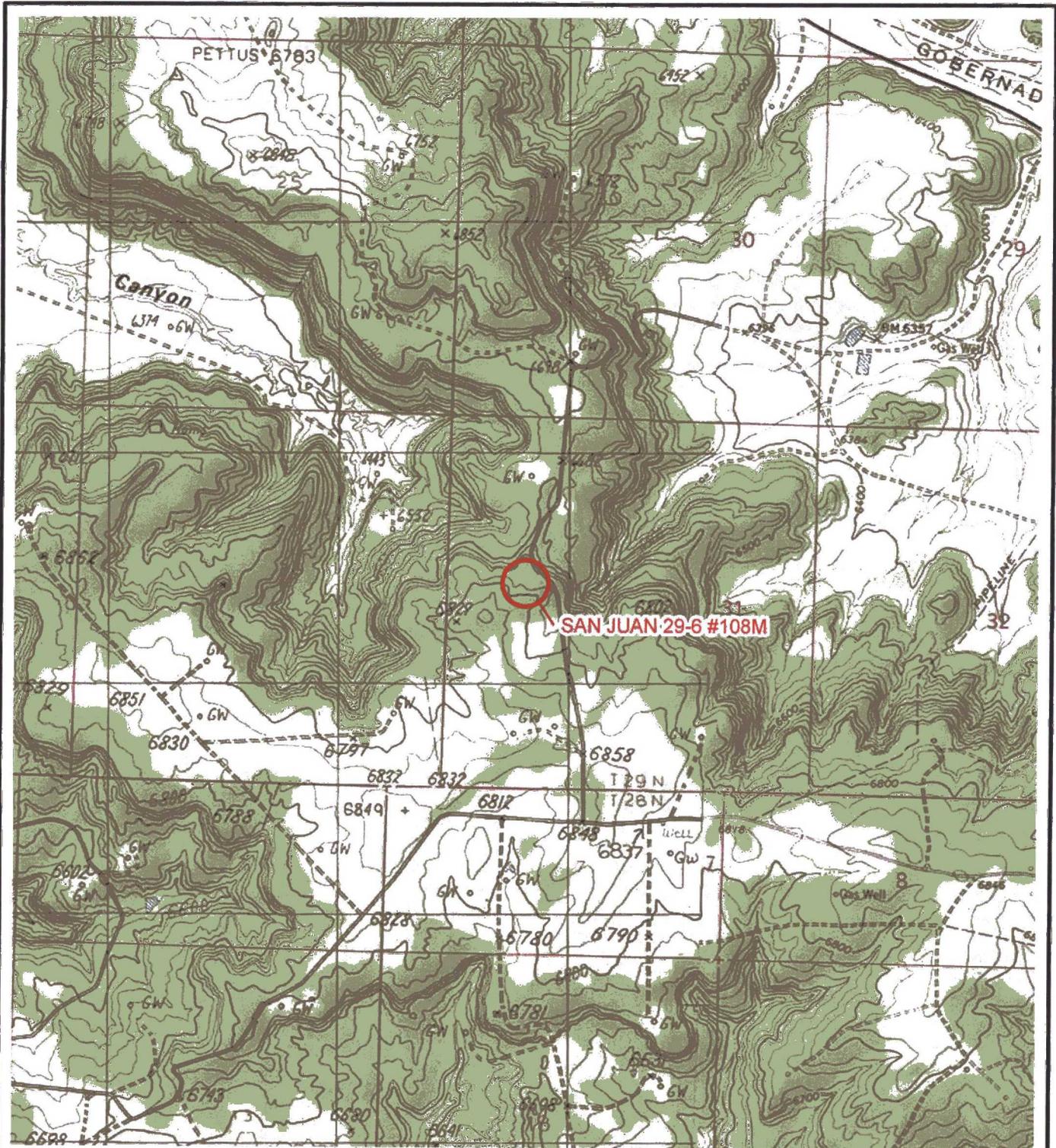


IMAGE COURTESY OF ESRI/USGS

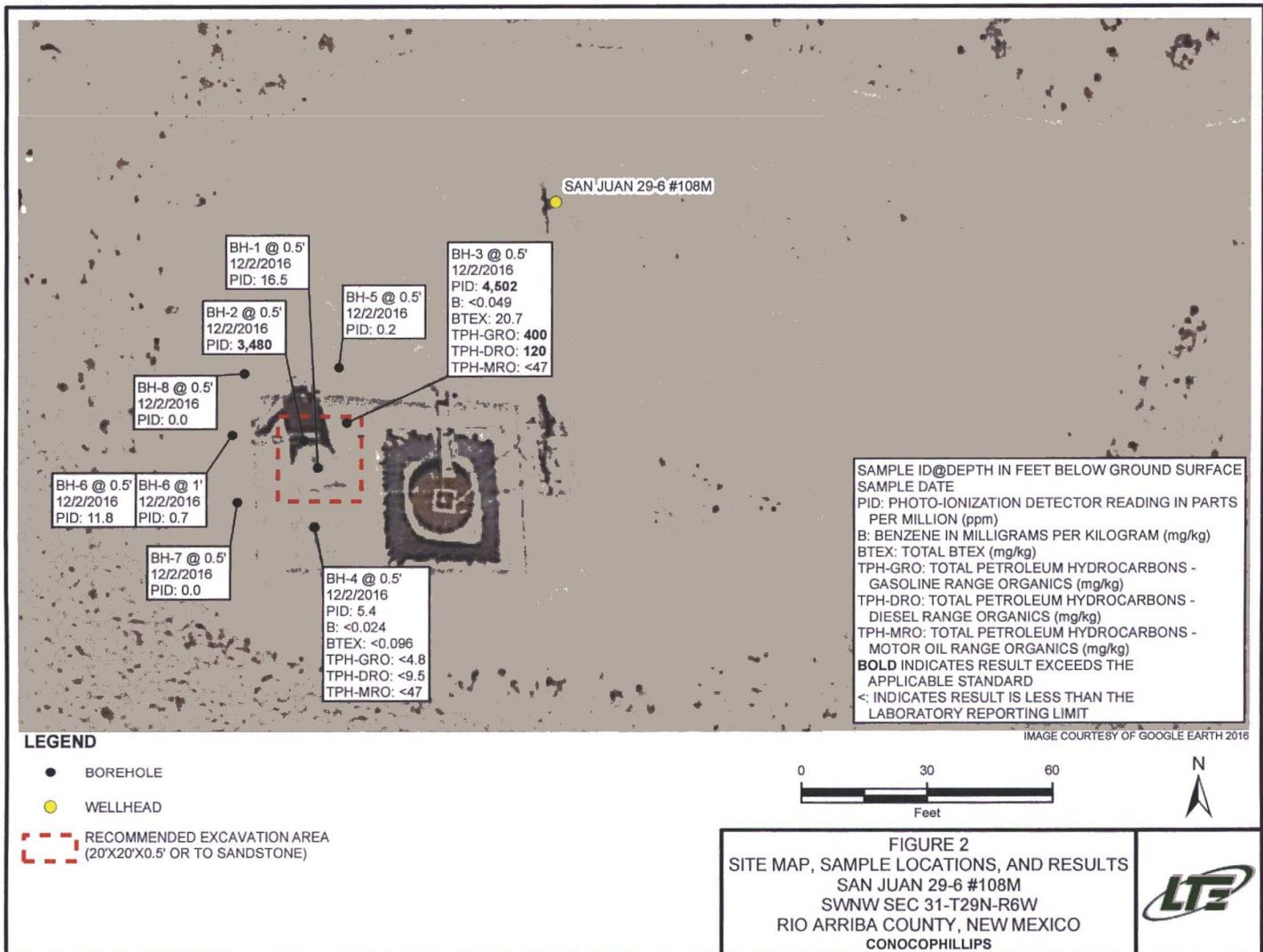
**LEGEND**

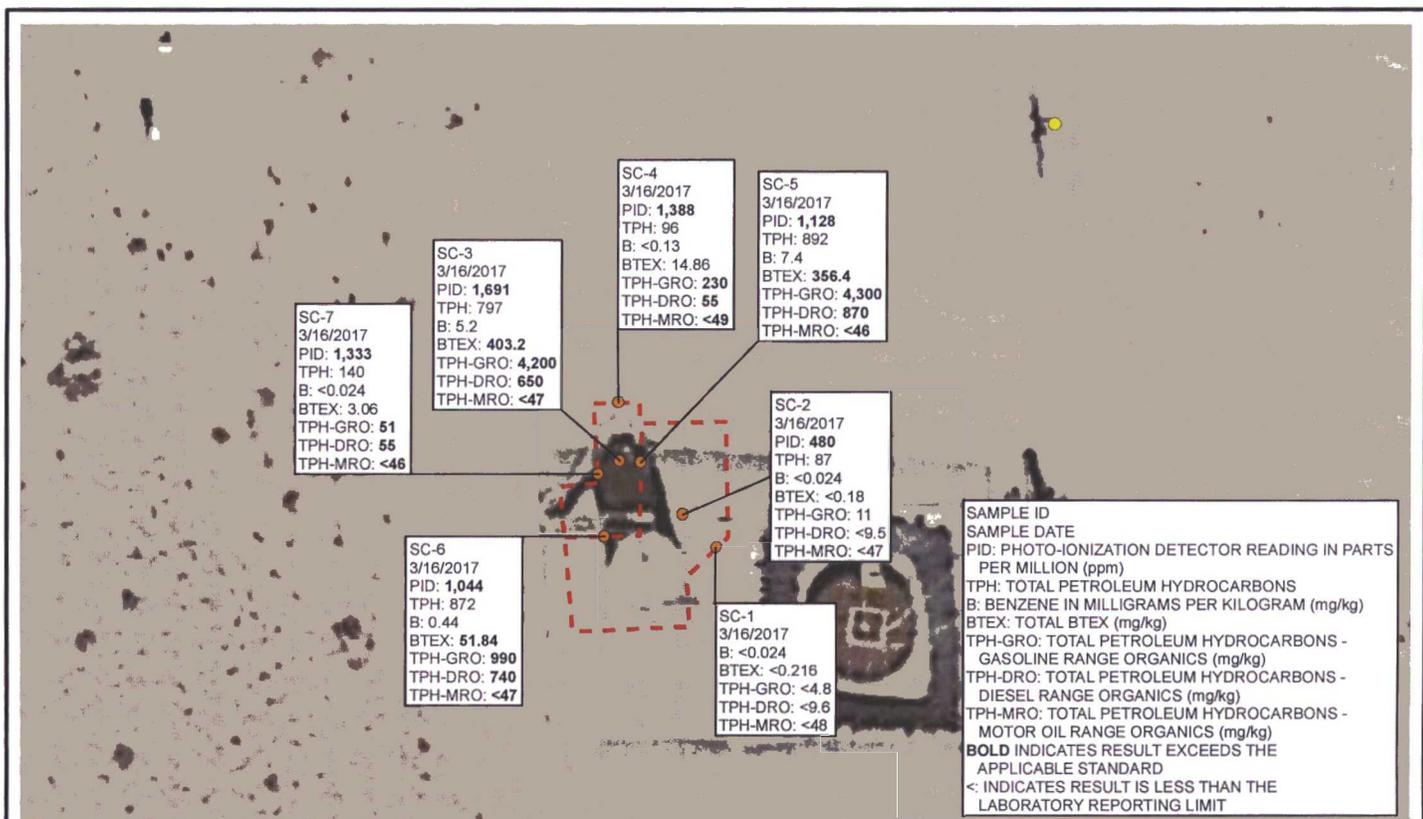
 SITE LOCATION



**FIGURE 1**  
**SITE LOCATION MAP**  
**SAN JUAN 29-6 #108M**  
**SWNW SEC 31-T29N-R6W**  
**RIO ARRIBA COUNTY, NEW MEXICO**  
**CONOCOPHILLIPS**



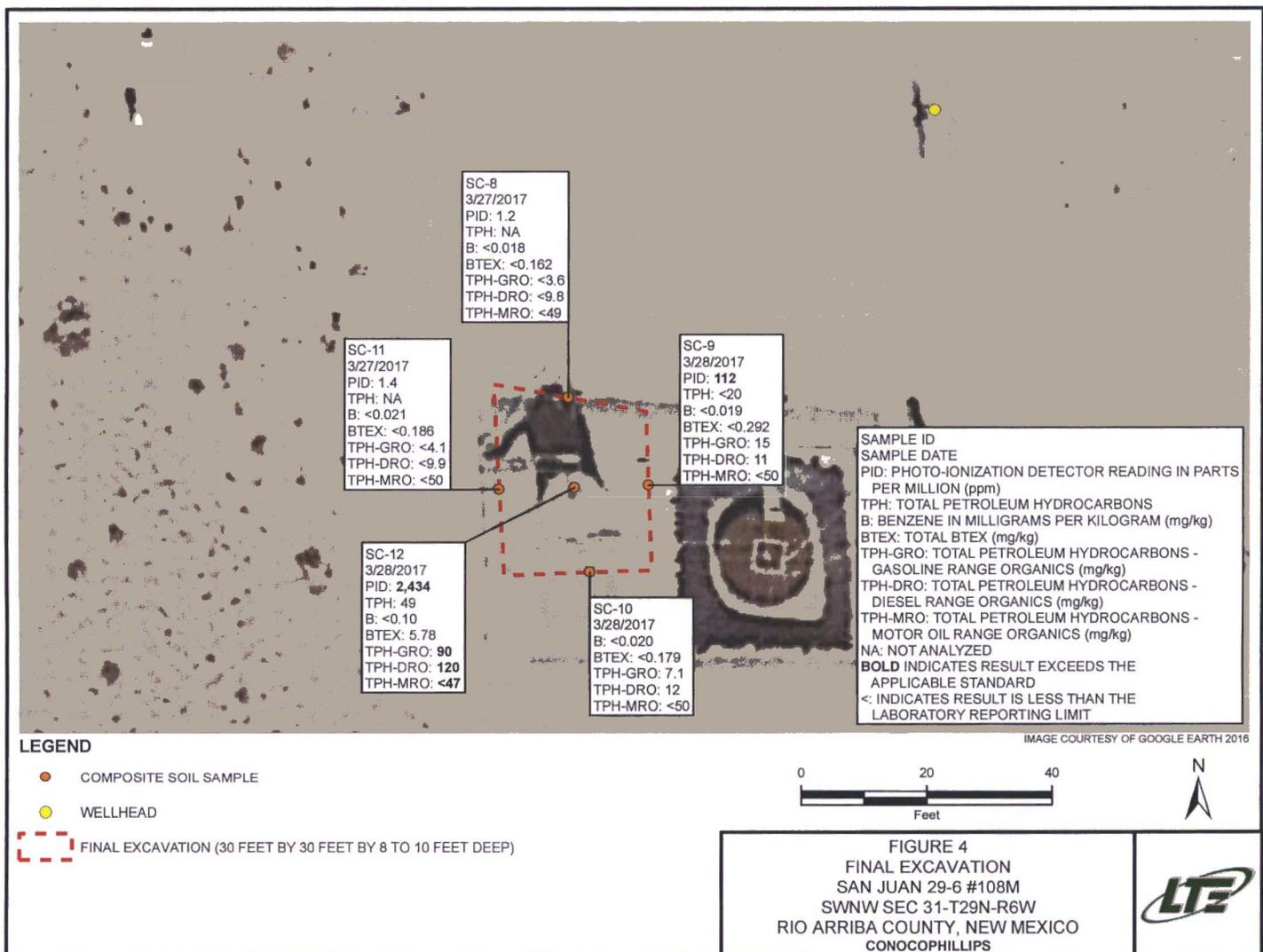




**FIGURE 3**  
 INITIAL EXCAVATION  
 SAN JUAN 29-6 #108M  
 SWNW SEC 31-T29N-R6W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 CONOCOPHILLIPS



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## TABLES

**TABLE 1  
SOIL FIELD SCREENING RESULTS**

**SAN JUAN 29-6 #108M  
RIO ARRIBA COUNTY, NEW MEXICO  
CONOCOPHILLIPS**

Sample ID	Sample Date	PID - VOCs	Total TPH
BH-1 @ 0.5'	12/2/2016	16.5	NA
BH-2 @ 8"	12/2/2016	<b>3,480</b>	NA
BH-3 @ 0.5'	12/2/2016	<b>4,502</b>	NA
BH-4 @ 0.5'	12/2/2016	5.4	NA
BH-5 @ 0.5'	12/2/2016	0.2	NA
BH-6 @ 0.5'	12/2/2016	11.8	NA
BH-6 @ 1'	12/2/2016	0.7	NA
BH-7 @ 0.5'	12/2/2016	0.0	NA
BH-8 @ 0.5'	12/2/2016	0.0	NA
SC-1	3/16/2017	18.3	63
SC-2	3/16/2017	<b>480</b>	87
SC-3	3/16/2017	<b>1,691</b>	<b>797</b>
SC-4	3/16/2017	<b>1,388</b>	96
SC-5	3/16/2017	<b>1,128</b>	<b>892</b>
SC-6	3/16/2017	<b>1,044</b>	<b>872</b>
SC-7	3/16/2017	<b>1,333</b>	<b>140</b>
SC-8	3/27/2017	1.2	NA
SC-9	3/28/2017	<b>112</b>	<20
SC-10	3/28/2017	18.6	<20
SC-11	3/27/2017	1.4	NA
SC-12	3/28/2017	<b>2,434</b>	49
<b>NMOCD Action Levels</b>		<b>100</b>	<b>100</b>

**NOTES:**

NA - not analyzed

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

**Bold** indicates results exceeds applicable standard

< - indicates result is below the method detection limit



**TABLE 2  
SOIL ANALYTICAL RESULTS**

**SAN JUAN 29-6 #108M  
RIO ARRIBA COUNTY, NEW MEXICO  
CONOCOPHILLIPS**

Sample ID	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - MRO (mg/kg)
BH-3 @ 0.5'	12/2/2016	<0.049	20.7	<b>400</b>	<b>120</b>	<47
BH-4 @ 0.5'	12/2/2016	<0.024	<0.216	<4.8	<9.5	<47
SC-1	3/16/2017	<0.024	<0.216	<4.8	<9.6	<48
SC-2	3/16/2017	<0.024	<0.18	11	<9.5	<47
SC-3	3/16/2017	5.2	<b>403.2</b>	<b>4,200</b>	<b>650</b>	<47
SC-4	3/16/2017	<0.13	14.86	<b>230</b>	<b>55</b>	<49
SC-5	3/16/2017	7.4	<b>356.4</b>	<b>4,300</b>	<b>870</b>	<46
SC-6	3/16/2017	0.44	<b>51.84</b>	<b>990</b>	<b>740</b>	<47
SC-7	3/16/2017	<0.024	3.06	<b>51</b>	<b>55</b>	<46
SC-8	3/27/2017	<0.018	<0.162	<3.6	<9.8	<49
SC-9	3/28/2017	<0.019	<0.292	15	11	<50
SC-10	3/28/2017	<0.020	<0.179	7.1	12	<50
SC-11	3/27/2017	<0.021	<0.186	<4.1	<9.9	<50
SC-12	3/28/2017	<0.10	5.78	<b>90</b>	<b>120</b>	<47
<b>NMOCD Action Levels</b>		<b>10</b>	<b>50</b>	<b>100</b>		

**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)

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

**Bold** indicates results exceeds applicable standard

< - indicates result is below the laboratory detection limit



## Emilee Skyles

---

**From:** Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>  
**Sent:** Thursday, April 6, 2017 1:51 PM  
**To:** Hunter, Lisa  
**Cc:** Smith, Cory, EMNRD; whitney thomas (l1thomas@blm.gov)  
**Subject:** [EXTERNAL]RE: San Juan 29-6 #108M - Request to Backfill

Good afternoon Lisa,

Per our phone conversation this afternoon, OCD approved COPC to spray Potassium Permanganate and backfill.

OCD's approval for in-situ remediation does not relieve COPC of any other requirements imposed by other agencies.

Please let me know if you have any questions or concerns.

Thank you,

Vanessa Fields  
Environmental Specialist  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos, Aztec, NM 87410  
(505)334-6178 ext 119  
Cell: (505) 419-0463  
[vanessa.fields@state.nm.us](mailto:vanessa.fields@state.nm.us)

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**From:** Hunter, Lisa [mailto:Lisa.Hunter@conocophillips.com]  
**Sent:** Thursday, April 6, 2017 7:12 AM  
**To:** Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>  
**Cc:** Smith, Cory, EMNRD <Cory.Smith@state.nm.us>  
**Subject:** FW: San Juan 29-6 #108M - Request to Backfill

Vanessa –

As busy as you are, this may have gotten buried in your email. If you can take a look, and let me know if you approve the backfill request, that would be great.

Please let me know if you have any questions.

Thanks

*Lisa Hunter*

Field Environmental Specialist  
ConocoPhillips Company

505.258.1607

[Lisa.Hunter@cop.com](mailto:Lisa.Hunter@cop.com)

*"Archaeology permits us to see small moments in time to witness events in everyday lives not recorded by history."*

**From:** Hunter, Lisa

**Sent:** Monday, April 03, 2017 11:12 AM

**To:** Fields, Vanessa, EMNRD ([Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)) <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>; [cory.smith@state.nm.us](mailto:cory.smith@state.nm.us); whitney thomas ([l1thomas@blm.gov](mailto:l1thomas@blm.gov)) <[l1thomas@blm.gov](mailto:l1thomas@blm.gov)>

**Subject:** FW: San Juan 29-6 #108M - Request to Backfill

Attached please find the lab report for the San Juan 29-6 Unit 108M. Excavation completed at approximately 30ft x 33ft x 8-10ft deep. After digging through contaminated sandstone, the base terminated at its deepest point on hard, dense stone at approximately 10ft deep, and excavating is no longer possible. As the attached report and the table below shows all the walls on the excavation cleared. The base has a total TPH of 210 ppm and total BTEX is 5.78 ppm (Risk Rank: 100ppm).

With the excavation terminating at hard rock, and a very low BTEX (5.78 ppm), COPC believes the residual contaminants do not pose a present or foreseeable threat or an environmental risk to water, humans or animals, and therefore requests to backfill the excavation with clean soil.

Sample ID	Sample Location	OVM ppm	Field TPH mg/kg	TPH – GRO mg/kg	TPH – DRO mg/kg	TPH – MRO mg/kg	Benzene mg/kg	BTEX mg/kg
<b>NMOCD Action Levels</b>		<b>100</b>	<b>100</b>	<b>100</b>			<b>10</b>	<b>50</b>
SC-8	North Wall	1.2	27	<3.6	<9.8	<49	<0.018	<0.162
SC-9	East Wall	112	<13	15	11	<50	<0.019	0.292
SC-10	South Wall	18.6	<13	7.1	12	<50	<0.020	<0.179
SC-11	West Wall	1.4	24	<4.1	<9.9	<50	<0.021	<0.186
SC-12	Base @ 8-10'	2,434	49	<b>90</b>	<b>120</b>	<b>&lt;47</b>	<0.10	5.78

Please let me know if you have any questions,

Thanks,

*Lisa Hunter*

Field Environmental Specialist

ConocoPhillips Company

505.258.1607

[Lisa.Hunter@cop.com](mailto:Lisa.Hunter@cop.com)

*"Archaeology permits us to see small moments in time to witness events in everyday lives not recorded by history."*



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

December 08, 2016

Emilee Skyles  
LTE  
2243 Main Ave Suite 3  
Durango, CO 81301  
TEL:  
FAX

RE: COPC SJ 29-6 #108M

OrderNo.: 1612120

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/3/2016 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](http://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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: LTE Client Sample ID: BH-3 @ 0.5'  
 Project: COPC SJ 29-6 #108M Collection Date: 12/2/2016 10:22:00 AM  
 Lab ID: 1612120-001 Matrix: SOIL Received Date: 12/3/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	120	9.3		mg/Kg	1	12/7/2016 5:43:08 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/7/2016 5:43:08 PM
Surr: DNOP	80.9	70-130		%Rec	1	12/7/2016 5:43:08 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: DJF
Benzene	ND	0.049		mg/Kg	2	12/6/2016 2:57:41 PM
Toluene	2.6	0.098		mg/Kg	2	12/6/2016 2:57:41 PM
Ethylbenzene	1.1	0.098		mg/Kg	2	12/6/2016 2:57:41 PM
Xylenes, Total	17	0.20		mg/Kg	2	12/6/2016 2:57:41 PM
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	2	12/6/2016 2:57:41 PM
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	2	12/6/2016 2:57:41 PM
Surr: Dibromofluoromethane	92.4	70-130		%Rec	2	12/6/2016 2:57:41 PM
Surr: Toluene-d8	96.0	70-130		%Rec	2	12/6/2016 2:57:41 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: DJF
Gasoline Range Organics (GRO)	400	9.8		mg/Kg	2	12/6/2016 2:57:41 PM
Surr: BFB	100	70-130		%Rec	2	12/6/2016 2:57:41 PM

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

<b>Qualifiers:</b> * 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
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Analytical Report

Lab Order 1612120

Date Reported: 12/8/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH-4 @ 0.5'

Project: COPC SJ 29-6 #108M

Collection Date: 12/2/2016 10:29:00 AM

Lab ID: 1612120-002

Matrix: SOIL

Received Date: 12/3/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/7/2016 6:04:53 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/7/2016 6:04:53 PM
Surr: DNOP	83.0	70-130		%Rec	1	12/7/2016 6:04:53 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	12/6/2016 1:31:18 PM
Toluene	ND	0.048		mg/Kg	1	12/6/2016 1:31:18 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/6/2016 1:31:18 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/6/2016 1:31:18 PM
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	12/6/2016 1:31:18 PM
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	12/6/2016 1:31:18 PM
Surr: Dibromofluoromethane	104	70-130		%Rec	1	12/6/2016 1:31:18 PM
Surr: Toluene-d8	98.7	70-130		%Rec	1	12/6/2016 1:31:18 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/6/2016 1:31:18 PM
Surr: BFB	95.7	70-130		%Rec	1	12/6/2016 1:31:18 PM

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

<b>Qualifiers:</b>	* 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#: 1612120

08-Dec-16

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID	<b>LCS-29025</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>29025</b>	RunNo:	<b>39208</b>					
Prep Date:	<b>12/6/2016</b>	Analysis Date:	<b>12/7/2016</b>	SeqNo:	<b>1227017</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.4	62.6	124			
Surr: DNOP	4.3		5.000		86.7	70	130			

Sample ID	<b>MB-29025</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>29025</b>	RunNo:	<b>39208</b>					
Prep Date:	<b>12/6/2016</b>	Analysis Date:	<b>12/7/2016</b>	SeqNo:	<b>1227018</b>	Units:	<b>mg/Kg</b>			
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	10		10.00		102	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#: 1612120

08-Dec-16

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID	<b>mb-29000</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>29000</b>	RunNo:	<b>39179</b>					
Prep Date:	<b>12/5/2016</b>	Analysis Date:	<b>12/6/2016</b>	SeqNo:	<b>1226570</b>	Units:	<b>mg/Kg</b>			
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: 1,2-Dichloroethane-d4	0.47		0.5000		94.4	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		86.1	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.2	70	130			
Surr: Toluene-d8	0.49		0.5000		97.2	70	130			

Sample ID	<b>ics-29000</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>29000</b>	RunNo:	<b>39179</b>					
Prep Date:	<b>12/5/2016</b>	Analysis Date:	<b>12/6/2016</b>	SeqNo:	<b>1226571</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	1.1	0.050	1.000	0	112	70	130			
Ethylbenzene	1.1	0.050	1.000	0	113	70	130			
Xylenes, Total	3.3	0.10	3.000	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.3	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.4	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.7	70	130			
Surr: Toluene-d8	0.50		0.5000		99.9	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#: 1612120

08-Dec-16

Client: LTE  
Project: COPC SJ 29-6 #108M

Sample ID	mb-29000	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	29000	RunNo:	39179					
Prep Date:	12/5/2016	Analysis Date:	12/6/2016	SeqNo:	1226728	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	470		500.0		93.5	70	130			

Sample ID	ics-29000	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	29000	RunNo:	39179					
Prep Date:	12/5/2016	Analysis Date:	12/6/2016	SeqNo:	1226729	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	118	62.9	123			
Surr: BFB	480		500.0		96.1	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 |

**Sample Log-In Check List**

Client Name: LTE

Work Order Number: 1612120

RcptNo: 1

Received by/date: LM 12/03/16

Logged By: Anne Thorne 12/3/2016 8:00:00 AM *Anne Thorne*

Completed By: Anne Thorne 12/5/2016 *Anne Thorne*

Reviewed By: *[Signature]* 12/05/16

**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	1.1	Good	Yes			





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

March 22, 2017

Emilee Skyles  
LTE  
2243 Main Ave Suite 3  
Durango, CO 81301  
TEL:  
FAX

RE: COPC SJ 29-6 #108M

OrderNo.: 1703926

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/17/2017 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](http://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: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 3:00:00 PM

Lab ID: 1703926-001

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/20/2017 1:39:59 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/20/2017 1:39:59 PM
Surr: DNOP	109	70-130		%Rec	1	3/20/2017 1:39:59 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2017 1:46:02 PM
Surr: BFB	67.0	54-150		%Rec	1	3/20/2017 1:46:02 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/20/2017 1:46:02 PM
Toluene	ND	0.048		mg/Kg	1	3/20/2017 1:46:02 PM
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2017 1:46:02 PM
Xylenes, Total	ND	0.096		mg/Kg	1	3/20/2017 1:46:02 PM
Surr: 4-Bromofluorobenzene	72.9	66.6-132		%Rec	1	3/20/2017 1:46:02 PM

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

<b>Qualifiers:</b>	* 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-2

Project: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 12:21:00 PM

Lab ID: 1703926-002

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/20/2017 2:02:38 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/20/2017 2:02:38 PM
Surr: DNOP	110	70-130		%Rec	1	3/20/2017 2:02:38 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	11	4.8		mg/Kg	1	3/20/2017 6:34:28 PM
Surr: BFB	120	54-150		%Rec	1	3/20/2017 6:34:28 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2017 6:34:28 PM
Toluene	ND	0.048		mg/Kg	1	3/20/2017 6:34:28 PM
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2017 6:34:28 PM
Xylenes, Total	0.18	0.096		mg/Kg	1	3/20/2017 6:34:28 PM
Surr: 4-Bromofluorobenzene	82.1	66.6-132		%Rec	1	3/20/2017 6:34:28 PM

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

<b>Qualifiers:</b>	*	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 1703926

Date Reported: 3/22/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-3

Project: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 2:05:00 PM

Lab ID: 1703926-003

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	650	9.3		mg/Kg	1	3/17/2017 10:01:22 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/17/2017 10:01:22 AM
Surr: DNOP	112	70-130		%Rec	1	3/17/2017 10:01:22 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4200	75		mg/Kg	20	3/17/2017 10:10:55 AM
Surr: BFB	248	54-150	S	%Rec	20	3/17/2017 10:10:55 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	5.2	0.37		mg/Kg	20	3/17/2017 10:10:55 AM
Toluene	130	7.5		mg/Kg	200	3/17/2017 11:03:27 AM
Ethylbenzene	18	0.75		mg/Kg	20	3/17/2017 10:10:55 AM
Xylenes, Total	250	15		mg/Kg	200	3/17/2017 11:03:27 AM
Surr: 4-Bromofluorobenzene	93.2	66.6-132		%Rec	20	3/17/2017 10:10:55 AM

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

<b>Qualifiers:</b>	*	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 1703926

Date Reported: 3/22/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-4

Project: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 3:10:00 PM

Lab ID: 1703926-004

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	55	9.8		mg/Kg	1	3/20/2017 2:24:53 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/20/2017 2:24:53 PM
Surr: DNOP	112	70-130		%Rec	1	3/20/2017 2:24:53 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	230	4.7		mg/Kg	1	3/20/2017 7:00:40 PM
Surr: BFB	246	54-150	S	%Rec	1	3/20/2017 7:00:40 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.13	0.024		mg/Kg	1	3/20/2017 7:00:40 PM
Toluene	4.1	0.047		mg/Kg	1	3/20/2017 7:00:40 PM
Ethylbenzene	0.93	0.047		mg/Kg	1	3/20/2017 7:00:40 PM
Xylenes, Total	9.7	0.095		mg/Kg	1	3/20/2017 7:00:40 PM
Surr: 4-Bromofluorobenzene	82.9	66.6-132		%Rec	1	3/20/2017 7:00:40 PM

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

<b>Qualifiers:</b>	* 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 1703926

Date Reported: 3/22/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-5

Project: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 3:15:00 PM

Lab ID: 1703926-005

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	870	9.2		mg/Kg	1	3/17/2017 10:23:03 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/17/2017 10:23:03 AM
Surr: DNOP	113	70-130		%Rec	1	3/17/2017 10:23:03 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4300	66		mg/Kg	20	3/17/2017 10:37:17 AM
Surr: BFB	278	54-150	S	%Rec	20	3/17/2017 10:37:17 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	7.4	0.33		mg/Kg	20	3/17/2017 10:37:17 AM
Toluene	100	6.6		mg/Kg	200	3/17/2017 11:29:41 AM
Ethylbenzene	19	0.66		mg/Kg	20	3/17/2017 10:37:17 AM
Xylenes, Total	230	13		mg/Kg	200	3/17/2017 11:29:41 AM
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	20	3/17/2017 10:37:17 AM

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

<b>Qualifiers:</b>	* 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-6

Project: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 3:21:00 PM

Lab ID: 1703926-006

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	740	9.4		mg/Kg	1	3/20/2017 2:47:13 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/20/2017 2:47:13 PM
Surr: DNOP	111	70-130		%Rec	1	3/20/2017 2:47:13 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	990	49		mg/Kg	10	3/21/2017 11:15:09 AM
Surr: BFB	235	54-150	S	%Rec	10	3/21/2017 11:15:09 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.44	0.024		mg/Kg	1	3/20/2017 7:53:01 PM
Toluene	9.7	0.49		mg/Kg	10	3/21/2017 11:15:09 AM
Ethylbenzene	2.7	0.049		mg/Kg	1	3/20/2017 7:53:01 PM
Xylenes, Total	39	0.98		mg/Kg	10	3/21/2017 11:15:09 AM
Surr: 4-Bromofluorobenzene	258	66.6-132	S	%Rec	1	3/20/2017 7:53:01 PM

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

<b>Qualifiers:</b>	* 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-7

Project: COPC SJ 29-6 #108M

Collection Date: 3/16/2017 2:16:00 PM

Lab ID: 1703926-007

Matrix: SOIL

Received Date: 3/17/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	55	9.1		mg/Kg	1	3/20/2017 3:09:23 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/20/2017 3:09:23 PM
Surr: DNOP	106	70-130		%Rec	1	3/20/2017 3:09:23 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	51	4.7		mg/Kg	1	3/20/2017 8:45:25 PM
Surr: BFB	375	54-150	S	%Rec	1	3/20/2017 8:45:25 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/20/2017 8:45:25 PM
Toluene	0.44	0.047		mg/Kg	1	3/20/2017 8:45:25 PM
Ethylbenzene	0.22	0.047		mg/Kg	1	3/20/2017 8:45:25 PM
Xylenes, Total	2.4	0.095		mg/Kg	1	3/20/2017 8:45:25 PM
Surr: 4-Bromofluorobenzene	85.5	66.6-132		%Rec	1	3/20/2017 8:45:25 PM

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

<b>Qualifiers:</b>	*	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#: 1703926

22-Mar-17

Client: LTE  
Project: COPC SJ 29-6 #108M

Sample ID	LCS-30749		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30749		RunNo:	41454				
Prep Date:	3/17/2017		Analysis Date:	3/17/2017		SeqNo:	1299717		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	48	10	50.00	0	95.6	63.8	116				
Surr: DNOP	4.9		5.000		97.6	70	130				

Sample ID	MB-30749		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30749		RunNo:	41454				
Prep Date:	3/17/2017		Analysis Date:	3/17/2017		SeqNo:	1299718		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	10		10.00		104	70	130				

Sample ID	LCS-30762		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30762		RunNo:	41496				
Prep Date:	3/17/2017		Analysis Date:	3/20/2017		SeqNo:	1301492		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	48	10	50.00	0	95.4	63.8	116				
Surr: DNOP	4.8		5.000		96.4	70	130				

Sample ID	MB-30762		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30762		RunNo:	41496				
Prep Date:	3/17/2017		Analysis Date:	3/20/2017		SeqNo:	1301493		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	10		10.00		105	70	130				

Sample ID	MB-30783		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30783		RunNo:	41527				
Prep Date:	3/20/2017		Analysis Date:	3/21/2017		SeqNo:	1302594		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	10		10.00		104	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#: 1703926

22-Mar-17

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID	LCS-30783	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30783	RunNo:	41527					
Prep Date:	3/20/2017	Analysis Date:	3/21/2017	SeqNo:	1302630	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		103	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#: 1703926  
 22-Mar-17

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID <b>MB-30725</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>30725</b>		RunNo: <b>41456</b>							
Prep Date: <b>3/16/2017</b>	Analysis Date: <b>3/17/2017</b>		SeqNo: <b>1300833</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	690		1000		68.6	54	150			

Sample ID <b>LCS-30725</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>30725</b>		RunNo: <b>41456</b>							
Prep Date: <b>3/16/2017</b>	Analysis Date: <b>3/17/2017</b>		SeqNo: <b>1300834</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	880		1000		88.2	54	150			

Sample ID <b>MB-30752</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>30752</b>		RunNo: <b>41507</b>							
Prep Date: <b>3/17/2017</b>	Analysis Date: <b>3/20/2017</b>		SeqNo: <b>1301576</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	700		1000		69.7	54	150			

Sample ID <b>LCS-30752</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>30752</b>		RunNo: <b>41507</b>							
Prep Date: <b>3/17/2017</b>	Analysis Date: <b>3/20/2017</b>		SeqNo: <b>1301577</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	830		1000		82.6	54	150			

Sample ID <b>1703926-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>SC-2</b>	Batch ID: <b>30752</b>		RunNo: <b>41507</b>							
Prep Date: <b>3/17/2017</b>	Analysis Date: <b>3/20/2017</b>		SeqNo: <b>1301582</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	42	4.9	24.68	10.59	129	61.3	150			
Surr: BFB	1400		987.2		142	54	150			

Sample ID <b>1703926-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>SC-2</b>	Batch ID: <b>30752</b>		RunNo: <b>41507</b>							
Prep Date: <b>3/17/2017</b>	Analysis Date: <b>3/20/2017</b>		SeqNo: <b>1301583</b>		Units: <b>mg/Kg</b>					
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
- 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#: 1703926

22-Mar-17

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID	1703926-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	30752	RunNo:	41507					
Prep Date:	3/17/2017	Analysis Date:	3/20/2017	SeqNo:	1301583	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	39	4.8	23.97	10.59	116	61.3	150	9.79	20	
Surr: BFB	1200		958.8		126	54	150	0	0	

Sample ID	MB-30782	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30782	RunNo:	41546					
Prep Date:	3/20/2017	Analysis Date:	3/21/2017	SeqNo:	1303073	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	740		1000		73.8	54	150			

Sample ID	LCS-30782	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30782	RunNo:	41546					
Prep Date:	3/20/2017	Analysis Date:	3/21/2017	SeqNo:	1303076	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.4	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
- 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#: 1703926

22-Mar-17

Client: LTE  
Project: COPC SJ 29-6 #108M

Sample ID	<b>MB-30725</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>				
Client ID:	<b>PBS</b>		Batch ID:	<b>30725</b>		RunNo:	<b>41456</b>				
Prep Date:	<b>3/16/2017</b>		Analysis Date:	<b>3/17/2017</b>		SeqNo:	<b>1300908</b>		Units: <b>mg/Kg</b>		
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	0.75		1.000		75.3	66.6	132				

Sample ID	<b>LCS-30725</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>				
Client ID:	<b>LCSS</b>		Batch ID:	<b>30725</b>		RunNo:	<b>41456</b>				
Prep Date:	<b>3/16/2017</b>		Analysis Date:	<b>3/17/2017</b>		SeqNo:	<b>1300909</b>		Units: <b>mg/Kg</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.96	0.025	1.000	0	95.9	80	120				
Toluene	0.97	0.050	1.000	0	96.7	80	120				
Ethylbenzene	0.95	0.050	1.000	0	94.6	80	120				
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120				
Surr: 4-Bromofluorobenzene	0.74		1.000		74.3	66.6	132				

Sample ID	<b>MB-30752</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>				
Client ID:	<b>PBS</b>		Batch ID:	<b>30752</b>		RunNo:	<b>41507</b>				
Prep Date:	<b>3/17/2017</b>		Analysis Date:	<b>3/20/2017</b>		SeqNo:	<b>1301599</b>		Units: <b>mg/Kg</b>		
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	0.76		1.000		76.3	66.6	132				

Sample ID	<b>LCS-30752</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>				
Client ID:	<b>LCSS</b>		Batch ID:	<b>30752</b>		RunNo:	<b>41507</b>				
Prep Date:	<b>3/17/2017</b>		Analysis Date:	<b>3/20/2017</b>		SeqNo:	<b>1301600</b>		Units: <b>mg/Kg</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.98	0.025	1.000	0	97.8	80	120				
Toluene	1.0	0.050	1.000	0	99.9	80	120				
Ethylbenzene	1.0	0.050	1.000	0	100	80	120				
Xylenes, Total	3.1	0.10	3.000	0	103	80	120				
Surr: 4-Bromofluorobenzene	0.85		1.000		85.4	66.6	132				

**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#: 1703926

22-Mar-17

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID	1703926-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	30752	RunNo:	41507					
Prep Date:	3/17/2017	Analysis Date:	3/20/2017	SeqNo:	1301602	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9560	0.007273	93.4	61.5	138			
Toluene	0.91	0.048	0.9560	0.007368	94.6	71.4	127			
Ethylbenzene	0.91	0.048	0.9560	0.006411	94.1	70.9	132			
Xylenes, Total	2.8	0.096	2.868	0	96.3	76.2	123			
Surr: 4-Bromofluorobenzene	0.79		0.9560		82.3	66.6	132			

Sample ID	1703926-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	30752	RunNo:	41507					
Prep Date:	3/17/2017	Analysis Date:	3/20/2017	SeqNo:	1301603	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.023	0.9302	0.007273	92.2	61.5	138	3.94	20	
Toluene	0.89	0.047	0.9302	0.007368	94.7	71.4	127	2.60	20	
Ethylbenzene	0.91	0.047	0.9302	0.006411	97.0	70.9	132	0.247	20	
Xylenes, Total	2.8	0.093	2.791	0	99.7	76.2	123	0.755	20	
Surr: 4-Bromofluorobenzene	0.81		0.9302		87.3	66.6	132	0	0	

Sample ID	MB-30782	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	30782	RunNo:	41546					
Prep Date:	3/20/2017	Analysis Date:	3/21/2017	SeqNo:	1303108	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.82		1.000		81.5	66.6	132			

Sample ID	LCS-30782	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	30782	RunNo:	41546					
Prep Date:	3/20/2017	Analysis Date:	3/21/2017	SeqNo:	1303109	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.74		1.000		74.4	66.6	132			

**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



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: 1703926

RcptNo: 1

Received by/date: LM 03/17/17

Logged By: Anne Thorne 3/17/2017 7:00:00 AM *Anne Thorne*

Completed By: Anne Thorne 3/17/2017 7:33:14 AM *Anne Thorne*

Reviewed By: *[Signature]*

### Chain of Custody

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

### Log In

- Was an attempt made to cool the samples? Yes  No  NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- Sample(s) in proper container(s)? Yes  No
- Sufficient sample volume for indicated test(s)? Yes  No
- Are samples (except VOA and ONG) properly preserved? Yes  No
- Was preservative added to bottles? Yes  No  NA
- VOA vials have zero headspace? Yes  No  No VOA Vials
- Were any sample containers received broken? Yes  No
- Does paperwork match bottle labels? Yes  No
- (Note discrepancies on chain of custody)
- Are matrices correctly identified on Chain of Custody? Yes  No
- Is it clear what analyses were requested? Yes  No
- Were all holding times able to be met? Yes  No
- (If no, notify customer for authorization.)

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

### Special Handling (if applicable)

- 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: \_\_\_\_\_

- Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			

# Chain-of-Custody Record

Client: LT Environmental

Mailing Address: 848 E. 2nd Ave  
Durango, CO 81301

Phone #: 970-385-1096

email or Fax #: emskyles@tenv.com

QA/QC Package: aw

Standard  Level 4 (Full Validation)

Accreditation

NELAP  Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time: SEE COMMENTS

Standard  Rush

Project Name: COPC SJ 29-6 #108M

Project #:

Project Manager: E. Skyles

Sampler: E. Skyles

Sample Temperature: 33



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MIRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
3/16/17	1500	Soil	SC-1	1-4oz	cool	701	X	X											
3/16/17	1221	Soil	SC-2	1-4oz	cool	702	X	X											
3/16/17	1405	Soil	SC-3	1-4oz Meatkit	cool MeOH	703	X	X											
3/16/17	1510	Soil	SC-4	1-4oz	cool	704	X	X											
3/16/17	1515	Soil	SC-5	1-4oz Meatkit	cool MeOH	705	X	X											
3/16/17	1521	Soil	SC-6	1-4oz	cool	706	X	X											
3/16/17	1416	Soil	SC-7	1-4oz	cool	707	X	X											

Date: 3/16/17	Time: 1804	Relinquished by: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Date: 3/16/17	Time: 1806	Remarks: Bill to ConocoPhillips WO# 21869433 Approver KAITLW Area 7 Super Erin Wyckoff
Date: 3/16/17	Time: 1844	Relinquished by: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Date: 03/17/17	Time: 0700	

SC-3 & SC-5 same day  
All others 3-day TAT

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: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 31, 2017

Emilee Skyles

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL:

FAX

RE: COPC SJ 29-6 #108M

OrderNo.: 1703E01

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/29/2017 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](http://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 white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1703E01

Date Reported: 3/31/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-8

Project: COPC SJ 29-6 #108M

Collection Date: 3/27/2017 12:36:00 PM

Lab ID: 1703E01-001

Matrix: SOIL

Received Date: 3/29/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/30/2017 8:52:48 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/30/2017 8:52:48 AM
Surr: DNOP	111	70-130		%Rec	1	3/30/2017 8:52:48 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/29/2017 1:45:48 PM
Surr: BFB	74.8	54-150		%Rec	1	3/29/2017 1:45:48 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/29/2017 1:45:48 PM
Toluene	ND	0.036		mg/Kg	1	3/29/2017 1:45:48 PM
Ethylbenzene	ND	0.036		mg/Kg	1	3/29/2017 1:45:48 PM
Xylenes, Total	ND	0.072		mg/Kg	1	3/29/2017 1:45:48 PM
Surr: 4-Bromofluorobenzene	83.6	66.6-132		%Rec	1	3/29/2017 1:45:48 PM

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

<b>Qualifiers:</b>	* 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 1703E01

Date Reported: 3/31/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SC-9

Project: COPC SJ 29-6 #108M

Collection Date: 3/28/2017 10:28:00 AM

Lab ID: 1703E01-002

Matrix: SOIL

Received Date: 3/29/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	11	9.9		mg/Kg	1	3/30/2017 9:14:45 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/30/2017 9:14:45 AM
Surr: DNOP	105	70-130		%Rec	1	3/30/2017 9:14:45 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	15	3.8		mg/Kg	1	3/29/2017 2:12:18 PM
Surr: BFB	147	54-150		%Rec	1	3/29/2017 2:12:18 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/29/2017 2:12:18 PM
Toluene	ND	0.038		mg/Kg	1	3/29/2017 2:12:18 PM
Ethylbenzene	0.052	0.038		mg/Kg	1	3/29/2017 2:12:18 PM
Xylenes, Total	0.24	0.075		mg/Kg	1	3/29/2017 2:12:18 PM
Surr: 4-Bromofluorobenzene	84.2	66.6-132		%Rec	1	3/29/2017 2:12:18 PM

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

<b>Qualifiers:</b>	* 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-10**Project:** COPC SJ 29-6 #108M**Collection Date:** 3/28/2017 10:35:00 AM**Lab ID:** 1703E01-003**Matrix:** SOIL**Received Date:** 3/29/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	12	10		mg/Kg	1	3/30/2017 9:36:34 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/30/2017 9:36:34 AM
Surr: DNOP	112	70-130		%Rec	1	3/30/2017 9:36:34 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	7.1	4.0		mg/Kg	1	3/29/2017 2:38:47 PM
Surr: BFB	134	54-150		%Rec	1	3/29/2017 2:38:47 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	3/29/2017 2:38:47 PM
Toluene	ND	0.040		mg/Kg	1	3/29/2017 2:38:47 PM
Ethylbenzene	ND	0.040		mg/Kg	1	3/29/2017 2:38:47 PM
Xylenes, Total	ND	0.079		mg/Kg	1	3/29/2017 2:38:47 PM
Surr: 4-Bromofluorobenzene	91.7	66.6-132		%Rec	1	3/29/2017 2:38:47 PM

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

<b>Qualifiers:</b>	* 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-11

Project: COPC SJ 29-6 #108M

Collection Date: 3/27/2017 12:25:00 PM

Lab ID: 1703E01-004

Matrix: SOIL

Received Date: 3/29/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/30/2017 9:58:35 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/30/2017 9:58:35 AM
Surr: DNOP	111	70-130		%Rec	1	3/30/2017 9:58:35 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/29/2017 3:05:04 PM
Surr: BFB	80.1	54-150		%Rec	1	3/29/2017 3:05:04 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	3/29/2017 3:05:04 PM
Toluene	ND	0.041		mg/Kg	1	3/29/2017 3:05:04 PM
Ethylbenzene	ND	0.041		mg/Kg	1	3/29/2017 3:05:04 PM
Xylenes, Total	ND	0.083		mg/Kg	1	3/29/2017 3:05:04 PM
Surr: 4-Bromofluorobenzene	88.8	66.6-132		%Rec	1	3/29/2017 3:05:04 PM

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

<b>Qualifiers:</b>	*	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-12

Project: COPC SJ 29-6 #108M

Collection Date: 3/28/2017 10:20:00 AM

Lab ID: 1703E01-005

Matrix: SOIL

Received Date: 3/29/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	120	9.4		mg/Kg	1	3/29/2017 8:55:20 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/29/2017 8:55:20 AM
Surr: DNOP	108	70-130		%Rec	1	3/29/2017 8:55:20 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	90	21		mg/Kg	5	3/29/2017 9:21:51 AM
Surr: BFB	216	54-150	S	%Rec	5	3/29/2017 9:21:51 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.10		mg/Kg	5	3/29/2017 9:21:51 AM
Toluene	0.33	0.21		mg/Kg	5	3/29/2017 9:21:51 AM
Ethylbenzene	0.45	0.21		mg/Kg	5	3/29/2017 9:21:51 AM
Xylenes, Total	5.0	0.41		mg/Kg	5	3/29/2017 9:21:51 AM
Surr: 4-Bromofluorobenzene	95.6	66.6-132		%Rec	5	3/29/2017 9:21:51 AM

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

<b>Qualifiers:</b>	* 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#: 1703E01  
31-Mar-17

Client: LTE  
Project: COPC SJ 29-6 #108M

Sample ID	LCS-30953		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30953		RunNo:	41718				
Prep Date:	3/29/2017		Analysis Date:	3/29/2017		SeqNo:	1309557		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.00	0	94.4	63.8	116				
Surr: DNOP	4.7		5.000		93.0	70	130				

Sample ID	MB-30953		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30953		RunNo:	41718				
Prep Date:	3/29/2017		Analysis Date:	3/29/2017		SeqNo:	1309558		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	11		10.00		105	70	130				

Sample ID	LCS-30959		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30959		RunNo:	41755				
Prep Date:	3/29/2017		Analysis Date:	3/30/2017		SeqNo:	1310572		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	63.8	116				
Surr: DNOP	5.0		5.000		101	70	130				

Sample ID	MB-30959		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30959		RunNo:	41755				
Prep Date:	3/29/2017		Analysis Date:	3/30/2017		SeqNo:	1310575		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	10		10.00		104	70	130				

Sample ID	LCS-30969		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30969		RunNo:	41755				
Prep Date:	3/29/2017		Analysis Date:	3/30/2017		SeqNo:	1311683		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	5.2		5.000		104	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#: 1703E01

31-Mar-17

Client: LTE  
Project: COPC SJ 29-6 #108M

Sample ID	MB-30969	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30969	RunNo:	41755					
Prep Date:	3/29/2017	Analysis Date:	3/30/2017	SeqNo:	1311684	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	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#: 1703E01  
 31-Mar-17

**Client:** LTE  
**Project:** COPC SJ 29-6 #108M

Sample ID <b>MB-30945</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>30945</b>	RunNo: <b>41734</b>								
Prep Date: <b>3/28/2017</b>	Analysis Date: <b>3/29/2017</b>	SeqNo: <b>1310271</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	670		1000		66.8	54	150			

Sample ID <b>LCS-30945</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>30945</b>	RunNo: <b>41734</b>								
Prep Date: <b>3/28/2017</b>	Analysis Date: <b>3/29/2017</b>	SeqNo: <b>1310272</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	76.4	125			
Surr: BFB	930		1000		92.9	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
- 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#: 1703E01

31-Mar-17

Client: LTE  
Project: COPC SJ 29-6 #108M

Sample ID	<b>MB-30945</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>30945</b>	RunNo:	<b>41734</b>					
Prep Date:	<b>3/28/2017</b>	Analysis Date:	<b>3/29/2017</b>	SeqNo:	<b>1310304</b>	Units:	<b>mg/Kg</b>			
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	0.73		1.000		73.1	66.6	132			

Sample ID	<b>LCS-30945</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>30945</b>	RunNo:	<b>41734</b>					
Prep Date:	<b>3/28/2017</b>	Analysis Date:	<b>3/29/2017</b>	SeqNo:	<b>1310305</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	0.81		1.000		80.8	66.6	132			

### 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



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: 1703E01

RcptNo: 1

Received by/date: AK 03/29/17

Logged By: Anne Thorne 3/29/2017 7:15:00 AM *Anne Thorne*

Completed By: Anne Thorne 3/29/2017 7:41:13 AM *Anne Thorne*

Reviewed By: *aj* 03/29/17

### 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			

# Chain-of-Custody Record

Turn-Around Time:

Standard  Rush *See Comments*



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: *LT Environmental, Inc*

Project Name: *COPC SJ 29-6 #108M*

Mailing Address: *848 E. 2nd Ave  
Durango CO 81301*

Project #:

Phone #: *970-385-1096*

Project Manager: *E. Skyles*

email or Fax#: *eskyles@ltenv.com*

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

Sampler: *ES*

Accreditation  
 NELAP  Other \_\_\_\_\_

Sample Temperature: *3*

EDD (Type) \_\_\_\_\_

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + TMS (8021)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<i>3/27/17</i>	<i>1236</i>	<i>Soil</i>	<i>SC-8</i>	<i>1-4oz MeOH Kit</i>	<i>Cool MeOH</i>	<i>701</i>	<i>X</i>	<i>X</i>										
<i>3/28/17</i>	<i>1028</i>	<i>Soil</i>	<i>SC-9</i>	<i>1-4oz MeOH Kit</i>	<i>Cool MeOH</i>	<i>702</i>	<i>X</i>	<i>X</i>										
<i>3/28/17</i>	<i>1035</i>	<i>Soil</i>	<i>SC-10</i>	<i>1-4oz MeOH Kit</i>	<i>Cool MeOH</i>	<i>703</i>	<i>X</i>	<i>X</i>										
<i>3/27/17</i>	<i>1225</i>	<i>Soil</i>	<i>SC-11</i>	<i>1-4oz MeOH Kit</i>	<i>Cool MeOH</i>	<i>704</i>	<i>X</i>	<i>X</i>										
<i>3/28/17</i>	<i>1020</i>	<i>Soil</i>	<i>SC-12</i>	<i>1-4oz MeOH Kit</i>	<i>Cool MeOH</i>	<i>705</i>	<i>X</i>	<i>X</i>										

Date: *28/17* Time: *1311* Relinquished by: *[Signature]*

Received by: *[Signature]* Date: *3/28/17* Time: *1311*

Remarks: *Bill to Conoco Phillips  
NO # 21869433  
ordered by: Lisa Hunter  
KATLW  
Super Erin Wyc. Koff*

Date: *3/28/17* Time: *1834* Relinquished by: *[Signature]*

Received by: *[Signature]* Date: *03/29/17* Time: *0715*

*SE-12 SAME  
SC-8 thru SC-11  
2 day TAT  
(next day)*

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.