

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 Company	Contact Lisa Hunter
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607
Facility Name: San Juan 27-5 137P	Facility Type: Gas
Surface Owner: BLM	Mineral Owner: SF-079391
API No. 3003929358	

LOCATION OF RELEASE

Unit Letter I	Section 18	Township 27N	Range 05W	Feet from the 2415'	North/South Line FSL	Feet from the 205	East/West Line FEL	County Rio Arriba
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Latitude **36.57363** Longitude **-107.39172**

NATURE OF RELEASE

Type of Release Hydrocarbon/Produced Water	Volume of Release 194 bbl/21 bbl	Volume Recovered 2500 c/yds
Source of Release Production Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 12/22/2015 9:40 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith (OCD) & Shari Ketcham (BLM)	
By Whom? Lindsay Dumas	Date and Hour 1/22/2015 4:15pm	
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.*


On 1/22/2015 at approximately 9:40 AM, MSO doing monthly tank gauging on production tank, discovered the tank empty. MSO notified Area Lead, who then contacted Area Superintendent, Environmental and Safety. Area Lead, Environmental Specialist, and Safety Specialist headed to location for verification. The MSO last gauged the tank 12/22/2014, the tank had 215 bbls of fluid. MSO was last on location on 1/12/2015 to complete an equipment walk around, no release detected. It has been determined that the release amount on this location is 194 bbls of condensate and 21 bbls of produced water. Investigation is ongoing.

Describe Area Affected and Cleanup Action Taken.*

Excavation was 25' x 75' x 10' Deep. Approximately 2500 c/yds of soil was excavated and treated ex-situ using a soil shredding method with a hydrogen peroxide solution. Treated soil meeting regulatory standards, was returned to the excavation as backfill. Analytical results were below the regulatory standards – no further action required. The closure report and laboratory analysis report are 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.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Lisa Hunter	Approval Date: 6/29/2017 Expiration Date:	
Title: Field Environmental Specialist	Conditions of Approval:	
E-mail Address: Lisa.Hunter@conocophillips.com	Attached <input type="checkbox"/>	
Date: 06/14/2017 Phone: (505) 258-1607		

* Attach Additional Sheets If Necessary

NCS1507242760

83



June 6, 2017

Ms. Lisa Hunter
Field Environmental Specialist
ConocoPhillips Company
3401 East 30th Street
Farmington, New Mexico 87401

RE: Remediation Activity Summary and Closure Request
San Juan 27-5 #137P
API # 30-039-29358
Case No. NCS1507242760
Rio Arriba County, New Mexico

Dear Ms. Hunter:

LT Environmental, Inc. (LTE), on behalf of ConocoPhillips Company (COPC), conducted environmental remediation of petroleum hydrocarbon impacted soil and confirmation soil sampling activities at the San Juan 27-5 #137P (Site) natural gas production well. The Site is located approximately 8 miles south of the intersection of United States Highway 64 and County Road 366 in Rio Arriba County, New Mexico. The legal site description is the northeast quarter of the southeast quarter of Section 18, Township 27 North, Range 15 West, New Mexico Principal Meridian (Figure 1). This correspondence describes successful soil remediation conducted from April 7 through April 18, 2017, and proposes site closure based on laboratory analytical results from confirmation soil sampling.

BACKGROUND

A release of approximately 194 barrels (bbls) of condensate and 21 bbls of produced water was discovered and reported to the New Mexico Oil Conservation Division (NMOCD) on January 22, 2015. COPC responded by delineating the vertical and horizontal extent of petroleum hydrocarbon impact around the production tank and below-grade tank (BGT) via subsurface investigations occurring on February 6, 2015, and July 7, 2016. The results of the investigations indicated approximately 1,340 cubic yards (yds³) of hydrocarbon impacted soil was overlain by approximately 215 yds³ of clean overburden ranging from 0 to 6 feet thick. Lithology consists of up to approximately 8.5 feet of silty to clayey sand underlain by a weathered sandstone.

Based on the extent of the estimated impact, COPC proposed *ex-situ* remediation utilizing soil shredding technology in a remediation work plan submitted to the NMOCD and Bureau of Land Management (BLM) dated October 17, 2016. The remediation scope of work included excavating clean overburden and impacted soil, separating clean soil from impacted soil, mechanically shredding the impacted soil and treating it through chemical oxidation with hydrogen peroxide, then backfilling the excavation with treated soil and original overburden. Based on the NMOCD site-ranking criteria determined for the site: (1) depth to water greater than 100 feet below ground surface (bgs); (2) no private, domestic, or water sources located within 1,000 feet; and (3) no surface water bodies located within 1,000 feet; the NMOCD remediation action levels for a site ranking of 0 are 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 5,000 mg/kg for total petroleum hydrocarbons (TPH).



EXCAVATION SAMPLING AND RESULTS

Remediation activities began on April 10, 2017, following the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, dated August 13, 1993. LTE provided a geologist trained in soil excavation to direct soil removal and segregation to preclude unnecessary soil removal using field screening methods such as a photo-ionization detector (PID) per industry-accepted NMOCD field vapor headspace analysis methods. Excavation activities concluded on April 20, 2017. The extent of the final excavation was 25 feet by 75 feet by 10 feet bgs and is depicted on Figure 2. COPC excavated and treated a total of approximately 2,500 yds³ of impacted soil.

LTE collected composite soil samples from the sidewalls and the floor of the excavation to confirm closure standards had been met. Confirmation soil samples were collected by LTE in the presence of one or more regulatory agencies. Confirmation soil samples were representative of the excavation, typically spaced at 25-foot centers along the sidewalls. Excavation floor samples were collected approximately one sample per 625 square feet. Sample locations and pertinent excavation information were mapped using a Trimble 6000 Series Global Positioning System (GPS) unit capable of sub-meter accuracy. Composite samples were collected by depositing five aliquots of soil into plastic bags, thoroughly mixing the contents, and sampling into pre-certified, laboratory supplied four-ounce glass jars. The samples were stored on ice and shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico, following strict chain-of-custody procedures. HEAL analyzed the soil samples for BTEX per United States Environmental Protection Agency (EPA) Method 8021, as well as TPH-gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) by EPA Method 8015. Sample locations are depicted on Figure 2, and the laboratory analytical results are summarized in Table 1. The complete laboratory reports are included in Attachment 1. Laboratory analytical results indicated all excavation confirmation samples were compliant with NMOCD action levels for all contaminants of concern.

SOIL TREATMENT

Impacted soil removed from the excavation was processed through a shading bucket attached to an excavator to macerate (shred) the soil into a uniform soil size. A hydrogen peroxide solution ranging from 1 percent (%) to 7% hydrogen peroxide by weight in water was applied with multiple spray nozzles to the soil on a conveyor belt. The treated soil was stockpiled on site and left to rest for at least 24 hours to allow the hydrogen peroxide to continue oxidizing the hydrocarbons. The treated soil was stockpiled in 100-yd³ intervals until successful remediation was proven and documented up to 1,000 yds³ in cumulative volume, and then in 500-yd³ stockpiles. The stockpiles of impacted soil were bermed with clean fill to prevent potential impacts from migrating offsite due to stormwater runoff.

LTE collected composite soil samples at a rate of one 5-point composite sample per 100 yds³ of treated soil for the first 1,000 yds³, and then approximately one 5-point composite sample per 115 yds³ of treated soil for the remainder of the excavation. The composite-treated confirmation samples were collected in laboratory-provided sample containers, placed on ice, and sent to HEAL under chain-of-custody protocol for analysis of BTEX by EPA Method 8021 and TPH- GRO, DRO, and MRO by EPA Method 8015.

If treated soil did not meet applicable remediation action levels, it was retreated or allowed more time to oxidize before resampling. Once final soil analytical results indicated excavation confirmation soil



samples and treated soil samples met the applicable remediation action levels stated above, LTE returned the treated soil to the excavation for use as backfill. Table 2 summarizes the results for 29 treatment confirmation samples.

On May 1, 2017, the soil beneath the area where impacted soil was stockpiled was sampled upon completion of all remediation activities. The top 0 to 6 inches of the vadose zone beneath the areas where impacted material was stockpiled was segregated into two areas. Composite soil samples were collected from each representative area. The composite soil samples were delivered to HEAL for analysis of BTEX by EPA Method 8021 and TPH-GRO, DRO, and MRO by EPA Method 8015. Representative areas are depicted on Figure 3, and the analytical results are summarized in Table 3. Laboratory analytical results indicated that BTEX and TPH concentrations detected in the vadose zone were compliant with NMOCD action levels.

CONCLUSIONS

COPC successfully removed and treated soil impacted by petroleum hydrocarbons from beneath a former production tank and BGT. Approximately 2,500 yds³ of impacted soil were removed from the excavation and treated via *ex-situ* mechanical shredding and chemical oxidation. Excavation confirmation sampling analytical results indicated impacted soil and bedrock exceeding the NMOCD recommended remediation action levels were removed for chemical treatment. Laboratory analytical results of TPH concentrations in treated soil confirmed oxidation of petroleum hydrocarbons had occurred and had subsequently reduced TPH concentrations to compliance with the NMOCD action levels. Laboratory analytical results of soil beneath the stockpiled soil indicated compliance with NMOCD action levels. The excavation was backfilled to the existing grade using the remediated soil. Based on the results presented in this report, LTE recommends COPC request no further action at the Site and final closure status from the applicable regulatory agencies.

LTE appreciates the opportunity to provide environmental services to COPC. Please call us at 970-385-1096 if you have any questions or comments regarding this report.

Sincerely,
LT ENVIRONMENTAL, INC.

Daniel Burns
Project Manager

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

Attachments:

Figure 1 – Site Location Map

Figure 2 – Site Map

Figure 3 – Stockpile Vadose Zone Soil Sample Locations and Results

Table 1 – Laboratory Analytical Results - Excavation Confirmation Soil Samples

Table 2 – Laboratory Analytical Results - Treatment Soil Samples

Table 3 – Laboratory Analytical Results - Stockpile Vadose Zone Soil Samples

Attachment 1 – Laboratory Analytical Reports

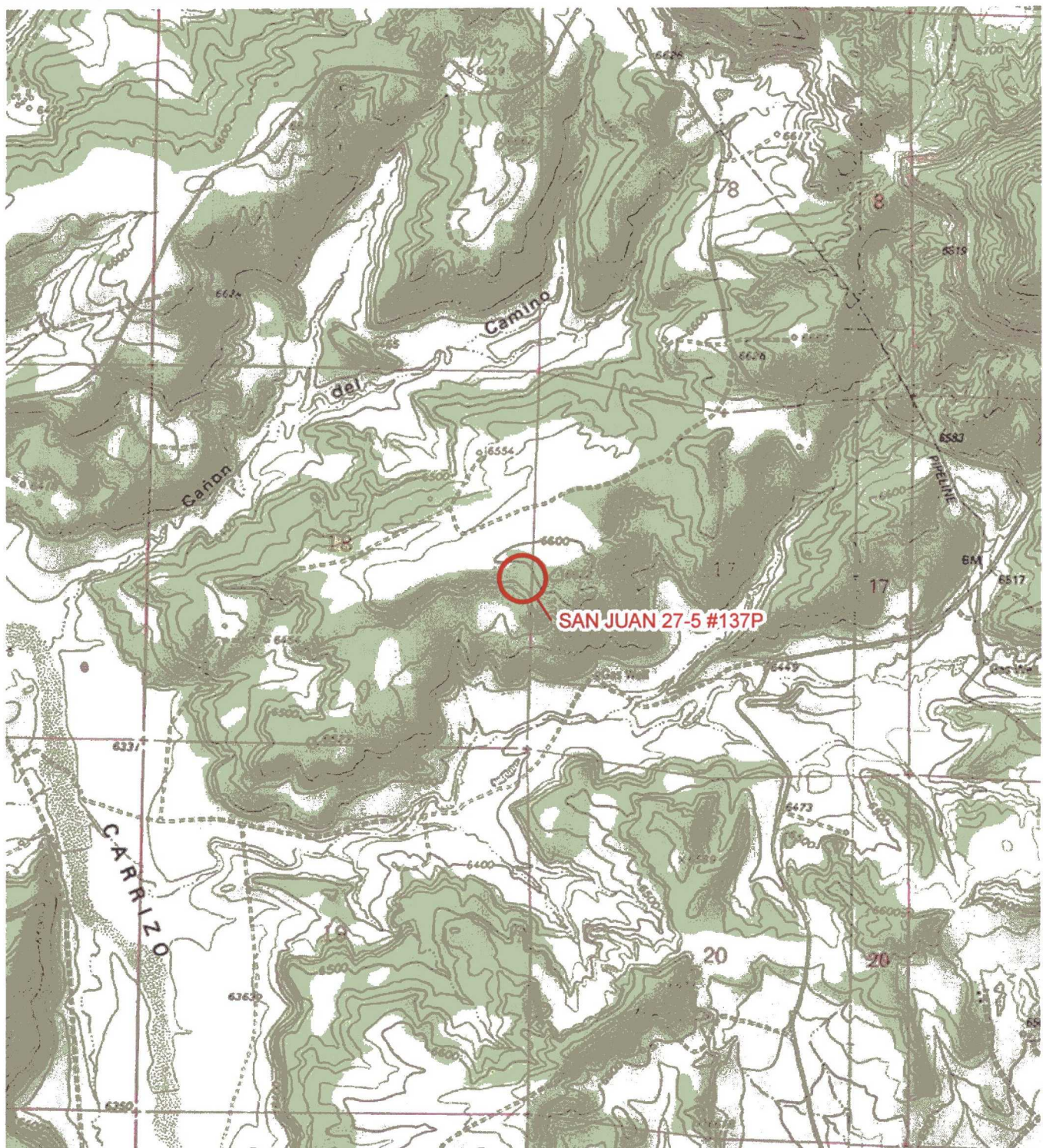
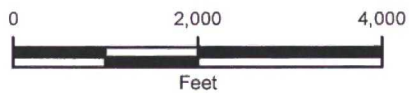


IMAGE COURTESY OF ESRI/USGS

LEGEND

 SITE LOCATION

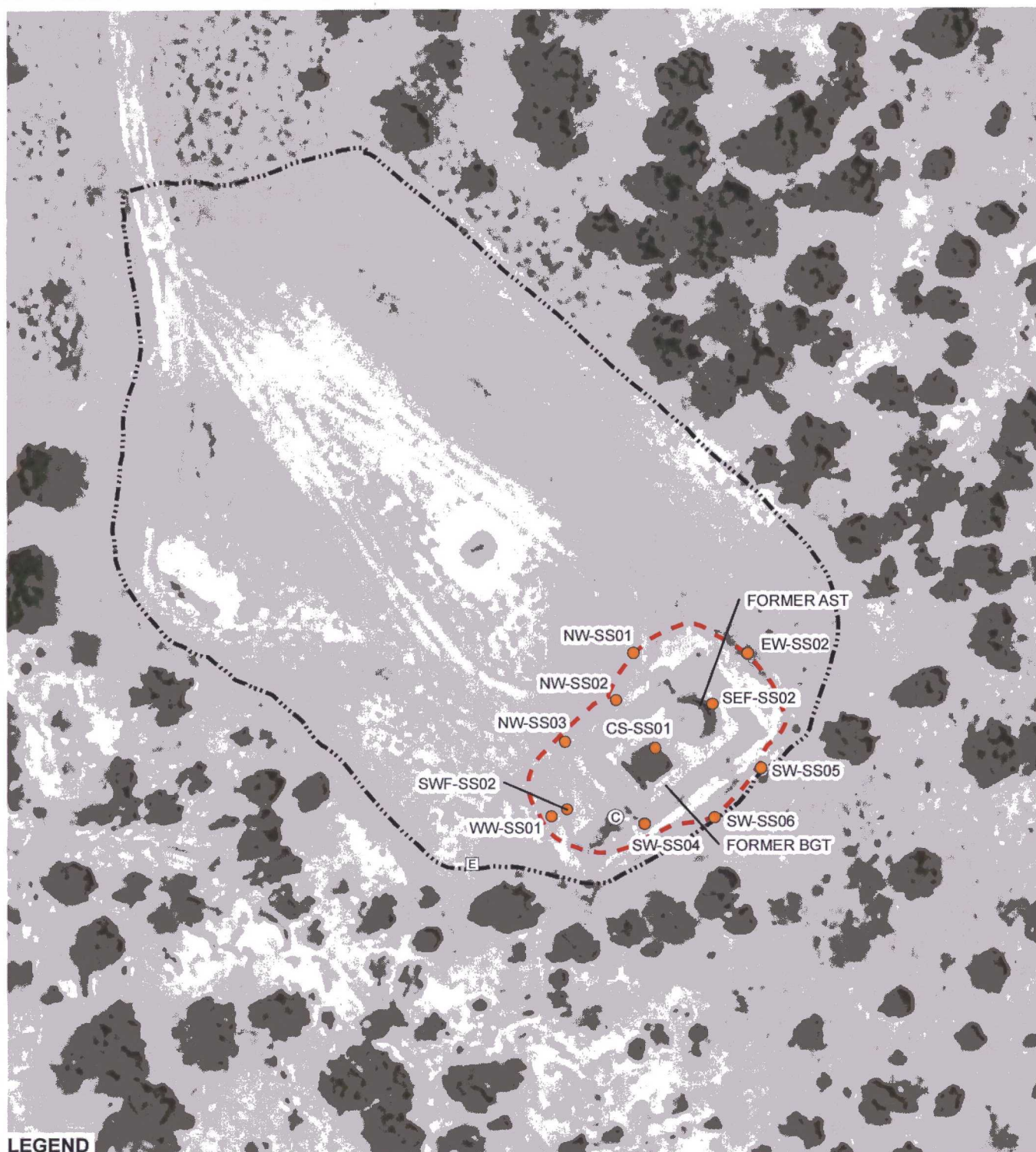


NEW MEXICO

FIGURE 1
SITE LOCATION MAP
SAN JUAN 27-5 #137P
RIO ARRIBA COUNTY, NEW MEXICO

CONOCOPHILLIPS





LEGEND

- SOIL SAMPLE
- Ⓒ COMPRESSOR
- Ⓔ ELECTRIC BOX

- CURRENT SITE BOUNDARY
- - - EXCAVATION EXTENT

AST: ABOVEGROUND STORAGE TANK
BGT: BELOW GRADE TANK

IMAGE COURTESY OF ESRI

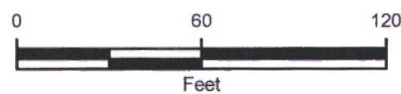
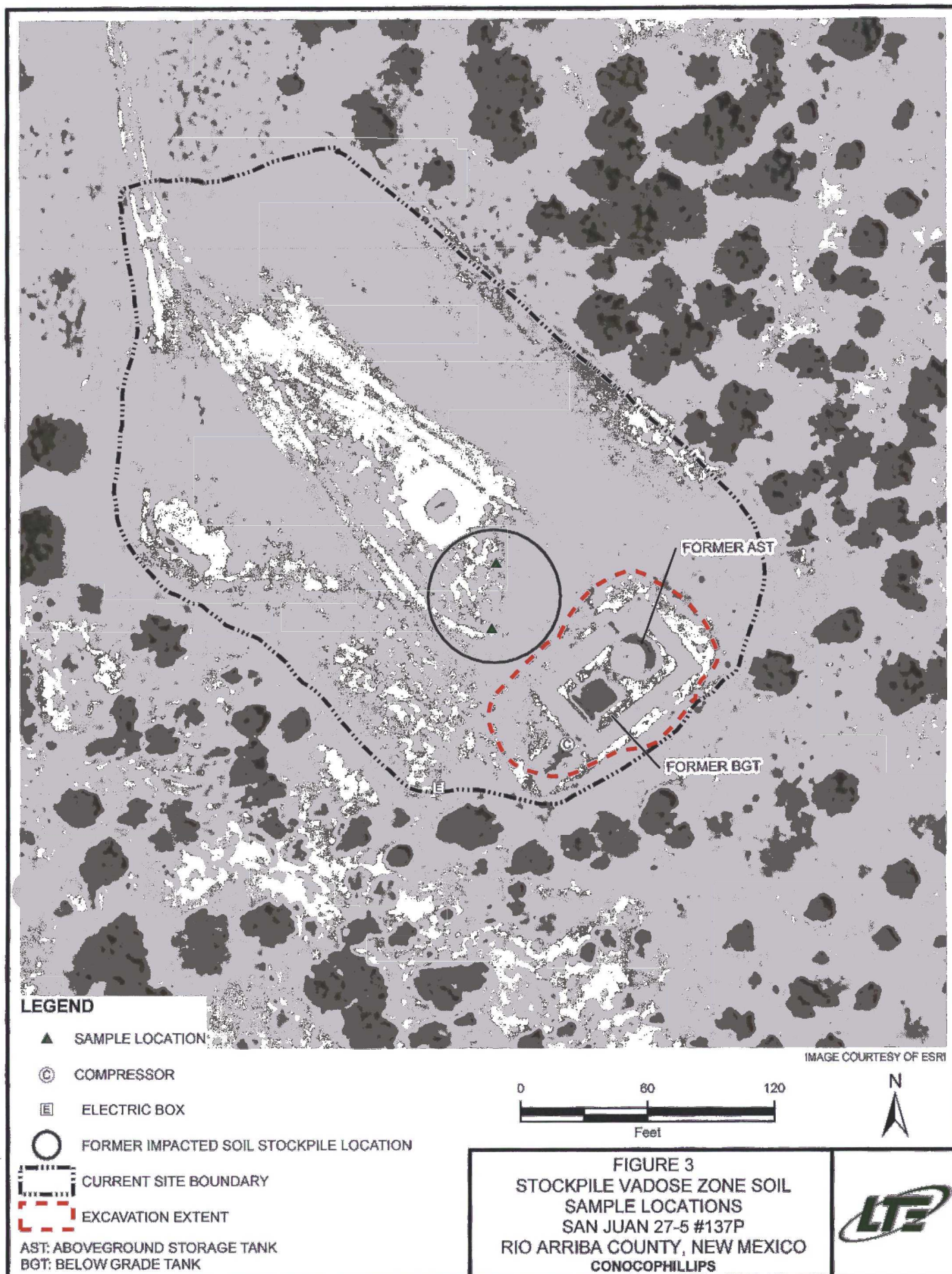


FIGURE 2
SITE MAP
SAN JUAN 27-5 #137P
RIO ARriba COUNTY, NEW MEXICO

CONOCOPHILLIPS





TABLES

TABLE 1
LABORATORY ANALYTICAL RESULTS - EXCAVATION CONFIRMATION SOIL SAMPLES

SAN JUAN 27-5 #137P
RIO ARriba COUNTY, NEW MEXICO
CONOCOPHILLIPS

Soil Sample ID	Sample Date	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)
NW-SS01	4/10/2017	1,113	0.16	3.8	1.5	17	22.46	320	350	<48	670
EW-SS02	4/17/2017	609.3	0.15	2.6	0.53	10	13.28	260	120	<47	380
SEF-SS02	4/17/2017	387.2	<0.021	<0.041	<0.041	0.14	0.14	4.6	<9.7	<48	4.6
SW-SS04	4/17/2017	1,040	0.51	5.8	1.2	20	27.51	920	290	<46	1,210
NW-SS02	4/17/2017	1,289	0.024	0.42	0.097	2.8	3.341	180	300	<50	480
NW-SS03	4/17/2017	197.3	<0.023	<0.045	<0.045	1.7	1.7	480	130	<46	610
CF-SS01	4/17/2017	101	<0.021	<0.042	<0.042	0.085	0.085	<4.2	530	<50	530
WW-SS01	4/17/2017	366.7	<0.019	<0.038	<0.038	0.84	0.84	150	42	<46	192
SW-SS05	4/20/2017	1,508	0.44	7.0	1.4	22	30.84	650	870	<500	1,520
SW-SS06	4/20/2017	1,761	<0.094	1.0	0.64	12	13.64	520	340	<490	860
SWF-SS02	4/20/2017	1,670	<0.095	3.4	2.2	40	45.6	1,100	580	<510	1,680
NMOCD Action Level			10	NE	NE	NE	50	NE	NE	NE	5,000

NOTES:

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes analyzed by EPA method 8021
DRO - diesel range organics analyzed by EPA Modified Method 8015
GRO - gasoline range organics analyzed by EPA Modified Method 8015
mg/kg - milligrams per kilogram
MRO - motor oil range organics analyzed by EPA Modified Method 8015
NE - not established
NMOCD - New Mexico Oil Conservation Division
ppm - parts per million, measured by photo-ionization detector (PID)
TPH - total petroleum hydrocarbons
< - indicates result is less than the stated laboratory reporting limit



TABLE 2
LABORATORY ANALYTICAL RESULTS - TREATMENT SOIL SAMPLES
SAN JUAN 27-5 #137P
RIO ARriba COUNTY, NEW MEXICO
CONOCOPHILLIPS

Soil Sample ID	Sample Date	Approximate Volume (yds ³)	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	PASS / FAIL (P/F)
TSP-01	4/17/2017	0-100	1,442	<0.088	3.5	1.3	42	46.8	1,000	240	<47	1,240	P
TSP-02	4/17/2017	100-200	1,293	<0.083	6.4	2.4	61	69.8	1,300	750	<48	2,050	F
TSP-12	4/20/2017	100-200	745.9	<0.086	0.65	0.34	38	38.99	1,000	460	<500	1,460	P
TSP-03	4/17/2017	200-300	1,458	<0.094	3.9	1.4	48	53.3	1,200	520	<47	1,720	F
TSP-14	4/20/2017	200-300	987.2	<0.089	0.68	0.34	36	37.02	960	470	<480	1,430	P
TSP-04	4/17/2017	300-400	1,049	<0.079	2.9	1.2	36	40.1	850	420	<49	1,270	P
TSP-05	4/17/2017	400-500	720.3	<0.088	3.1	1.2	37	41.3	950	450	<47	1,400	P
TSP-06	4/17/2017	500-600	838.6	<0.093	3.2	1.1	50	54.3	1,100	520	<49	1,620	F
TSP-11	4/20/2017	500-600	649.9	<0.092	0.69	0.41	40	41.1	1,100	410	<500	1,510	P
TSP-07	4/17/2017	600-700	1,101	<0.088	3.4	1.2	51	55.6	1,200	610	<47	1,810	F
TSP-13	4/20/2017	600-700	1,050	<0.094	0.36	0.19	28	28.55	920	450	<490	1,370	P
TSP-08	4/17/2017	700-800	1,239	<0.082	4.4	1.6	58	64.0	1,200	670	<47	1,870	F
TSP-15	4/20/2017	700-800	1,200	<0.093	0.77	0.40	28	29.17	830	400	<470	1,230	P
TSP-09	4/17/2017	800-900	872.2	<0.094	4.2	1.5	55	60.7	1,200	490	<47	1,690	F
TSP-16	4/20/2017	800-900	1,051	<0.090	<0.18	<0.18	14	14	590	690	<500	1,280	P
TSP-10	4/17/2017	900-1,000	427.3	<0.018	1.2	0.47	28	29.67	530	470	<50	1,000	P
TSP-17	4/20/2017	1,000-1,150	689.4	<0.092	<0.18	<0.18	4.1	4.1	300	99	<460	399	P
TSP-18	4/20/2017	1,150-1,300	604.2	<0.087	0.19	<0.17	6.5	6.69	340	200	<480	540	P
TSP-19	4/20/2017	1,300-1,400	702.8	<0.083	<0.17	<0.17	6.2	6.2	380	250	<480	630	P
TSP-20	4/20/2017	1,400-1,500	657.7	<0.10	<0.20	<0.20	6.0	6.0	1,100	210	<490	1,310	P
TSP-21	4/20/2017	1,500-1,600	542.2	<0.087	0.18	<0.17	8.2	8.38	980	260	<480	1,240	P
TSP-22	4/20/2017	1,600-1,700	530.0	<0.090	<0.18	<0.18	5.2	5.2	1,000	230	<480	1,230	P
TSP-23	4/20/2017	1,700-1,800	525.5	<0.10	0.55	0.27	12	12.82	1,300	220	<470	1,520	P
TSP-24	4/20/2017	1,800-1,900	572.0	<0.096	<0.19	<0.19	7.7	7.7	1,000	170	<490	1,170	P
TSP-25	4/20/2017	1,900-2,000	410.4	<0.080	0.76	0.42	14	15.18	990	160	<480	1,150	P
TSP-26	4/20/2017	2,000-2,100	698.4	<0.089	0.38	0.25	11	11.63	1,100	150	<49	1,250	P
TSP-27	4/20/2017	2,100-2,200	663.2	<0.093	0.35	0.24	8.0	8.59	1,000	130	<510	1,130	P
TSP-28	4/20/2017	2,200-2,300	654.0	<0.087	0.17	0.17	1.9	2.24	490	130	<500	620	P
TSP-29	4/20/2017	2,300-2,500	354.5	<0.088	<0.18	<0.18	1.2	1.2	400	140	<500	540	P
NMOCD Action Level				10	NE	NE	NE	50	NE	NE	NE	5,000	

NOTES:

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes analyzed by EPA method 8021

DRO - diesel range organics analyzed by EPA Modified Method 8015

GRO - gasoline range organics analyzed by EPA Modified Method 8015

mg/kg - milligrams per kilogram

MRO - motor oil range organics analyzed by EPA Modified Method 8015

NE - not established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million, measured by photo-ionization detector (PID)

TPH - total petroleum hydrocarbons

yds³ - cubic yards

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

BOLD indicates result exceeds applicable standard



TABLE 3
LABORATORY ANALYTICAL RESULTS - STOCKPILE VADOSE ZONE SOIL SAMPLES
SAN JUAN 27-5 #137P
RIO ARriba COUNTY, NEW MEXICO
CONOCOPHILLIPS

Soil Sample ID	Sample Date	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)
North Vadose	5/1/2017	487.4	<0.024	<0.048	<0.048	<0.096	<0.216	5.4	110	<47	115.4
South Vadose	5/1/2017	7.4	<0.024	<0.048	<0.048	2.0	2.0	65	22	<47	87
NMOCD Action Level			10	NE	NE	NE	50	NE	NE	NE	5,000

NOTES:

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes analyzed by EPA method 8021

DRO - diesel range organics analyzed by EPA Modified Method 8015

GRO - gasoline range organics analyzed by EPA Modified Method 8015

mg/kg - milligrams per kilogram

MRO - motor oil range organics analyzed by EPA Modified Method 8015

NE - not established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million, measured by photo-ionization detector (PID)

TPH - total petroleum hydrocarbons

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

BOLD indicates result exceeds applicable standard

ATTACHMENT 1
LABORATORY ANALYTICAL REPORTS





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

April 19, 2017

Danny Burns
Conoco Phillips
PO Box 4289
Farmington, NM 87499
TEL: (505) 326-9782
FAX

RE: San Juan 27-5 137P

OrderNo.: 1704732

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 20 sample(s) on 4/18/2017 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

Analytical Report

Lab Order 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-01

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:20:00 PM

Lab ID: 1704732-001

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	240	9.3		mg/Kg	1	4/18/2017 9:04:26 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 9:04:26 AM
Surr: DNOP	107	70-130		%Rec	1	4/18/2017 9:04:26 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.088		mg/Kg	5	4/18/2017 10:38:15 AM
Toluene	3.5	0.18		mg/Kg	5	4/18/2017 10:38:15 AM
Ethylbenzene	1.3	0.18		mg/Kg	5	4/18/2017 10:38:15 AM
Xylenes, Total	42	0.35		mg/Kg	5	4/18/2017 10:38:15 AM
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	5	4/18/2017 10:38:15 AM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	5	4/18/2017 10:38:15 AM
Surr: Dibromofluoromethane	92.0	70-130		%Rec	5	4/18/2017 10:38:15 AM
Surr: Toluene-d8	98.8	70-130		%Rec	5	4/18/2017 10:38:15 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1000	18		mg/Kg	5	4/18/2017 10:38:15 AM
Surr: BFB	112	70-130		%Rec	5	4/18/2017 10:38:15 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-02

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:22:00 PM

Lab ID: 1704732-002

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	750	9.6		mg/Kg	1	4/18/2017 9:28:32 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/18/2017 9:28:32 AM
Surr: DNOP	106	70-130		%Rec	1	4/18/2017 9:28:32 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.083		mg/Kg	5	4/18/2017 11:06:53 AM
Toluene	6.4	0.17		mg/Kg	5	4/18/2017 11:06:53 AM
Ethylbenzene	2.4	0.17		mg/Kg	5	4/18/2017 11:06:53 AM
Xylenes, Total	63	3.3		mg/Kg	50	4/19/2017 5:16:31 AM
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%Rec	5	4/18/2017 11:06:53 AM
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	5	4/18/2017 11:06:53 AM
Surr: Dibromofluoromethane	83.6	70-130		%Rec	5	4/18/2017 11:06:53 AM
Surr: Toluene-d8	98.4	70-130		%Rec	5	4/18/2017 11:06:53 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1900	170		mg/Kg	50	4/19/2017 5:16:31 AM
Surr: BFB	105	70-130		%Rec	50	4/19/2017 5:16:31 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-03

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:24:00 PM

Lab ID: 1704732-003

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	520	9.4		mg/Kg	1	4/18/2017 9:54:37 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 9:54:37 AM
Surr: DNOP	89.7	70-130		%Rec	1	4/18/2017 9:54:37 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.094		mg/Kg	5	4/18/2017 11:35:29 AM
Toluene	3.9	0.19		mg/Kg	5	4/18/2017 11:35:29 AM
Ethylbenzene	1.4	0.19		mg/Kg	5	4/18/2017 11:35:29 AM
Xylenes, Total	50	3.8		mg/Kg	50	4/19/2017 5:44:58 AM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	5	4/18/2017 11:35:29 AM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	5	4/18/2017 11:35:29 AM
Surr: Dibromofluoromethane	85.5	70-130		%Rec	5	4/18/2017 11:35:29 AM
Surr: Toluene-d8	99.0	70-130		%Rec	5	4/18/2017 11:35:29 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1200	19		mg/Kg	5	4/18/2017 11:35:29 AM
Surr: BFB	111	70-130		%Rec	5	4/18/2017 11:35:29 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-04

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:26:00 PM

Lab ID: 1704732-004

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	420	9.8		mg/Kg	1	4/18/2017 10:22:31 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/18/2017 10:22:31 AM
Surr: DNOP	86.2	70-130		%Rec	1	4/18/2017 10:22:31 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.079		mg/Kg	5	4/18/2017 12:33:02 PM
Toluene	2.9	0.16		mg/Kg	5	4/18/2017 12:33:02 PM
Ethylbenzene	1.2	0.16		mg/Kg	5	4/18/2017 12:33:02 PM
Xylenes, Total	36	0.32		mg/Kg	5	4/18/2017 12:33:02 PM
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%Rec	5	4/18/2017 12:33:02 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	5	4/18/2017 12:33:02 PM
Surr: Dibromofluoromethane	89.2	70-130		%Rec	5	4/18/2017 12:33:02 PM
Surr: Toluene-d8	97.3	70-130		%Rec	5	4/18/2017 12:33:02 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	850	16		mg/Kg	5	4/18/2017 12:33:02 PM
Surr: BFB	109	70-130		%Rec	5	4/18/2017 12:33:02 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-05

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:28:00 PM

Lab ID: 1704732-005

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	450	9.4		mg/Kg	1	4/18/2017 10:50:34 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 10:50:34 AM
Surr: DNOP	95.0	70-130		%Rec	1	4/18/2017 10:50:34 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.088		mg/Kg	5	4/18/2017 1:01:54 PM
Toluene	3.1	0.18		mg/Kg	5	4/18/2017 1:01:54 PM
Ethylbenzene	1.2	0.18		mg/Kg	5	4/18/2017 1:01:54 PM
Xylenes, Total	37	0.35		mg/Kg	5	4/18/2017 1:01:54 PM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	5	4/18/2017 1:01:54 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	5	4/18/2017 1:01:54 PM
Surr: Dibromofluoromethane	89.3	70-130		%Rec	5	4/18/2017 1:01:54 PM
Surr: Toluene-d8	98.2	70-130		%Rec	5	4/18/2017 1:01:54 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	950	18		mg/Kg	5	4/18/2017 1:01:54 PM
Surr: BFB	121	70-130		%Rec	5	4/18/2017 1:01:54 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-06

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:30:00 PM

Lab ID: 1704732-006

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	520	9.8		mg/Kg	1	4/18/2017 11:56:03 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/18/2017 11:56:03 AM
Surr: DNOP	97.6	70-130		%Rec	1	4/18/2017 11:56:03 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.093		mg/Kg	5	4/18/2017 1:30:35 PM
Toluene	3.2	0.19		mg/Kg	5	4/18/2017 1:30:35 PM
Ethylbenzene	1.1	0.19		mg/Kg	5	4/18/2017 1:30:35 PM
Xylenes, Total	53	3.7		mg/Kg	50	4/19/2017 6:13:46 AM
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%Rec	5	4/18/2017 1:30:35 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	4/18/2017 1:30:35 PM
Surr: Dibromofluoromethane	88.7	70-130		%Rec	5	4/18/2017 1:30:35 PM
Surr: Toluene-d8	99.4	70-130		%Rec	5	4/18/2017 1:30:35 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1100	19		mg/Kg	5	4/18/2017 1:30:35 PM
Surr: BFB	124	70-130		%Rec	5	4/18/2017 1:30:35 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-07

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:32:00 PM

Lab ID: 1704732-007

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	610	9.3		mg/Kg	1	4/18/2017 12:21:03 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 12:21:03 PM
Surr: DNOP	90.1	70-130		%Rec	1	4/18/2017 12:21:03 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.088		mg/Kg	5	4/18/2017 1:59:15 PM
Toluene	3.4	0.18		mg/Kg	5	4/18/2017 1:59:15 PM
Ethylbenzene	1.2	0.18		mg/Kg	5	4/18/2017 1:59:15 PM
Xylenes, Total	56	3.5		mg/Kg	50	4/19/2017 6:42:30 AM
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%Rec	5	4/18/2017 1:59:15 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	4/18/2017 1:59:15 PM
Surr: Dibromofluoromethane	86.4	70-130		%Rec	5	4/18/2017 1:59:15 PM
Surr: Toluene-d8	97.3	70-130		%Rec	5	4/18/2017 1:59:15 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1200	18		mg/Kg	5	4/18/2017 1:59:15 PM
Surr: BFB	109	70-130		%Rec	5	4/18/2017 1:59:15 PM

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.**Analytical Report**

Lab Order 1704732

Date Reported: 4/19/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-08**Project:** San Juan 27-5 137P**Collection Date:** 4/17/2017 1:34:00 PM**Lab ID:** 1704732-008**Matrix:** MEOH (SOIL)**Received Date:** 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	670	9.4		mg/Kg	1	4/18/2017 12:45:50 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 12:45:50 PM
Surr: DNOP	89.0	70-130		%Rec	1	4/18/2017 12:45:50 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.082		mg/Kg	5	4/18/2017 2:28:10 PM
Toluene	4.4	0.16		mg/Kg	5	4/18/2017 2:28:10 PM
Ethylbenzene	1.6	0.16		mg/Kg	5	4/18/2017 2:28:10 PM
Xylenes, Total	61	3.3		mg/Kg	50	4/19/2017 7:10:55 AM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	5	4/18/2017 2:28:10 PM
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	5	4/18/2017 2:28:10 PM
Surr: Dibromofluoromethane	86.5	70-130		%Rec	5	4/18/2017 2:28:10 PM
Surr: Toluene-d8	101	70-130		%Rec	5	4/18/2017 2:28:10 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1200	16		mg/Kg	5	4/18/2017 2:28:10 PM
Surr: BFB	129	70-130		%Rec	5	4/18/2017 2:28:10 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Conoco Phillips**Client Sample ID:** TSP-09**Project:** San Juan 27-5 137P**Collection Date:** 4/17/2017 1:36:00 PM**Lab ID:** 1704732-009**Matrix:** MEOH (SOIL)**Received Date:** 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	490	9.4		mg/Kg	1	4/18/2017 3:15:09 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 3:15:09 PM
Surr: DNOP	88.2	70-130		%Rec	1	4/18/2017 3:15:09 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.094		mg/Kg	5	4/18/2017 2:56:54 PM
Toluene	4.2	0.19		mg/Kg	5	4/18/2017 2:56:54 PM
Ethylbenzene	1.5	0.19		mg/Kg	5	4/18/2017 2:56:54 PM
Xylenes, Total	60	3.7		mg/Kg	50	4/19/2017 7:39:31 AM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%Rec	5	4/18/2017 2:56:54 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	4/18/2017 2:56:54 PM
Surr: Dibromofluoromethane	88.4	70-130		%Rec	5	4/18/2017 2:56:54 PM
Surr: Toluene-d8	95.2	70-130		%Rec	5	4/18/2017 2:56:54 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	1200	19		mg/Kg	5	4/18/2017 2:56:54 PM
Surr: BFB	108	70-130		%Rec	5	4/18/2017 2:56:54 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-10

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:38:00 PM

Lab ID: 1704732-010

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	470	10		mg/Kg	1	4/18/2017 2:00:26 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/18/2017 2:00:26 PM
Surr: DNOP	91.7	70-130		%Rec	1	4/18/2017 2:00:26 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.018		mg/Kg	1	4/18/2017 3:25:43 PM
Toluene	1.2	0.036		mg/Kg	1	4/18/2017 3:25:43 PM
Ethylbenzene	0.47	0.036		mg/Kg	1	4/18/2017 3:25:43 PM
Xylenes, Total	31	0.71		mg/Kg	10	4/19/2017 8:07:58 AM
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	4/18/2017 3:25:43 PM
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	4/18/2017 3:25:43 PM
Surr: Dibromofluoromethane	77.9	70-130		%Rec	1	4/18/2017 3:25:43 PM
Surr: Toluene-d8	102	70-130		%Rec	1	4/18/2017 3:25:43 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	850	36		mg/Kg	10	4/19/2017 8:07:58 AM
Surr: BFB	102	70-130		%Rec	10	4/19/2017 8:07:58 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: EW-SS02

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:58:00 PM

Lab ID: 1704732-011

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	120	9.5		mg/Kg	1	4/18/2017 2:25:13 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/18/2017 2:25:13 PM
Surr: DNOP	90.0	70-130		%Rec	1	4/18/2017 2:25:13 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	0.16	0.095		mg/Kg	5	4/19/2017 8:36:39 AM
Toluene	2.7	0.19		mg/Kg	5	4/19/2017 8:36:39 AM
Ethylbenzene	0.52	0.19		mg/Kg	5	4/19/2017 8:36:39 AM
Xylenes, Total	10	0.38		mg/Kg	5	4/19/2017 8:36:39 AM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%Rec	5	4/19/2017 8:36:39 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	5	4/19/2017 8:36:39 AM
Surr: Dibromofluoromethane	92.2	70-130		%Rec	5	4/19/2017 8:36:39 AM
Surr: Toluene-d8	98.4	70-130		%Rec	5	4/19/2017 8:36:39 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	260	3.8		mg/Kg	1	4/18/2017 3:54:23 PM
Surr: BFB	108	70-130		%Rec	1	4/18/2017 3:54:23 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: SW-SS02

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:56:00 PM

Lab ID: 1704732-012

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	1300	95		mg/Kg	10	4/18/2017 4:30:18 PM
Motor Oil Range Organics (MRO)	ND	470		mg/Kg	10	4/18/2017 4:30:18 PM
Surr: DNOP	0	70-130	S	%Rec	10	4/18/2017 4:30:18 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	1.0	0.43		mg/Kg	20	4/18/2017 8:12:37 PM
Toluene	32	0.87		mg/Kg	20	4/18/2017 8:12:37 PM
Ethylbenzene	8.2	0.87		mg/Kg	20	4/18/2017 8:12:37 PM
Xylenes, Total	140	1.7		mg/Kg	20	4/18/2017 8:12:37 PM
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%Rec	20	4/18/2017 8:12:37 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	20	4/18/2017 8:12:37 PM
Surr: Dibromofluoromethane	86.8	70-130		%Rec	20	4/18/2017 8:12:37 PM
Surr: Toluene-d8	95.5	70-130		%Rec	20	4/18/2017 8:12:37 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	3100	87		mg/Kg	20	4/18/2017 8:12:37 PM
Surr: BFB	105	70-130		%Rec	20	4/18/2017 8:12:37 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: SEF-SS02

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:54:00 PM

Lab ID: 1704732-013

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/18/2017 3:40:09 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/18/2017 3:40:09 PM
Surr: DNOP	86.1	70-130		%Rec	1	4/18/2017 3:40:09 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.021		mg/Kg	1	4/18/2017 8:41:10 PM
Toluene	ND	0.041		mg/Kg	1	4/18/2017 8:41:10 PM
Ethylbenzene	ND	0.041		mg/Kg	1	4/18/2017 8:41:10 PM
Xylenes, Total	ND	0.082		mg/Kg	1	4/18/2017 8:41:10 PM
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%Rec	1	4/18/2017 8:41:10 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	4/18/2017 8:41:10 PM
Surr: Dibromofluoromethane	95.0	70-130		%Rec	1	4/18/2017 8:41:10 PM
Surr: Toluene-d8	98.2	70-130		%Rec	1	4/18/2017 8:41:10 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/19/2017 9:05:39 AM
Surr: BFB	104	70-130		%Rec	1	4/19/2017 9:05:39 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: SW-SS03

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:52:00 PM

Lab ID: 1704732-014

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	1500	100		mg/Kg	10	4/18/2017 4:31:28 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/18/2017 4:31:28 PM
Surr: DNOP	0	70-130	S	%Rec	10	4/18/2017 4:31:28 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	1.2	0.40		mg/Kg	20	4/18/2017 9:09:41 PM
Toluene	50	0.80		mg/Kg	20	4/18/2017 9:09:41 PM
Ethylbenzene	14	0.80		mg/Kg	20	4/18/2017 9:09:41 PM
Xylenes, Total	210	8.0		mg/Kg	100	4/19/2017 9:34:11 AM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%Rec	20	4/18/2017 9:09:41 PM
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	20	4/18/2017 9:09:41 PM
Surr: Dibromofluoromethane	85.8	70-130		%Rec	20	4/18/2017 9:09:41 PM
Surr: Toluene-d8	97.2	70-130		%Rec	20	4/18/2017 9:09:41 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	3900	80		mg/Kg	20	4/18/2017 9:09:41 PM
Surr: BFB	104	70-130		%Rec	20	4/18/2017 9:09:41 PM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: SW-SS04

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:44:00 PM

Lab ID: 1704732-015

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	290	9.2		mg/Kg	1	4/18/2017 4:02:35 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/18/2017 4:02:35 PM
Surr: DNOP	85.7	70-130		%Rec	1	4/18/2017 4:02:35 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	0.42	0.11		mg/Kg	5	4/19/2017 12:30:03 AM
Toluene	6.3	0.23		mg/Kg	5	4/19/2017 12:30:03 AM
Ethylbenzene	1.3	0.23		mg/Kg	5	4/19/2017 12:30:03 AM
Xylenes, Total	21	0.46		mg/Kg	5	4/19/2017 12:30:03 AM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	5	4/19/2017 12:30:03 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	5	4/19/2017 12:30:03 AM
Surr: Dibromofluoromethane	88.4	70-130		%Rec	5	4/19/2017 12:30:03 AM
Surr: Toluene-d8	99.1	70-130		%Rec	5	4/19/2017 12:30:03 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	480	23		mg/Kg	5	4/19/2017 12:30:03 AM
Surr: BFB	109	70-130		%Rec	5	4/19/2017 12:30:03 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: NW-SS02

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:00:00 PM

Lab ID: 1704732-016

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	300	9.9		mg/Kg	1	4/18/2017 3:34:04 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/18/2017 3:34:04 PM
Surr: DNOP	84.1	70-130		%Rec	1	4/18/2017 3:34:04 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.096		mg/Kg	5	4/19/2017 12:58:57 AM
Toluene	2.4	0.19		mg/Kg	5	4/19/2017 12:58:57 AM
Ethylbenzene	0.54	0.19		mg/Kg	5	4/19/2017 12:58:57 AM
Xylenes, Total	16	0.38		mg/Kg	5	4/19/2017 12:58:57 AM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%Rec	5	4/19/2017 12:58:57 AM
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	5	4/19/2017 12:58:57 AM
Surr: Dibromofluoromethane	89.8	70-130		%Rec	5	4/19/2017 12:58:57 AM
Surr: Toluene-d8	99.3	70-130		%Rec	5	4/19/2017 12:58:57 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	440	19		mg/Kg	5	4/19/2017 12:58:57 AM
Surr: BFB	103	70-130		%Rec	5	4/19/2017 12:58:57 AM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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.**Analytical Report**

Lab Order 1704732

Date Reported: 4/19/2017

CLIENT: Conoco Phillips**Client Sample ID:** NW-SS03**Project:** San Juan 27-5 137P**Collection Date:** 4/17/2017 12:48:00 PM**Lab ID:** 1704732-017**Matrix:** MEOH (SOIL)**Received Date:** 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	130	9.2		mg/Kg	1	4/18/2017 3:05:47 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/18/2017 3:05:47 PM
Surr: DNOP	87.0	70-130		%Rec	1	4/18/2017 3:05:47 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.11		mg/Kg	5	4/19/2017 1:27:52 AM
Toluene	ND	0.23		mg/Kg	5	4/19/2017 1:27:52 AM
Ethylbenzene	ND	0.23		mg/Kg	5	4/19/2017 1:27:52 AM
Xylenes, Total	2.0	0.45		mg/Kg	5	4/19/2017 1:27:52 AM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	5	4/19/2017 1:27:52 AM
Surr: 4-Bromofluorobenzene	94.5	70-130		%Rec	5	4/19/2017 1:27:52 AM
Surr: Dibromofluoromethane	95.1	70-130		%Rec	5	4/19/2017 1:27:52 AM
Surr: Toluene-d8	99.4	70-130		%Rec	5	4/19/2017 1:27:52 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	240	23		mg/Kg	5	4/19/2017 1:27:52 AM
Surr: BFB	106	70-130		%Rec	5	4/19/2017 1:27:52 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: SWF-SS01

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:46:00 PM

Lab ID: 1704732-018

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/18/2017 2:37:25 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/18/2017 2:37:25 PM
Surr: DNOP	84.3	70-130		%Rec	1	4/18/2017 2:37:25 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	0.49	0.39		mg/Kg	20	4/19/2017 1:56:31 AM
Toluene	19	0.78		mg/Kg	20	4/19/2017 1:56:31 AM
Ethylbenzene	5.5	0.78		mg/Kg	20	4/19/2017 1:56:31 AM
Xylenes, Total	90	1.6		mg/Kg	20	4/19/2017 1:56:31 AM
Surr: 1,2-Dichloroethane-d4	89.2	70-130		%Rec	20	4/19/2017 1:56:31 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	20	4/19/2017 1:56:31 AM
Surr: Dibromofluoromethane	89.1	70-130		%Rec	20	4/19/2017 1:56:31 AM
Surr: Toluene-d8	102	70-130		%Rec	20	4/19/2017 1:56:31 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	2000	78		mg/Kg	20	4/19/2017 1:56:31 AM
Surr: BFB	109	70-130		%Rec	20	4/19/2017 1:56:31 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: CF-SS01

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 1:02:00 PM

Lab ID: 1704732-019

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	530	9.9		mg/Kg	1	4/18/2017 2:09:08 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/18/2017 2:09:08 PM
Surr: DNOP	87.2	70-130		%Rec	1	4/18/2017 2:09:08 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.021		mg/Kg	1	4/19/2017 2:25:09 AM
Toluene	ND	0.042		mg/Kg	1	4/19/2017 2:25:09 AM
Ethylbenzene	ND	0.042		mg/Kg	1	4/19/2017 2:25:09 AM
Xylenes, Total	ND	0.084		mg/Kg	1	4/19/2017 2:25:09 AM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	4/19/2017 2:25:09 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/19/2017 2:25:09 AM
Surr: Dibromofluoromethane	97.9	70-130		%Rec	1	4/19/2017 2:25:09 AM
Surr: Toluene-d8	98.3	70-130		%Rec	1	4/19/2017 2:25:09 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	4/19/2017 2:25:09 AM
Surr: BFB	106	70-130		%Rec	1	4/19/2017 2:25:09 AM

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 1704732

Date Reported: 4/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: WW-SS01

Project: San Juan 27-5 137P

Collection Date: 4/17/2017 12:50:00 PM

Lab ID: 1704732-020

Matrix: MEOH (SOIL)

Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	42	9.1		mg/Kg	1	4/18/2017 1:40:35 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/18/2017 1:40:35 PM
Surr: DNOP	87.5	70-130		%Rec	1	4/18/2017 1:40:35 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.094		mg/Kg	5	4/19/2017 2:53:41 AM
Toluene	ND	0.19		mg/Kg	5	4/19/2017 2:53:41 AM
Ethylbenzene	ND	0.19		mg/Kg	5	4/19/2017 2:53:41 AM
Xylenes, Total	0.99	0.38		mg/Kg	5	4/19/2017 2:53:41 AM
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	5	4/19/2017 2:53:41 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	5	4/19/2017 2:53:41 AM
Surr: Dibromofluoromethane	99.1	70-130		%Rec	5	4/19/2017 2:53:41 AM
Surr: Toluene-d8	98.8	70-130		%Rec	5	4/19/2017 2:53:41 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	78	19		mg/Kg	5	4/19/2017 2:53:41 AM
Surr: BFB	107	70-130		%Rec	5	4/19/2017 2:53:41 AM

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#: 1704732

19-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	MB-31240	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31240	RunNo:	42155					
Prep Date:	4/14/2017	Analysis Date:	4/17/2017	SeqNo:	1324298	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		87.0	70	130			

Sample ID	LCS-31286	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31286	RunNo:	42155					
Prep Date:	4/18/2017	Analysis Date:	4/18/2017	SeqNo:	1324867	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.4	63.8	116			
Surr: DNOP	4.3		5.000		85.2	70	130			

Sample ID	MB-31286	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31286	RunNo:	42155					
Prep Date:	4/18/2017	Analysis Date:	4/18/2017	SeqNo:	1324868	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		102	70	130			

Sample ID	LCS-31287	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31287	RunNo:	42181					
Prep Date:	4/18/2017	Analysis Date:	4/18/2017	SeqNo:	1325111	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.4	70	130			

Sample ID	MB-31287	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31287	RunNo:	42181					
Prep Date:	4/18/2017	Analysis Date:	4/18/2017	SeqNo:	1325112	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		85.2	70	130			

Sample ID	1704732-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-01	Batch ID:	31286	RunNo:	42155					
Prep Date:	4/18/2017	Analysis Date:	4/18/2017	SeqNo:	1325888	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	530	9.8	48.88	240.6	587	51.6	130			S
Surr: DNOP	4.0		4.888		81.2	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#: 1704732

19-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	1704732-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-01	Batch ID:	31286	RunNo:	42155					
Prep Date:	4/18/2017	Analysis Date:	4/18/2017	SeqNo:	1325889	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	610	9.9	49.55	240.6	754	51.6	130	15.2	20	S
Surr: DNOP	3.9		4.955		79.3	70	130	0	0	

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#: 1704732

19-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	A42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326107	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: 1,2-Dichloroethane-d4	0.49		0.5000		98.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		97.0	70	130			
Surr: Toluene-d8	0.49		0.5000		98.6	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	A42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326108	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.2	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.8	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.5	70	130			
Surr: Toluene-d8	0.49		0.5000		98.6	70	130			

Sample ID	1704732-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	TSP-01	Batch ID:	A42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326109	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.3	0.088	3.534	0.02760	92.5	61.9	146			
Toluene	7.1	0.18	3.534	3.549	100	70	130			
Surr: 1,2-Dichloroethane-d4	1.7		1.767		93.8	70	130			
Surr: 4-Bromofluorobenzene	1.7		1.767		98.0	70	130			
Surr: Dibromofluoromethane	1.6		1.767		88.3	70	130			
Surr: Toluene-d8	1.6		1.767		93.4	70	130			

Sample ID	1704732-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	TSP-01	Batch ID:	A42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326118	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.2	0.088	3.534	0.02760	91.1	61.9	146	1.47	20	
Toluene	7.0	0.18	3.534	3.549	98.2	70	130	0.968	20	

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#: 1704732

19-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	1704732-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	TSP-01	Batch ID:	A42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326118	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	1.6		1.767		93.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	1.7		1.767		98.3	70	130	0	0	
Surr: Dibromofluoromethane	1.6		1.767		88.3	70	130	0	0	
Surr: Toluene-d8	1.7		1.767		95.4	70	130	0	0	

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	B42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326211	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: 1,2-Dichloroethane-d4	0.45		0.5000		90.7	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.0	70	130			
Surr: Toluene-d8	0.49		0.5000		98.5	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	B42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326212	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	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.4	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.0	70	130			
Surr: Toluene-d8	0.48		0.5000		97.0	70	130			

Sample ID	1704732-020ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	WW-SS01	Batch ID:	B42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326214	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.5	0.094	3.770	0	93.8	61.9	146			
Toluene	3.6	0.19	3.770	0.01001	96.2	70	130			
Surr: 1,2-Dichloroethane-d4	1.8		1.885		94.2	70	130			
Surr: 4-Bromofluorobenzene	1.8		1.885		98.0	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#: 1704732

19-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	1704732-020ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	WW-SS01	Batch ID:	B42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326214	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.7		1.885		90.6	70	130			
Surr: Toluene-d8	1.8		1.885		97.1	70	130			

Sample ID	1704732-020amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	WW-SS01	Batch ID:	B42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326215	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.5	0.094	3.770	0	93.2	61.9	146	0.693	20	
Toluene	3.5	0.19	3.770	0.01001	92.9	70	130	3.51	20	
Surr: 1,2-Dichloroethane-d4	1.9		1.885		98.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	1.8		1.885		96.9	70	130	0	0	
Surr: Dibromofluoromethane	1.8		1.885		95.8	70	130	0	0	
Surr: Toluene-d8	1.8		1.885		96.4	70	130	0	0	

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#: 1704732

19-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	C42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326220	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	520		500.0		104	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	C42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326221	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	70	130			
Surr: BFB	540		500.0		108	70	130			

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	D42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326241	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	520		500.0		104	70	130			

Sample ID	2.5ug gro lcs2	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	D42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/18/2017	SeqNo:	1326242	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	520		500.0		105	70	130			

Sample ID	1704732-020ams g	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	WW-SS01	Batch ID:	D42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326244	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	170	19	94.26	78.16	94.8	63.2	128			
Surr: BFB	2000		1885		105	70	130			

Sample ID	1704732-020amsd g	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	WW-SS01	Batch ID:	D42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326245	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1704732

19-Apr-17

Client: Conoco Phillips

Project: San Juan 27-5 137P

Sample ID	1704732-020amsd g	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	WW-SS01	Batch ID:	D42189	RunNo:	42189					
Prep Date:		Analysis Date:	4/19/2017	SeqNo:	1326245	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	160	19	94.26	78.16	83.8	63.2	128	6.39	20	
Surr: BFB	2000		1885		107	70	130	0	0	

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: Conoco Phillips Farmingt

Work Order Number: 1704732

RcptNo: 1

Received By: Lindsay Mangin

4/18/2017 6:48:00 AM

Completed By: Lindsay Mangin

4/18/2017 7:07:46 AM

Reviewed By: ENM

04/18/17

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 $>0^{\circ}\text{C}$ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: Conoco Phillips
Lisa Hunter
 Mailing Address: 5525 US Hwy 64
Farmington, NM 87401
 Phone #: 505-285-1607
 email or Fax#: lisa.hunter@conocophillips.com
 QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
 Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Sameday
 Project Name: San Juan 27-5137P
 Project #: App/PO: KATLM
WO# 22041790
 Project Manager: Danny Burns
 Sampler: Josh Adams
 On Ice: ☒ Yes ☐ No
 Sample Temperature: 1.7



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 + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/ORO/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)	Air Bubbles (Y or N)
4-17-17	1320	soil	TSP-01	(2) 402	cool	-001	X	X	X									
	1322		TSP-02			-002	X	X	X									
	1324		TSP-03			-003	X	X	X									
	1326		TSP-04			-004	X	X	X									
	1328		TSP-05			-005	X	X	X									
	1330		TSP-06			-006	X	X	X									
	1332		TSP-07			-007	X	X	X									
	1334		TSP-08			-008	X	X	X									
	1336		TSP-09			-009	X	X	X									
	1338		TSP-10			-010	X	X	X									
	1258		EW-SS02			-011	X	X	X									
	1256		SW-SS02			-012	X	X	X									

Date: 4/17/17 Time: 1530 Relinquished by: [Signature]
 Date: 4/17/17 Time: 2020 Relinquished by: [Signature]
 Received by: [Signature] Date: 4/17/17 Time: 1530
 Received by: [Signature] Date: 04/18/17 Time: 0608

Remarks: CC: lisa
aagere@ltenv.com
dburns@ltenv.com
j.adams@ltenv.com

Chain-of-Custody Record

Turn-Around Time:

Client: Conoco Phillips
Lisa Hunter
Mailing Address: 5525 US Hwy 64
Farmington, NM 87401
Phone #: 505-258-1607
email or Fax#: lsahunter@conocophillips.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

☐ Standard ☒ Rush Someday
Project Name: San Juan 27-5 137 P
Project #: APP/PO: KAITLM
WO# 22041790
Project Manager: Danny Burns
Sampler: Josh Adams
On Ice: ☒ Yes ☐ No
Sample Temperature: 17



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.	<div>MX BTEX + MT</div>	BTEX + MT	TPH 8015B	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)	Air Bubbles (Y or N)	
4-17-17		soil				17041732	<div>MX BTEX + MT</div>												
4-17-17	1254	soil	SEF-SS02	2) 402	cool	-013	X		X										
	1252		SW-SS02			-014	X		X										
	1244		SW-SS04			-015	X		X										
	1300		NW-SS02			-016	X		X										
	1248		NW-SS03			-017	X		X										
	1246		SWF-SS01			-018	X		X										
	1302		CF-SS01			-019	X		X										
	1250		WW-SS01			-020													

Date: 4-17-17 Time: 1530 Relinquished by: Josh Adams
Received by: Christina Wachs Date: 4/17/17 Time: 1530
Date: 4/17/17 Time: 2020 Relinquished by: Christina Wachs
Received by: [Signature] Date: 04/18/17 Time: 0648

Remarks: cc: lisa
quagere@henv.com
dburns@henv.com
jadams@henv.com

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

April 26, 2017

Danny Burns
Conoco Phillips
5525 Hwy 64 (3401 E. 30th St)
Farmington, NM 87402
TEL: (505) 320-0699
FAX

RE: San Juan 27-5 137P

OrderNo.: 1704960

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 22 sample(s) on 4/21/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** SW-SS05**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:42:00 PM**Lab ID:** 1704960-001**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	650	17		mg/Kg	5	4/24/2017 2:28:21 PM	C42325
Surr: BFB	117	70-130		%Rec	5	4/24/2017 2:28:21 PM	C42325
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	870	100		mg/Kg	10	4/21/2017 10:15:05 AM	31359
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/21/2017 10:15:05 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 10:15:05 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	0.44	0.086		mg/Kg	5	4/24/2017 2:28:21 PM	B42325
Toluene	7.0	0.17		mg/Kg	5	4/24/2017 2:28:21 PM	B42325
Ethylbenzene	1.4	0.17		mg/Kg	5	4/24/2017 2:28:21 PM	B42325
Xylenes, Total	22	0.34		mg/Kg	5	4/24/2017 2:28:21 PM	B42325
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	5	4/24/2017 2:28:21 PM	B42325
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	5	4/24/2017 2:28:21 PM	B42325
Surr: Dibromofluoromethane	91.1	70-130		%Rec	5	4/24/2017 2:28:21 PM	B42325
Surr: Toluene-d8	97.1	70-130		%Rec	5	4/24/2017 2:28:21 PM	B42325

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** SW-SS06**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:44:00 PM**Lab ID:** 1704960-002**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	520	19		mg/Kg	5	4/24/2017 2:57:08 PM	C42325
Surr: BFB	117	70-130		%Rec	5	4/24/2017 2:57:08 PM	C42325
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	340	98		mg/Kg	10	4/21/2017 9:50:50 AM	31359
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	4/21/2017 9:50:50 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 9:50:50 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.094		mg/Kg	5	4/24/2017 2:57:08 PM	B42325
Toluene	1.0	0.19		mg/Kg	5	4/24/2017 2:57:08 PM	B42325
Ethylbenzene	0.64	0.19		mg/Kg	5	4/24/2017 2:57:08 PM	B42325
Xylenes, Total	12	0.38		mg/Kg	5	4/24/2017 2:57:08 PM	B42325
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%Rec	5	4/24/2017 2:57:08 PM	B42325
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	5	4/24/2017 2:57:08 PM	B42325
Surr: Dibromofluoromethane	98.6	70-130		%Rec	5	4/24/2017 2:57:08 PM	B42325
Surr: Toluene-d8	96.4	70-130		%Rec	5	4/24/2017 2:57:08 PM	B42325

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-11**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:00:00 PM**Lab ID:** 1704960-003**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	1100	18		mg/Kg	5	4/21/2017 11:34:39 AM	D42279
Surr: BFB	115	70-130		%Rec	5	4/21/2017 11:34:39 AM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	410	100		mg/Kg	10	4/21/2017 10:18:25 AM	31359
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/21/2017 10:18:25 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 10:18:25 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.092		mg/Kg	5	4/21/2017 11:34:39 AM	A42279
Toluene	0.69	0.18		mg/Kg	5	4/21/2017 11:34:39 AM	A42279
Ethylbenzene	0.41	0.18		mg/Kg	5	4/21/2017 11:34:39 AM	A42279
Xylenes, Total	40	0.37		mg/Kg	5	4/21/2017 11:34:39 AM	A42279
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	5	4/21/2017 11:34:39 AM	A42279
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	5	4/21/2017 11:34:39 AM	A42279
Surr: Dibromofluoromethane	94.3	70-130		%Rec	5	4/21/2017 11:34:39 AM	A42279
Surr: Toluene-d8	96.9	70-130		%Rec	5	4/21/2017 11:34:39 AM	A42279

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-12

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:02:00 PM

Lab ID: 1704960-004

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	1000	17		mg/Kg	5	4/21/2017 12:03:44 PM	D42279
Surr: BFB	107	70-130		%Rec	5	4/21/2017 12:03:44 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	460	100		mg/Kg	10	4/21/2017 10:39:28 AM	31359
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/21/2017 10:39:28 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 10:39:28 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.086		mg/Kg	5	4/21/2017 12:03:44 PM	A42279
Toluene	0.65	0.17		mg/Kg	5	4/21/2017 12:03:44 PM	A42279
Ethylbenzene	0.34	0.17		mg/Kg	5	4/21/2017 12:03:44 PM	A42279
Xylenes, Total	38	0.34		mg/Kg	5	4/21/2017 12:03:44 PM	A42279
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	5	4/21/2017 12:03:44 PM	A42279
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	5	4/21/2017 12:03:44 PM	A42279
Surr: Dibromofluoromethane	94.0	70-130		%Rec	5	4/21/2017 12:03:44 PM	A42279
Surr: Toluene-d8	92.3	70-130		%Rec	5	4/21/2017 12:03:44 PM	A42279

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-13

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:04:00 PM

Lab ID: 1704960-005

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	920	19		mg/Kg	5	4/21/2017 12:32:30 PM	D42279
Surr: BFB	121	70-130		%Rec	5	4/21/2017 12:32:30 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	450	98		mg/Kg	10	4/21/2017 11:03:45 AM	31359
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	4/21/2017 11:03:45 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 11:03:45 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.094		mg/Kg	5	4/21/2017 12:32:30 PM	A42279
Toluene	0.36	0.19		mg/Kg	5	4/21/2017 12:32:30 PM	A42279
Ethylbenzene	0.19	0.19		mg/Kg	5	4/21/2017 12:32:30 PM	A42279
Xylenes, Total	28	0.38		mg/Kg	5	4/21/2017 12:32:30 PM	A42279
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	5	4/21/2017 12:32:30 PM	A42279
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	5	4/21/2017 12:32:30 PM	A42279
Surr: Dibromofluoromethane	97.5	70-130		%Rec	5	4/21/2017 12:32:30 PM	A42279
Surr: Toluene-d8	95.7	70-130		%Rec	5	4/21/2017 12:32:30 PM	A42279

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-14**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:06:00 PM**Lab ID:** 1704960-006**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	960	18		mg/Kg	5	4/21/2017 1:01:10 PM	D42279
Surr: BFB	109	70-130		%Rec	5	4/21/2017 1:01:10 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	470	96		mg/Kg	10	4/21/2017 11:28:15 AM	31359
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/21/2017 11:28:15 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 11:28:15 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.089		mg/Kg	5	4/21/2017 1:01:10 PM	A42279
Toluene	0.68	0.18		mg/Kg	5	4/21/2017 1:01:10 PM	A42279
Ethylbenzene	0.34	0.18		mg/Kg	5	4/21/2017 1:01:10 PM	A42279
Xylenes, Total	36	0.36		mg/Kg	5	4/21/2017 1:01:10 PM	A42279
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%Rec	5	4/21/2017 1:01:10 PM	A42279
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	5	4/21/2017 1:01:10 PM	A42279
Surr: Dibromofluoromethane	91.8	70-130		%Rec	5	4/21/2017 1:01:10 PM	A42279
Surr: Toluene-d8	96.3	70-130		%Rec	5	4/21/2017 1:01:10 PM	A42279

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-15**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:08:00 PM**Lab ID:** 1704960-007**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	830	19		mg/Kg	5	4/21/2017 1:30:13 PM	D42279
Surr: BFB	108	70-130		%Rec	5	4/21/2017 1:30:13 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	400	95		mg/Kg	10	4/21/2017 11:52:48 AM	31359
Motor Oil Range Organics (MRO)	ND	470		mg/Kg	10	4/21/2017 11:52:48 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 11:52:48 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.093		mg/Kg	5	4/21/2017 1:30:13 PM	A42279
Toluene	0.77	0.19		mg/Kg	5	4/21/2017 1:30:13 PM	A42279
Ethylbenzene	0.40	0.19		mg/Kg	5	4/21/2017 1:30:13 PM	A42279
Xylenes, Total	28	0.37		mg/Kg	5	4/21/2017 1:30:13 PM	A42279
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	5	4/21/2017 1:30:13 PM	A42279
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	5	4/21/2017 1:30:13 PM	A42279
Surr: Dibromofluoromethane	94.4	70-130		%Rec	5	4/21/2017 1:30:13 PM	A42279
Surr: Toluene-d8	95.0	70-130		%Rec	5	4/21/2017 1:30:13 PM	A42279

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-16**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:10:00 PM**Lab ID:** 1704960-008**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	590	18		mg/Kg	5	4/21/2017 1:59:28 PM	D42279
Surr: BFB	106	70-130		%Rec	5	4/21/2017 1:59:28 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	690	100		mg/Kg	10	4/21/2017 10:46:00 AM	31359
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/21/2017 10:46:00 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 10:46:00 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.090		mg/Kg	5	4/21/2017 1:59:28 PM	A42279
Toluene	ND	0.18		mg/Kg	5	4/21/2017 1:59:28 PM	A42279
Ethylbenzene	ND	0.18		mg/Kg	5	4/21/2017 1:59:28 PM	A42279
Xylenes, Total	14	0.36		mg/Kg	5	4/21/2017 1:59:28 PM	A42279
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%Rec	5	4/21/2017 1:59:28 PM	A42279
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	5	4/21/2017 1:59:28 PM	A42279
Surr: Dibromofluoromethane	95.3	70-130		%Rec	5	4/21/2017 1:59:28 PM	A42279
Surr: Toluene-d8	95.4	70-130		%Rec	5	4/21/2017 1:59:28 PM	A42279

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-17

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:12:00 PM

Lab ID: 1704960-009

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	300	18		mg/Kg	5	4/21/2017 2:28:07 PM	D42279
Surr: BFB	101	70-130		%Rec	5	4/21/2017 2:28:07 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	99	92		mg/Kg	10	4/21/2017 11:13:51 AM	31359
Motor Oil Range Organics (MRO)	ND	460		mg/Kg	10	4/21/2017 11:13:51 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 11:13:51 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.092		mg/Kg	5	4/21/2017 2:28:07 PM	A42279
Toluene	ND	0.18		mg/Kg	5	4/21/2017 2:28:07 PM	A42279
Ethylbenzene	ND	0.18		mg/Kg	5	4/21/2017 2:28:07 PM	A42279
Xylenes, Total	4.1	0.37		mg/Kg	5	4/21/2017 2:28:07 PM	A42279
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	5	4/21/2017 2:28:07 PM	A42279
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	5	4/21/2017 2:28:07 PM	A42279
Surr: Dibromofluoromethane	95.9	70-130		%Rec	5	4/21/2017 2:28:07 PM	A42279
Surr: Toluene-d8	95.4	70-130		%Rec	5	4/21/2017 2:28:07 PM	A42279

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-18

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:14:00 PM

Lab ID: 1704960-010

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	340	17		mg/Kg	5	4/21/2017 2:56:59 PM	D42279
Surr: BFB	109	70-130		%Rec	5	4/21/2017 2:56:59 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	200	96		mg/Kg	10	4/21/2017 11:41:39 AM	31359
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/21/2017 11:41:39 AM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 11:41:39 AM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.087		mg/Kg	5	4/21/2017 2:56:59 PM	A42279
Toluene	0.19	0.17		mg/Kg	5	4/21/2017 2:56:59 PM	A42279
Ethylbenzene	ND	0.17		mg/Kg	5	4/21/2017 2:56:59 PM	A42279
Xylenes, Total	6.5	0.35		mg/Kg	5	4/21/2017 2:56:59 PM	A42279
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	5	4/21/2017 2:56:59 PM	A42279
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	5	4/21/2017 2:56:59 PM	A42279
Surr: Dibromofluoromethane	95.5	70-130		%Rec	5	4/21/2017 2:56:59 PM	A42279
Surr: Toluene-d8	98.3	70-130		%Rec	5	4/21/2017 2:56:59 PM	A42279

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-19**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:16:00 PM**Lab ID:** 1704960-011**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	380	17		mg/Kg	5	4/21/2017 3:25:35 PM	D42279
Surr: BFB	106	70-130		%Rec	5	4/21/2017 3:25:35 PM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	250	97		mg/Kg	10	4/21/2017 12:10:50 PM	31359
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/21/2017 12:10:50 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 12:10:50 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.083		mg/Kg	5	4/21/2017 3:25:35 PM	A42279
Toluene	ND	0.17		mg/Kg	5	4/21/2017 3:25:35 PM	A42279
Ethylbenzene	ND	0.17		mg/Kg	5	4/21/2017 3:25:35 PM	A42279
Xylenes, Total	6.2	0.33		mg/Kg	5	4/21/2017 3:25:35 PM	A42279
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%Rec	5	4/21/2017 3:25:35 PM	A42279
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	5	4/21/2017 3:25:35 PM	A42279
Surr: Dibromofluoromethane	95.9	70-130		%Rec	5	4/21/2017 3:25:35 PM	A42279
Surr: Toluene-d8	94.2	70-130		%Rec	5	4/21/2017 3:25:35 PM	A42279

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-20**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:18:00 PM**Lab ID:** 1704960-012**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1100	20		mg/Kg	5	4/21/2017 10:30:32 AM	R42292
Surr: BFB	87.7	70-130		%Rec	5	4/21/2017 10:30:32 AM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	210	98		mg/Kg	10	4/21/2017 12:38:40 PM	31359
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	4/21/2017 12:38:40 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 12:38:40 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.10		mg/Kg	5	4/21/2017 10:30:32 AM	A42292
Toluene	ND	0.20		mg/Kg	5	4/21/2017 10:30:32 AM	A42292
Ethylbenzene	ND	0.20		mg/Kg	5	4/21/2017 10:30:32 AM	A42292
Xylenes, Total	6.0	0.41		mg/Kg	5	4/21/2017 10:30:32 AM	A42292
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	5	4/21/2017 10:30:32 AM	A42292
Surr: 4-Bromofluorobenzene	73.1	70-130		%Rec	5	4/21/2017 10:30:32 AM	A42292
Surr: Dibromofluoromethane	101	70-130		%Rec	5	4/21/2017 10:30:32 AM	A42292
Surr: Toluene-d8	108	70-130		%Rec	5	4/21/2017 10:30:32 AM	A42292

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-21

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:20:00 PM

Lab ID: 1704960-013

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	980	17		mg/Kg	5	4/21/2017 10:59:34 AM	R42292
Surr: BFB	84.0	70-130		%Rec	5	4/21/2017 10:59:34 AM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	260	96		mg/Kg	10	4/21/2017 1:06:48 PM	31359
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/21/2017 1:06:48 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 1:06:48 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.087		mg/Kg	5	4/21/2017 10:59:34 AM	A42292
Toluene	0.18	0.17		mg/Kg	5	4/21/2017 10:59:34 AM	A42292
Ethylbenzene	ND	0.17		mg/Kg	5	4/21/2017 10:59:34 AM	A42292
Xylenes, Total	8.2	0.35		mg/Kg	5	4/21/2017 10:59:34 AM	A42292
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	5	4/21/2017 10:59:34 AM	A42292
Surr: 4-Bromofluorobenzene	71.9	70-130		%Rec	5	4/21/2017 10:59:34 AM	A42292
Surr: Dibromofluoromethane	102	70-130		%Rec	5	4/21/2017 10:59:34 AM	A42292
Surr: Toluene-d8	103	70-130		%Rec	5	4/21/2017 10:59:34 AM	A42292

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.

Analytical Report

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips

Client Sample ID: TSP-22

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:22:00 PM

Lab ID: 1704960-014

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1000	18		mg/Kg	5	4/21/2017 11:28:27 AM	R42292
Surr: BFB	92.2	70-130		%Rec	5	4/21/2017 11:28:27 AM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	230	96		mg/Kg	10	4/21/2017 1:34:47 PM	31359
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/21/2017 1:34:47 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 1:34:47 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.090		mg/Kg	5	4/21/2017 11:28:27 AM	A42292
Toluene	ND	0.18		mg/Kg	5	4/21/2017 11:28:27 AM	A42292
Ethylbenzene	ND	0.18		mg/Kg	5	4/21/2017 11:28:27 AM	A42292
Xylenes, Total	5.2	0.36		mg/Kg	5	4/21/2017 11:28:27 AM	A42292
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	5	4/21/2017 11:28:27 AM	A42292
Surr: 4-Bromofluorobenzene	75.2	70-130		%Rec	5	4/21/2017 11:28:27 AM	A42292
Surr: Dibromofluoromethane	103	70-130		%Rec	5	4/21/2017 11:28:27 AM	A42292
Surr: Toluene-d8	107	70-130		%Rec	5	4/21/2017 11:28:27 AM	A42292

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-23

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:24:00 PM

Lab ID: 1704960-015

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1300	20		mg/Kg	5	4/21/2017 11:57:33 AM	R42292
Surr: BFB	88.6	70-130		%Rec	5	4/21/2017 11:57:33 AM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	220	95		mg/Kg	10	4/21/2017 2:02:38 PM	31359
Motor Oil Range Organics (MRO)	ND	470		mg/Kg	10	4/21/2017 2:02:38 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 2:02:38 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.10		mg/Kg	5	4/21/2017 11:57:33 AM	A42292
Toluene	0.55	0.20		mg/Kg	5	4/21/2017 11:57:33 AM	A42292
Ethylbenzene	0.27	0.20		mg/Kg	5	4/21/2017 11:57:33 AM	A42292
Xylenes, Total	12	0.40		mg/Kg	5	4/21/2017 11:57:33 AM	A42292
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	5	4/21/2017 11:57:33 AM	A42292
Surr: 4-Bromofluorobenzene	63.6	70-130	S	%Rec	5	4/21/2017 11:57:33 AM	A42292
Surr: Dibromofluoromethane	96.9	70-130		%Rec	5	4/21/2017 11:57:33 AM	A42292
Surr: Toluene-d8	107	70-130		%Rec	5	4/21/2017 11:57:33 AM	A42292

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-24

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:26:00 PM

Lab ID: 1704960-016

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1000	19		mg/Kg	5	4/21/2017 12:27:22 PM	R42292
Surr: BFB	88.1	70-130		%Rec	5	4/21/2017 12:27:22 PM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	170	98		mg/Kg	10	4/21/2017 12:17:24 PM	31359
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	4/21/2017 12:17:24 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 12:17:24 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.096		mg/Kg	5	4/21/2017 12:27:22 PM	A42292
Toluene	ND	0.19		mg/Kg	5	4/21/2017 12:27:22 PM	A42292
Ethylbenzene	ND	0.19		mg/Kg	5	4/21/2017 12:27:22 PM	A42292
Xylenes, Total	7.7	0.38		mg/Kg	5	4/21/2017 12:27:22 PM	A42292
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	5	4/21/2017 12:27:22 PM	A42292
Surr: 4-Bromofluorobenzene	67.3	70-130	S	%Rec	5	4/21/2017 12:27:22 PM	A42292
Surr: Dibromofluoromethane	98.5	70-130		%Rec	5	4/21/2017 12:27:22 PM	A42292
Surr: Toluene-d8	106	70-130		%Rec	5	4/21/2017 12:27:22 PM	A42292

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-25

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:28:00 PM

Lab ID: 1704960-017

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	990	16		mg/Kg	5	4/21/2017 12:56:52 PM	R42292
Surr: BFB	80.7	70-130		%Rec	5	4/21/2017 12:56:52 PM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	160	96		mg/Kg	10	4/21/2017 12:41:53 PM	31359
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/21/2017 12:41:53 PM	31359
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 12:41:53 PM	31359
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.080		mg/Kg	5	4/21/2017 12:56:52 PM	A42292
Toluene	0.76	0.16		mg/Kg	5	4/21/2017 12:56:52 PM	A42292
Ethylbenzene	0.42	0.16		mg/Kg	5	4/21/2017 12:56:52 PM	A42292
Xylenes, Total	14	0.32		mg/Kg	5	4/21/2017 12:56:52 PM	A42292
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	5	4/21/2017 12:56:52 PM	A42292
Surr: 4-Bromofluorobenzene	67.5	70-130	S	%Rec	5	4/21/2017 12:56:52 PM	A42292
Surr: Dibromofluoromethane	106	70-130		%Rec	5	4/21/2017 12:56:52 PM	A42292
Surr: Toluene-d8	101	70-130		%Rec	5	4/21/2017 12:56:52 PM	A42292

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-26**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:30:00 PM**Lab ID:** 1704960-018**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1100	18		mg/Kg	5	4/21/2017 1:26:29 PM	R42292
Surr: BFB	99.1	70-130		%Rec	5	4/21/2017 1:26:29 PM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	150	9.7		mg/Kg	1	4/21/2017 2:20:27 PM	31360
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/21/2017 2:20:27 PM	31360
Surr: DNOP	84.2	70-130		%Rec	1	4/21/2017 2:20:27 PM	31360
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.089		mg/Kg	5	4/21/2017 1:26:29 PM	A42292
Toluene	0.38	0.18		mg/Kg	5	4/21/2017 1:26:29 PM	A42292
Ethylbenzene	0.25	0.18		mg/Kg	5	4/21/2017 1:26:29 PM	A42292
Xylenes, Total	11	0.36		mg/Kg	5	4/21/2017 1:26:29 PM	A42292
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	5	4/21/2017 1:26:29 PM	A42292
Surr: 4-Bromofluorobenzene	71.6	70-130		%Rec	5	4/21/2017 1:26:29 PM	A42292
Surr: Dibromofluoromethane	102	70-130		%Rec	5	4/21/2017 1:26:29 PM	A42292
Surr: Toluene-d8	104	70-130		%Rec	5	4/21/2017 1:26:29 PM	A42292

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.

Analytical Report

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips

Client Sample ID: TSP-27

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:32:00 PM

Lab ID: 1704960-019

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1000	19		mg/Kg	5	4/21/2017 1:55:55 PM	R42292
Surr: BFB	113	70-130		%Rec	5	4/21/2017 1:55:55 PM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	130	100		mg/Kg	10	4/21/2017 1:31:15 PM	31360
Motor Oil Range Organics (MRO)	ND	510		mg/Kg	10	4/21/2017 1:31:15 PM	31360
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 1:31:15 PM	31360
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.093		mg/Kg	5	4/21/2017 1:55:55 PM	R42292
Toluene	0.35	0.19		mg/Kg	5	4/21/2017 1:55:55 PM	R42292
Ethylbenzene	0.24	0.19		mg/Kg	5	4/21/2017 1:55:55 PM	R42292
Xylenes, Total	8.0	0.37		mg/Kg	5	4/21/2017 1:55:55 PM	R42292
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	5	4/21/2017 1:55:55 PM	R42292
Surr: 4-Bromofluorobenzene	79.4	70-130		%Rec	5	4/21/2017 1:55:55 PM	R42292
Surr: Dibromofluoromethane	101	70-130		%Rec	5	4/21/2017 1:55:55 PM	R42292
Surr: Toluene-d8	100	70-130		%Rec	5	4/21/2017 1:55:55 PM	R42292

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.**Analytical Report**

Lab Order 1704960

Date Reported: 4/26/2017

CLIENT: Conoco Phillips**Client Sample ID:** TSP-28**Project:** San Juan 27-5 137P**Collection Date:** 4/20/2017 1:34:00 PM**Lab ID:** 1704960-020**Matrix:** MEOH (SOIL)**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	490	17		mg/Kg	5	4/21/2017 2:25:04 PM	R42292
Surr: BFB	101	70-130		%Rec	5	4/21/2017 2:25:04 PM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	130	99		mg/Kg	10	4/21/2017 1:55:56 PM	31360
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/21/2017 1:55:56 PM	31360
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 1:55:56 PM	31360
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.087		mg/Kg	5	4/21/2017 2:25:04 PM	A42292
Toluene	ND	0.17		mg/Kg	5	4/21/2017 2:25:04 PM	A42292
Ethylbenzene	ND	0.17		mg/Kg	5	4/21/2017 2:25:04 PM	A42292
Xylenes, Total	1.9	0.35		mg/Kg	5	4/21/2017 2:25:04 PM	A42292
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	5	4/21/2017 2:25:04 PM	A42292
Surr: 4-Bromofluorobenzene	78.5	70-130		%Rec	5	4/21/2017 2:25:04 PM	A42292
Surr: Dibromofluoromethane	97.2	70-130		%Rec	5	4/21/2017 2:25:04 PM	A42292
Surr: Toluene-d8	100	70-130		%Rec	5	4/21/2017 2:25:04 PM	A42292

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: TSP-29

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:36:00 PM

Lab ID: 1704960-021

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	400	18		mg/Kg	5	4/21/2017 2:54:47 PM	R42292
Surr: BFB	99.2	70-130		%Rec	5	4/21/2017 2:54:47 PM	R42292
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	140	99		mg/Kg	10	4/21/2017 2:30:21 PM	31360
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/21/2017 2:30:21 PM	31360
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 2:30:21 PM	31360
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.088		mg/Kg	5	4/21/2017 2:54:47 PM	A42292
Toluene	ND	0.18		mg/Kg	5	4/21/2017 2:54:47 PM	A42292
Ethylbenzene	ND	0.18		mg/Kg	5	4/21/2017 2:54:47 PM	A42292
Xylenes, Total	1.2	0.35		mg/Kg	5	4/21/2017 2:54:47 PM	A42292
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	5	4/21/2017 2:54:47 PM	A42292
Surr: 4-Bromofluorobenzene	86.0	70-130		%Rec	5	4/21/2017 2:54:47 PM	A42292
Surr: Dibromofluoromethane	102	70-130		%Rec	5	4/21/2017 2:54:47 PM	A42292
Surr: Toluene-d8	103	70-130		%Rec	5	4/21/2017 2:54:47 PM	A42292

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 1704960

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: SWF-SS02

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:46:00 PM

Lab ID: 1704960-022

Matrix: MEOH (SOIL)

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	1100	19		mg/Kg	5	4/21/2017 11:05:43 AM	D42279
Surr: BFB	104	70-130		%Rec	5	4/21/2017 11:05:43 AM	D42279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	580	100		mg/Kg	10	4/21/2017 9:50:54 AM	31360
Motor Oil Range Organics (MRO)	ND	510		mg/Kg	10	4/21/2017 9:50:54 AM	31360
Surr: DNOP	0	70-130	S	%Rec	10	4/21/2017 9:50:54 AM	31360
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.095		mg/Kg	5	4/21/2017 11:05:43 AM	A42279
Toluene	3.4	0.19		mg/Kg	5	4/21/2017 11:05:43 AM	A42279
Ethylbenzene	2.2	0.19		mg/Kg	5	4/21/2017 11:05:43 AM	A42279
Xylenes, Total	40	0.38		mg/Kg	5	4/21/2017 11:05:43 AM	A42279
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%Rec	5	4/21/2017 11:05:43 AM	A42279
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	5	4/21/2017 11:05:43 AM	A42279
Surr: Dibromofluoromethane	94.5	70-130		%Rec	5	4/21/2017 11:05:43 AM	A42279
Surr: Toluene-d8	94.3	70-130		%Rec	5	4/21/2017 11:05:43 AM	A42279

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#: 1704960

26-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	LCS-31359		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31359		RunNo: 42271					
Prep Date:	4/21/2017		Analysis Date: 4/21/2017		SeqNo: 1328164		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	95.8	63.8	116			
Surr: DNOP	4.7		5.000		93.5	70	130			

Sample ID	MB-31359	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31359			RunNo: 42271					
Prep Date:	4/21/2017	Analysis Date: 4/21/2017			SeqNo: 1328165		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		108	70	130			

Sample ID	MB-31360	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31360			RunNo: 42274					
Prep Date:	4/21/2017	Analysis Date: 4/21/2017			SeqNo: 1328407		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	8.9		10.00		89.0	70	130			

Sample ID	LCS-31360		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31360		RunNo: 42274					
Prep Date:	4/21/2017		Analysis Date: 4/21/2017		SeqNo: 1328408		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	87.9	63.8	116			
Surr: DNOP	4.5		5.000		89.6	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#: 1704960

26-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	A42292	RunNo:	42292					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329136	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: 1,2-Dichloroethane-d4	0.49		0.5000		98.1	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	A42279	RunNo:	42279					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329640	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: 1,2-Dichloroethane-d4	0.47		0.5000		93.8	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.3	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.3	70	130			
Surr: Toluene-d8	0.48		0.5000		96.6	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	A42279	RunNo:	42279					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329641	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		99.0	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.6	70	130			
Surr: Toluene-d8	0.47		0.5000		94.7	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	A42292	RunNo:	42292					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329730	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1704960

26-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	A42292	RunNo:	42292					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329730	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	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	B42325	RunNo:	42325					
Prep Date:		Analysis Date:	4/24/2017	SeqNo:	1330691	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: 1,2-Dichloroethane-d4	0.45		0.5000		90.8	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.8	70	130			
Surr: Toluene-d8	0.48		0.5000		96.6	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	B42325	RunNo:	42325					
Prep Date:		Analysis Date:	4/24/2017	SeqNo:	1330692	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.9	70	130			
Toluene	1.0	0.050	1.000	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		86.4	70	130			
Surr: Toluene-d8	0.50		0.5000		101	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#: 1704960

26-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	R42292	RunNo:	42292					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329146	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	490		500.0		97.3	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	D42279	RunNo:	42279					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329700	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	500		500.0		100	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	D42279	RunNo:	42279					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329702	Units:	mg/Kg			
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	70	130			
Surr: BFB	510		500.0		101	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	R42292	RunNo:	42292					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329727	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	C42325	RunNo:	42325					
Prep Date:		Analysis Date:	4/24/2017	SeqNo:	1330707	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	530		500.0		106	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	C42325	RunNo:	42325					
Prep Date:		Analysis Date:	4/24/2017	SeqNo:	1330708	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	530		500.0		106	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#: 1704960

26-Apr-17

Client: Conoco Phillips
Project: San Juan 27-5 137P

Sample ID	2.5ug gro lcs	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID: C42325			RunNo: 42325					
Prep Date:		Analysis Date: 4/24/2017			SeqNo: 1330708		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	70	130			
Surr: BFB	540		500.0		109	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 |



Hall Environmental Analysis Laboratory
4961 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4167
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Conoco Phillips Farm HW

Work Order Number: 1704960

RcptNo: 1

Received By: Lindsay Mangin 4/21/2017 7:38:00 AM

Completed By: Lindsay Mangin 4/21/2017 7:57:17 AM

Reviewed By: *SRE 04/21/17*

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 $>0^{\circ}\text{C}$ 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 # of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No Adjusted?
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 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

Chain-of-Custody Record

Client: Conoco Phillips
Lisa Hunter
Mailing Address: 5525 US Hwy 64
Farmington, NM 87401
Phone #: 505-285-1607
email or Fax#: lisa.hunter@conocophillips.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same day
Project Name: San Juan 27-5 137P
Project #: App/PO : KAITLM
WO # 22041740
Project Manager: Damy Burns
Sampler: Josh Adams
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.3



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 / 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)	Air Bubbles (Y or N)
12-20-17	12:29	Soil	SW-SS05	(1) 4oz.	cool	1704960	X		X									
	1300		SW-SS06			-001	X		X									
	1302		TSP-11			-002	X		X									
	1304		TSP-12			-003	X		X									
	1306		TSP-13			-004	X		X									
	1308		TSP-14			-005	X		X									
	1310		TSP-15			-006	X		X									
	1312		TSP-16			-007	X		X									
	1314		TSP-17			-008	X		X									
	1316		TSP-18			-009	X		X									
	1318		TSP-19			-010	X		X									
			TSP-20			-011	X		X									
						-012	X		X									

Date: 12-20-17 Time: 1515 Relinquished by: Josh Adams
Date: 12/21/17 Time: 1940 Relinquished by: Christi Waeke
Received by: Christi Waeke Date: 4/20/17 Time: 1515
Received by: [Signature] Date: 04/21/17 Time: 0738

Remarks: cc: lisa
aaagere@tenu.com
dburns@tenu.com
jadams@tenu.com

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.

Chain-of-Custody Record

Client: Conoco Phillips
Lisa Hunter
Mailing Address: 5525 US Hwy 64
Farmington, NM 87401
Phone #: 505-285-1607
email or Fax#: lisa.hunter@conocophillips.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Turn-Around Time:
☐ Standard ☒ Rush same day
Project Name: San Juan 27-5 137P
Project #: App/PO: KAITLM
WO# 22041790
Project Manager: Danny Burns

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Sampler: Josh Adams
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.3



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/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)	Air Bubbles (Y or N)
4-20-17	1320	soil	TSP-21	(1) 402	cool	17041790-013	X		X									
	1322		TSP-22			-014	X		X									
	1324		TSP-23			-015	X		X									
	1326		TSP-24			-016	X		X									
	1328		TSP-25			-017	X		X									
	1330		TSP-26			-018	X		X									
	1332		TSP-27			-019	X		X									
	1334		TSP-28			-020	X		X									
	1336		TSP-29			-021	X		X									
	1340		SUF-SS02			-022	X		X									

Date: 4-20-17 Time: 1515 Relinquished by: Josh Adams
Date: 4/20/17 Time: 1940 Relinquished by: Christina Walker

Received by: Christina Walker Date: 4/20/17 Time: 1515
Received by: [Signature] Date: 4/20/17 Time: 0738

Remarks: CC: lisa
aayer@henv.com
dburns@henv.com
jadams@henv.com

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 noted 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

May 05, 2017

Danny Burns
Conoco Phillips
PO Box 4289
Farmington, NM 87499
TEL: (505) 326-9782
FAX

RE: San Juan 27-5 #137P

OrderNo.: 1705071

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/2/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1705071

Date Reported: 5/5/2017

CLIENT: Conoco Phillips

Client Sample ID: North Vadose

Project: San Juan 27-5 #137P

Collection Date: 5/1/2017 10:55:00 AM

Lab ID: 1705071-001

Matrix: SOIL

Received Date: 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	110	9.5		mg/Kg	1	5/4/2017 6:26:18 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/4/2017 6:26:18 PM
Surr: DNOP	87.5	70-130		%Rec	1	5/4/2017 6:26:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	5.4	4.8		mg/Kg	1	5/3/2017 7:26:41 PM
Surr: BFB	140	54-150		%Rec	1	5/3/2017 7:26:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/3/2017 7:26:41 PM
Toluene	ND	0.048		mg/Kg	1	5/3/2017 7:26:41 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/3/2017 7:26:41 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/3/2017 7:26:41 PM
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	5/3/2017 7:26:41 PM

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 1705071

Date Reported: 5/5/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Client Sample ID: South Vadose

Project: San Juan 27-5 #137P

Collection Date: 5/1/2017 11:00:00 AM

Lab ID: 1705071-002

Matrix: SOIL

Received Date: 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	22	9.5		mg/Kg	1	5/4/2017 6:54:06 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/4/2017 6:54:06 PM
Surr: DNOP	89.7	70-130		%Rec	1	5/4/2017 6:54:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	65	4.8		mg/Kg	1	5/3/2017 7:50:32 PM
Surr: BFB	353	54-150	S	%Rec	1	5/3/2017 7:50:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/3/2017 7:50:32 PM
Toluene	ND	0.048		mg/Kg	1	5/3/2017 7:50:32 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/3/2017 7:50:32 PM
Xylenes, Total	2.0	0.096		mg/Kg	1	5/3/2017 7:50:32 PM
Surr: 4-Bromofluorobenzene	139	66.6-132	S	%Rec	1	5/3/2017 7:50:32 PM

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#: 1705071

05-May-17

Client: Conoco Phillips
Project: San Juan 27-5 #137P

Sample ID	MB-31564	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31564	RunNo:	42525					
Prep Date:	5/4/2017	Analysis Date:	5/4/2017	SeqNo:	1337677	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.1	70	130			

Sample ID	LCS-31564	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31564	RunNo:	42525					
Prep Date:	5/4/2017	Analysis Date:	5/4/2017	SeqNo:	1337679	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.2	70	130			

Sample ID	MB-31549	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31549	RunNo:	42525					
Prep Date:	5/3/2017	Analysis Date:	5/4/2017	SeqNo:	1338403	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	8.3		10.00		83.4	70	130			

Sample ID	LCS-31549	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31549	RunNo:	42525					
Prep Date:	5/3/2017	Analysis Date:	5/4/2017	SeqNo:	1338404	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	88.2	63.8	116			
Surr: DNOP	4.5		5.000		90.5	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#: 1705071

05-May-17

Client: Conoco Phillips
Project: San Juan 27-5 #137P

Sample ID	MB-31528	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	31528	RunNo	42521					
Prep Date	5/2/2017	Analysis Date	5/3/2017	SeqNo	1337213	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		98.0	54	150			

Sample ID	LCS-31528	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	31528	RunNo	42521					
Prep Date	5/2/2017	Analysis Date	5/3/2017	SeqNo	1337214	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	96.1	76.4	125			
Surr: BFB	1100		1000		110	54	150			

Sample ID	MB-31527	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	31527	RunNo	42521					
Prep Date	5/2/2017	Analysis Date	5/3/2017	SeqNo	1337221	Units	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.8	54	150			

Sample ID	LCS-31527	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	31527	RunNo	42521					
Prep Date	5/2/2017	Analysis Date	5/3/2017	SeqNo	1337222	Units	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	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#: 1705071

05-May-17

Client: Conoco Phillips
Project: San Juan 27-5 #137P

Sample ID	MB-31528		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31528		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337245		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-31528		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31528		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337246		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.4	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID	MB-31527		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31527		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337252		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		114	66.6	132			

Sample ID	LCS-31527		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31527		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337253		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	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: Conoco Phillips Farmingt

Work Order Number: 1705071

RcptNo: 1

Received By: Sophia Campuzano 5/2/2017 8:00:00 AM

Completed By: Andy Jansson 5/2/2017 9:04:06 AM

Reviewed By: ENM 05/02/17

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 $>0^{\circ}\text{C}$ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Yes			

Client: CONSCO Philips
LISA HUNTER
Mailing Address: 5525 US Hwy 64
Farmington, NM 87401
Phone #: 505-285-1607
email or Fax#: lisa.hunter@conscophillips.com
Q/VQC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

☒ Standard ☐ Rush

SAN JUAN 27-5#137P

Project #: WD# 22041740

Approver: KAITLM

Project Manager:

Danny Burns

Sampler: E. Skyles

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.3

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/1/17	1305	<i>[Signature]</i>	<i>[Signature]</i>	5/1/17	1305
Date:	Time:	Relinquished by:	Received by:	Date	Time
5/1/17	1806	<i>[Signature]</i>	<i>[Signature]</i>	05/02/17	0800

Remarks: CC: lisa
aager@tenv.com
dburnse@tenv.com

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.