<u>District I</u> 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

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

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

**Release Notification and Corrective Action** 

Form C-141

Revised August 8, 2011

					OPERA?	ГOR		Initia	al Report	$\boxtimes$	Final Report	
				l & Gas Company	Contact Lis							
		<sup>th</sup> St, Farmi		M	_	No. (505) 258-1	607					
Facility Nar	ne: San J	uan 27-5 137	P		Facility Typ	e: Gas						
Surface Ow	ner: BLM			Mineral Owner	: SF-079391			API No.3003929358				
				LOCATIO	N OF REI	LEASE						
Unit Letter	Section	Township	Range	Feet from the Nort	h/South Line	Feet from the		West Line	County			
I	18	27N	05W	2415'	FSL	205	J	FEL	Rio Arriba	1		
				Latitude <u>36.5736</u>	63 Longitud	e <u>-107.39172</u>						
				NATURE	E OF REL	EASE						
Type of Relea		rocarbon/Pro		ater	Volume of bbl		bl/21	Volume R			c/yds	
Source of Re	lease Pro	duction Tank			Date and H Unknown	lour of Occurrenc	e		Hour of Disc 5 9:40 AM	covery		
Was Immedia	ate Notice (		v	N D N D	If YES, To							
			Yes 📙	No Not Required		h (OCD) & Shar						
By Whom? Was a Watero	Lindsay	Dumas				lour 1/22/2015 4		0	IL CONS.	DIV	DIST. 3	
was a water	course Rea		es 🛛 N	lo	II IES, VC	iume impacting t	ne wate	ercourse.		- 0	047	
If a Watercou	irse was Im	pacted, Descri	be Fully.*						JUN 1	5 2	U1/	
On 1/22/201 Area Lead, headed to lo 1/12/2015 to 194 bbls of of Excavation method wit Analytical report are a I hereby certi regulations all public health should their or the environ	s at approwho then of cation for o complete condensate a Affected was 25° x h a hydroresults we attached for the the strength of the strength	contacted Are verification. an equipme e and 21 bbls and Cleanup A 75' x 10' Do gen peroxid re below the for review.  Information give are required to romment. The layer failed to a	o AM, Mea Superin The MSC ant walk and of production Take eep. Apple solution regulated ven above report and acceptance dequately CD accept	ISO doing monthly tantendent, Environment of last gauged the tank round, no release detected water. Investigation	ratal and Safet (12/22/2014, ected. It has b ion is ongoing ods of soil wathing regulator urther action the best of my notifications are the NMOCD mate contamination	y. Area Lead, E the tank had 21 een determined g. s excavated and ry standards, w required. The knowledge and un dd perform correct arked as "Final Re on that pose a thre	d treat d treat vas retue e closus	mental Spe of fluid. M e release a ed ex-situ urned to t re report and that purs ions for rele oes not relia ound water	using a so he excavat and labora  usate which reve the oper-	Safet	y Specialist ocation on ation is edding backfill. analysis	
Signature:	Js.	lu UA			Approved by	OIL CONS	1		DIVISIO	N		
Printed Name	: Lisa Hu	nter						book			5	
Title: Field I	Environme	ntal Specialis			Approval Dat	6000	I) I	Expiration I	Date:			
E-mail Addre	ss: Lisa.H	inter@conocc	phillips.c	om	Conditions of	Approval:			Attached			
Date: 06/14/2	2017		Phone: (5	05) 258-1607	_							

\* Attach Additional Sheets If Necessary

NCS1507242760





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

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 yds<sup>3</sup> 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 yds<sup>3</sup> of treated soil for the first 1,000 yds<sup>3</sup>, and then approximately one 5-point composite sample per 115 yds<sup>3</sup> 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 yds<sup>3</sup> 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.

ashley L. ager

Senior Geologist

Attachments:

Figure 1 – Site Location Map

Figure 2 – Site Map

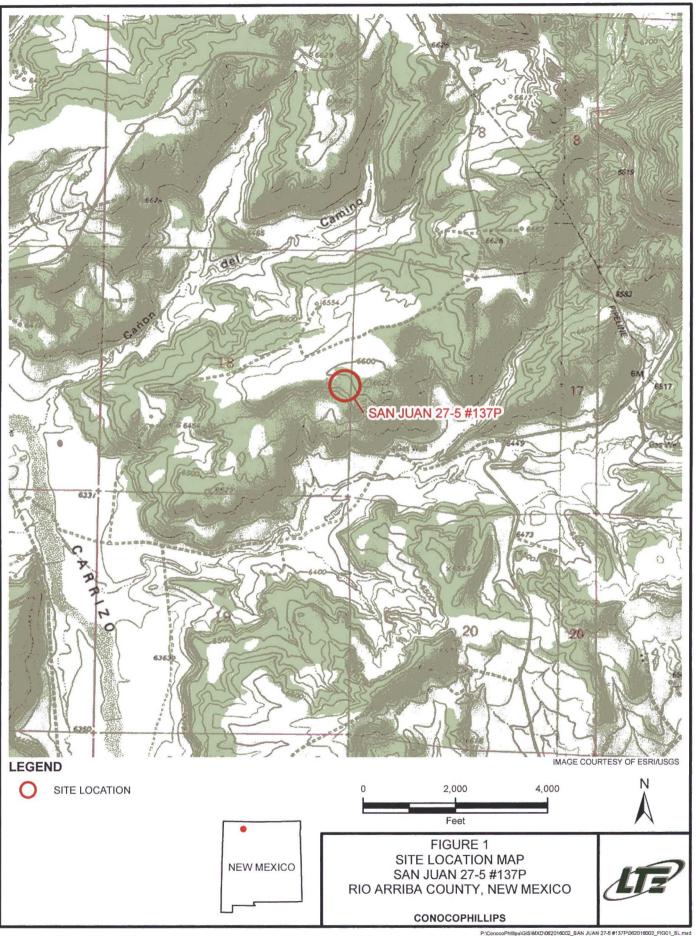
Figure 3 – Stockpile Vadose Zone Soil Sample Locations and Results

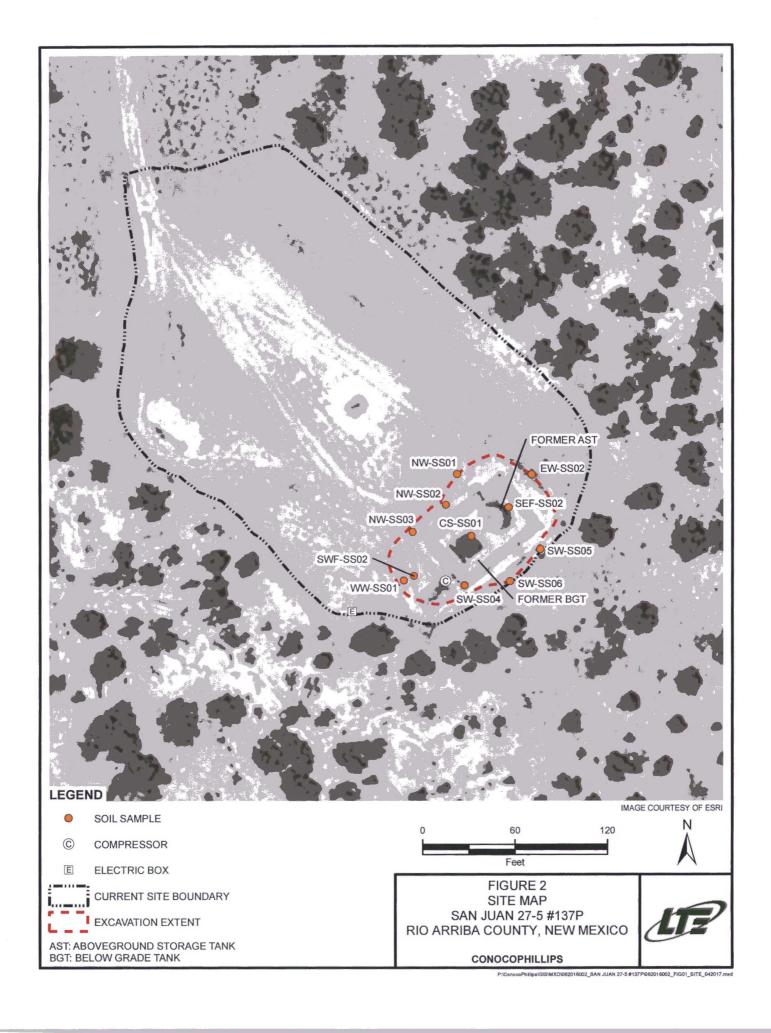
Table 1 - Laboratory Analytical Results - Excavation Confirmation Soil Samples

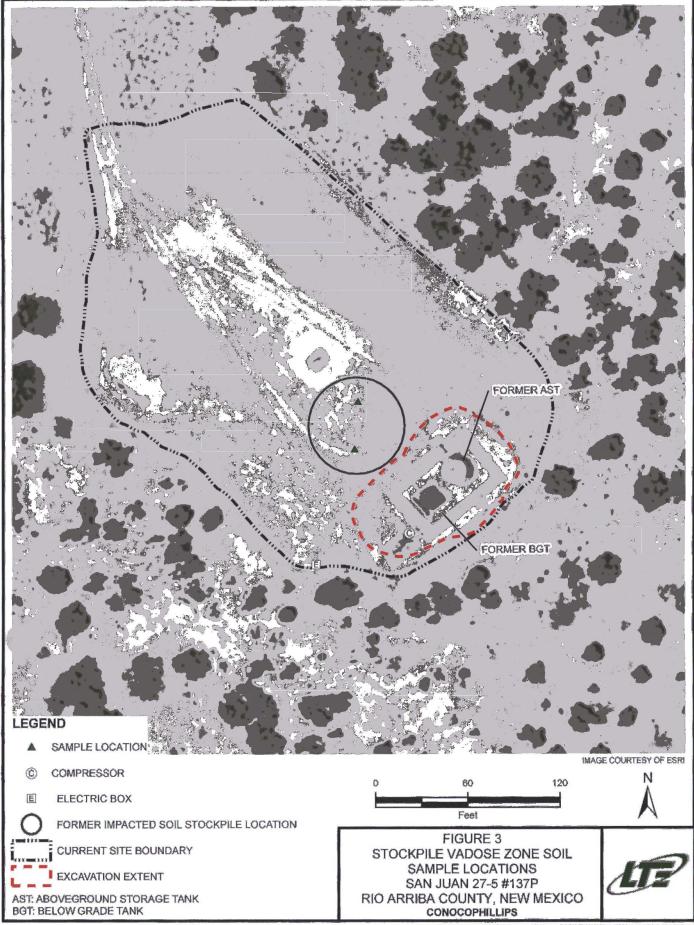
Table 2 – Laboratory Analytical Results - Treatment Soil Samples

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

Attachment 1 – Laboratory Analytical Reports







**TABLES** 



## ${\bf TABLE~1} \\ {\bf LABORATORY~ANALYTICAL~RESULTS-EXCAVATION~CONFIRMATION~SOIL~SAMPLES}$

#### 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 A	ction 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

 $\ensuremath{\mathsf{GRO}}$  - 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 (yds³)	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 A	ction Level			10	NE	NE	NE	50	NE	NE	NE	5,000	

Page 1 of 1

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

yels<sup>2</sup> cubic yards
< - indicates result is less than the stated laboratory reporting limit
BOLD indicates result exceeds applicable standard

San Juan 27-5 #137P



## TABLE 3 LABORATORY ANALYTICAL RESULTS - STOCKPILE VADOSE ZONE SOIL SAMPLES SAN JUAN 27-5 #137P DIG ADBRES COUNTY, NEW MEYICO

## 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 A	ction 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 qualifers 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

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 Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RA	EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TO								
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 S	HORT 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: GASOLII	NE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### 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 Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RAN	EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst:								
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 SH	ORT 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: GASOLIN	E 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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 Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS									
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: GASOL	INE 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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 Qu	al Units	DF	<b>Date Analyzed</b>
EPA METHOD 8015M/D: DIESEL RA	ANGE 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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 27 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### 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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	3			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: GASOL	INE 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1704732

Date Reported: 4/19/2017

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: TSP-06

Project: San Juan 27-5 137P

**CLIENT:** Conoco Phillips

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 Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RAI	EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst:								
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 S	HORT 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: GASOLII	NE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### 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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	3			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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

**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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE 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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1704732

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

Date Reported: 4/19/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips Client Sample ID: TSP-09

San Juan 27-5 137P Collection Date: 4/17/2017 1:36:00 PM Project: Matrix: MEOH (SOIL)

**Analyses PQL Qual Units** DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) 490 9.4 mg/Kg 4/18/2017 3:15:09 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 4/18/2017 3:15:09 PM 1 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 70-130 %Rec 5 4/18/2017 2:56:54 PM 106 Surr: Dibromofluoromethane 88.4 70-130 %Rec 5 4/18/2017 2:56:54 PM Surr: Toluene-d8 %Rec 4/18/2017 2:56:54 PM 95.2 70-130 5 **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:**

Lab ID:

1704732-009

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 9 of 27 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

#### 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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			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 SHO	RT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 10 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	3			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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 11 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1704732

Date Reported: 4/19/2017

4/18/2017 8:12:37 PM

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips Client Sample ID: SW-SS02

105

San Juan 27-5 137P Collection Date: 4/17/2017 12:56:00 PM Project: 1704732-012 Matrix: MEOH (SOIL) Received Date: 4/18/2017 6:48:00 AM

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

70-130

%Rec

20

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

#### Qualifiers:

Lab ID:

Surr: BFB

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 12 of 27 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

#### Lab Order 1704732

Date Reported: 4/19/2017

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: SEF-SS02

Project: San Juan 27-5 137P

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

**Lab ID:** 1704732-013

**CLIENT:** Conoco Phillips

Matrix: MEOH (SOIL) Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	3			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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 13 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: SW-SS03

Project: San Juan 27-5 137P

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

Lab ID: 1704732-014

**CLIENT:** Conoco Phillips

Matrix: MEOH (SOIL) R

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

Analyses	Result	PQL Q	Qual U	Inits	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS					Analyst: TOM
Diesel Range Organics (DRO)	1500	100	1	mg/Kg	10	4/18/2017 4:31:28 PM
Motor Oil Range Organics (MRO)	ND	500	1	ng/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	1	ng/Kg	20	4/18/2017 9:09:41 PM
Toluene	50	0.80	1	ng/Kg	20	4/18/2017 9:09:41 PM
Ethylbenzene	14	0.80	1	ng/Kg	20	4/18/2017 9:09:41 PM
Xylenes, Total	210	8.0	ı	ng/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: GASOL	INE RANGE					Analyst: DJF
Gasoline Range Organics (GRO)	3900	80	ı	ng/Kg	20	4/18/2017 9:09:41 PM
Surr: BFB	104	70-130	9	%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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 14 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### 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

**PQL Qual Units** DF **Date Analyzed** Analyses Result **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 0.11 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 5 Ethylbenzene 1.3 0.23 mg/Kg 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 5 Surr: 4-Bromofluorobenzene 96.6 70-130 %Rec 4/19/2017 12:30:03 AM Surr: Dibromofluoromethane 5 4/19/2017 12:30:03 AM 88.4 70-130 %Rec Surr: Toluene-d8 4/19/2017 12:30:03 AM 70-130 %Rec 5 99.1 **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 %Rec 5 4/19/2017 12:30:03 AM 70-130

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 15 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### 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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE 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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 16 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1704732

Date Reported: 4/19/2017

## Hall Environmental Analysis Laboratory, Inc.

**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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			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 S	HORT 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: GASOLI	NE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 17 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			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: GASOL	INE 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 18 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips Client Sample ID: CF-SS01

San Juan 27-5 137P Collection Date: 4/17/2017 1:02:00 PM Project: Lab ID: 1704732-019 Matrix: MEOH (SOIL) Received Date: 4/18/2017 6:48:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE 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 S	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: GASOL	INE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limit Page 19 of 27 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1704732

Date Reported: 4/19/2017

4/19/2017 2:53:41 AM

4/19/2017 2:53:41 AM

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips

Lab ID:

Xylenes, Total

Surr: 1,2-Dichloroethane-d4

Client Sample ID: WW-SS01

San Juan 27-5 137P Collection Date: 4/17/2017 12:50:00 PM Project: 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) 4/18/2017 1:40:35 PM 42 9.1 mg/Kg 1 Motor Oil Range Organics (MRO) 4/18/2017 1:40:35 PM ND mg/Kg 46 1 Surr: DNOP 4/18/2017 1:40:35 PM 87.5 70-130 %Rec 1 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF Benzene ND 0.094 5 4/19/2017 2:53:41 AM mg/Kg 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

0.99

96.8

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 4/19/2017 2:53:41 AM 19 mg/Kg 5 Surr: BFB 107 70-130 %Rec 5 4/19/2017 2:53:41 AM

0.38

70-130

mg/Kg

%Rec

5

5

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 20 of 27 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

## **QC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

Client:

Conoco Phillips

Project:

San Juan 27-5 137P

Project: San Juan	127-5 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: <b>1324298</b> Units:	%Rec				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit Highl	Limit %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: <b>1324867</b> Units:	mg/Kg				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighL	Limit %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	: 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: <b>1324868</b> Units:	mg/Kg				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighL	Limit %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: <b>1325111</b> Units:	%Rec				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighL	imit %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 HighL	imit %RPD RPDLimit Qual				
Surr: DNOP	8.5 10.00		130				
Sample ID 1704732-001AMS	SampType: MS	TestCode: EPA Method 8015M	/D: Diesel Range Organics				
Client ID: TSP-01	Batch ID: 31286	RunNo: <b>42155</b>					
Prep Date: 4/18/2017	Analysis Date: 4/18/2017	SeqNo: <b>1325888</b> Units:	mg/Kg				
I .							

#### Qualifiers:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

PQL

9.8

Result

530

4.0

SPK value SPK Ref Val

240.6

48.88

4.888

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

LowLimit

51.6

70

HighLimit

130

130

%RPD

E Value above quantitation range

%REC

587

81.2

J Analyte detected below quantitation limits

Page 21 of 27

**RPDLimit** 

Qual

S

WO#:

1704732

19-Apr-17

P Sample pH Not In Range RL Reporting Detection Limit

RL Reporting Detection Limit
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 %REC %RPD **RPDLimit** PQL SPK value SPK Ref Val LowLimit HighLimit Qual Diesel Range Organics (DRO) 610 9.9 49.55 240.6 754 51.6 15.2 S Surr: DNOP 4.955 70 0 3.9 79.3 130 0

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

Value above quantitation range

J Analyte detected below quantitation limits Page 22 of 27

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

## **QC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704732

19-Apr-17

Client: Project:

Conoco Phillips San Juan 27-5 137P

Sample ID rb	Samp	SampType: MBLK TestCode: EPA Method 8:			8260B: Vola	tiles Short	List			
Client ID: PBS	Batcl	Batch ID: A42189			RunNo: 4	2189				
Prep Date:	Analysis E	Analysis Date: 4/18/2017			SeqNo: 1	326107	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 Ics	SampT	ype: LC	S	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: LCSS	Batch	Batch ID: A42189			RunNo: 42189						
Prep Date:	Analysis D	ate: 4/	18/2017	SeqNo: 1326108			Units: mg/K	Inits: 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	SampT	SampType: MS TestCode: EPA Method				8260B: Vola	tiles Short	List		
Client ID: TSP-01	Batch	Batch ID: A42189			RunNo: 42189					
Prep Date:	Analysis D	ate: 4/	18/2017	5	SeqNo: 1	326109	Units: mg/k	(g		
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 23 of 27

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1704732

19-Apr-17

Client:

Conoco Phillips

San Juan 27 5 137D

	27-5 137P									
Sample ID 1704732-001amsd	SampT	ype: M	SD	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List	
Client ID: TSP-01	Batch	ID: A4	2189	F	RunNo: 4	2189				
Prep Date:	Analysis D	ate: 4	18/2017	5	SeqNo: 1	326118	Units: mg/k	<b>(</b> g		
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	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List	
Client ID: PBS	Batch	ID: <b>B</b> 4	2189	F	RunNo: 4	2189				
Prep Date:	Analysis D	ate: 4	18/2017	8	SeqNo: 1	326211	Units: mg/K	(g		
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								
Kylenes, 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 Ics2	SampT	ype: LC	s	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: LCSS	Batch	ID: <b>B</b> 4	2189	F	RunNo: 4	2189				
Prep Date:	Analysis D	ate: 4/	18/2017	8	SeqNo: 1	326212	Units: mg/K	(g		
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			
oluene	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	SampT	ype: MS	3	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
	Batch	ID: <b>B</b> 4	2189	F	RunNo: 4	2189				
Client ID: WW-SS01		ate: 4/	19/2017	8	SeqNo: 1	326214	Units: mg/K	(g		
Client ID: <b>WW-SS01</b> Prep Date:	Analysis D				W DE0	LowLimit	I limb i imali	0/ DDD	DDDI imit	Qual
Prep Date:	Analysis Da	PQL	SPK value	SPK Ref Val	%REC	LOWLIIIII	HighLimit	%RPD	RPDLimit	Quai
Prep Date: Analyte			SPK value 3.770	SPK Ref Val	93.8	61.9	146	%RPD	RPDLIMIL	Quai
Prep Date: Analyte Benzene	Result	PQL						%RPD	RPDLIMI	Quai
	Result 3.5	PQL 0.094	3.770	0	93.8	61.9	146	%RPD	RPDLIMIL	Quai
Prep Date: Analyte Benzene Foluene	3.5 3.6	PQL 0.094	3.770 3.770	0	93.8 96.2	61.9 70	146 130	%RPD	RPDLIMIC	Qual

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 24 of 27

P Sample pH Not In Range

RL Reporting Detection Limit Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1704732

19-Apr-17

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

Sample ID 1704732-020ams

SampType: MS

TestCode: EPA Method 8260B: Volatiles Short List

LowLimit

70

70

Client ID: WW-SS01

Batch ID: **B42189** 

RunNo: 42189

Prep Date:

Analysis Date: 4/19/2017

1.885

1.885

SeqNo: 1326214

Units: mg/Kg

HighLimit

Analyte Surr: Dibromofluoromethane Surr: Toluene-d8

Result PQL 1.7 1.8

%REC SPK value SPK Ref Val 90.6

130

130

Qual

**RPDLimit** 

Sample ID 1704732-020amsd

SampType: MSD

97.1

TestCode: EPA Method 8260B: Volatiles Short List

%RPD

Client ID: WW-SS01

Batch ID: **B42189** 

RunNo: 42189

Prep Date:	Analysis D	Date: 4/	19/2017	8	SeqNo: 1	326215	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	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.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

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

Value above quantitation range

Analyte detected below quantitation limits

Page 25 of 27

P Sample pH Not In Range

RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

Conoco Phillips Client: San Juan 27-5 137P Project: 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 %RPD **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 520 500.0 104 70 130 Sample ID 2.5ug gro Ics 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 HighLimit Result POL SPK value SPK Ref Val %REC I owl imit %RPD **RPDLimit** Qual Analyte Gasoline Range Organics (GRO) 27 5.0 25.00 0 110 70 130 Surr: BFB 540 500.0 108 70 130 Sample ID rb3 TestCode: EPA Method 8015D Mod: Gasoline Range SampType: MBLK Client ID: **PBS** Batch ID: D42189 RunNo: 42189 Prep Date: Analysis Date: 4/19/2017 SeqNo: 1326241 Units: mg/Kg HighLimit %RPD **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit Qual 5.0 Gasoline Range Organics (GRO) ND Surr: BFB 520 500.0 104 70 130 TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID 2.5ug gro Ics2 SampType: LCS Client ID: LCSS Batch ID: D42189 RunNo: 42189 Prep Date: Analysis Date: 4/18/2017 SeqNo: 1326242 Units: mg/Kg SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result PQL LowLimit Qual Gasoline Range Organics (GRO) 26 5.0 102 25.00 70 130 520 500.0 70 Surr: BFB 105 130

Sample ID 1704732-020ams	g SampT	ype: MS	3	Test	tCode: El	PA Method	8015D Mod:	Gasoline l	Range	
Client ID: WW-SS01	Batch	ID: <b>D4</b> :	2189	R	RunNo: 4	2189				
Prep Date:	Analysis D	ate: 4/	19/2017	S	SeqNo: 1	326244	Units: mg/K	g		
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 26 of 27

WO#:

1704732

19-Apr-17

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1704732

19-Apr-17

Client:

Conoco Phillips

Project:

San Juan 27-5 137P

Client ID:

Prep Date:

WW-SS01

Sample ID 1704732-020amsd g SampType: MSD

TestCode: EPA Method 8015D Mod: Gasoline Range

Batch ID: **D42189** 

RunNo: 42189

Analysis Date: 4/19/2017

SeqNo: 1326245

Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 27 of 27

- P Sample pH Not In Range
- RL Reporting Detection Limit
- 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

	The state of the s		the state of the s	and the section of the control of	
Client Name:	Conoco Phillips Farmi	ngt Work Order N	umber: 1704732		RcptNo: 1
Received By:	Lindsay Mangin	4/18/2017 6:48:	00 AM	Storeby Hope	
Completed By:	Lindsay Mangin	4/18/2017 7:07:		Callet Manne	
	_	04/18/17	40 AW	Change Land	
Reviewed By:	ENM	04/10/11			
Chain of Cus	stody			V	
1. Custody sea	als intact on sample bottl	es?	Yes 🗌	No [	Not Present
2. Is Chain of	Custody complete?		Yes 🗹	No 🗌	Not Present
3. How was the	e sample delivered?		Courier		
Log In					
	empt made to cool the sa	amples?	Yes 🗸	No []	NA 🗆
_			p	171	P. I
5. Were all sai	mples received at a temp	perature of >0° C to 6.0°0	Yes 🗸	No L	NA [
6. Sample(s) i	n proper container(s)?		Yes 🗸	No 🗌	
7. Sufficient sa	imple volume for indicate	ed test(s)?	Yes 🗸	No 🗀	
	s (except VOA and ONG		Yes 🗸	No 🗌	
	vative added to bottles?	,	Yes 🗌	No 🗸	NA []
10. VOA vials h	ave zero headspace?		Yes 🗀	No []	No VOA Vials ✓
	ample containers receive	ed broken?	Yes []	No 🗸	
11, 110.0 a.i.y a					# of preserved bottles checked
12.Does paper	work match bottle labels	?	Yes 🗹	No []	for pH:
	pancies on chain of cust			[-]	(<2 or >12 unless noted) Adjusted?
	s correctly identified on C	-	Yes 🗹	No []	Adjusted:
. —	nat analyses were reques ding times able to be me		Yes V	No []	Checked by:
	customer for authorization		tes (A)	NO 11	
	lling (if applicable)			13	r "-1
16. Was client n	otified of all discrepancie	es with this order?	Yes L	No L.i	NA 🗸
Person	n Notified:	Contract Public Hosting Honder	Pate:	ANDERSTEEN CELAROSION SERVICE.	
By Wh	nom:	A STANSON OF THE PROPERTY OF THE PARTY OF TH	/ia: [] eMail []	Phone Fax	In Person
Regar	Preparation		ut talah kitalah kital	NEWNALDRAFTS BLOCK DATE SHOW OF CHIEF	namento-productoro mangrapo por partenamento.
	Instructions:				
17. Additional r	emarks:				
18. Cooler Info		1			
Cooler N	o Temp °C Condition	on Seal Intact Seal N	lo Seal Date	Signed By	
L'	1.7	103			

C	hain-	of-Cu	stody Record	Turn-/	Around	Time:																	
Client:			PHILLIPS	  □ St	andard	A	*Rush	Samedax		i de la constante de la consta											NT	RY	
		. 1			t Name	ə:	Ttabil.													KA	10	KY	
Mailing	Address	552°	unter	-	San	Telar	1 27	Samedax 1-5137P									nent						
				Projec						49	01 Ha	awkir	ns N	E -	Alb	uque	erque	e, Ni	VI 87	109			
	ra	imin at	on NM 87401	110,60	11 7	الارم	700	TLM)		Te	l. 50	5-34	5-39	-		-			4107				
Phone :	#: 51	25 - 2	185-1607	wo	POS	QHI.	470	)						Α			Req	uest		4			
email o	r Fax#:	lisahu	nter@ conocophillips Com	Projec	t Mana	iger:	anni	Bums	5	+ TPH (Gas only)	TPH99015B/GRONDRO/MRO					Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	ø						
							1	, 50. 1	+ TNK'S (8021)	as	7		- 1	(3)		24.S	PCB's						
□ Stan			☐ Level 4 (Full Validation)	1					S'S'	5	8			SIMS)		Z	2 P						
Accredi		C Otho		Samp	ler: T	osh	Ada	ms		点	0/6	=	<del>?</del>	8270		8	8081 Pesticides / 8082					2	ź
□ NEL		□ Othe	Pr	Onle	ere vond	, ⊼(Yes		III November	+	+	(K)	TPH (Method 418.1)	EDB (Method 504.1)		8	õ	38 /		8270 (Semi-VOA)			Air Dubbled V. Car M.	5
□ EDD	(Type)_			Samp	le Tem	perature			BTEX + MIXE	BTEX + MTBE	X	B	DG DG	PAH's (8310 or	RCRA 8 Metals	5	cide	<u>8</u>	اِ ا				S
				Con	tainer	Preser	vative		/≥	<u>\</u> ∑	015	let	Vet	(83	8 8	F	est	8260B (VOA)	Sen		1	1 2	DDIE
Date	Time	Matrix	Sample Request ID		and #	Ту		HEALING	X	Ä	£ 1	F	8	T,	₽ B	ons	31 F	8	02			1	ĬΩ
									BT	BT	T	且		PA	8	An	808	82(	82		$\perp$	1.5	A
-17-17	1320	Soil	TSP-01	(2)4	102	(00	1	-001	$\boxtimes$		X												
	1322		TSP-02					-002	X		X												
	1324		TSP-03					-003	X		X												
	1326		TSP-04					-004	X	Ш	X												_
	1378		TSP-05		1			-065	X		X		_							$\perp$	$\perp$		_
	1330		TSP-06				8	-006	X		X												_
	1337		TSP-07					-007	X		X									$ \bot $			_
	1334		TSP-08					-608	X		X	_								_	$\perp$		_
	1336		TSP-09				1	-009	X		$\langle \rangle$	_								$\dashv$	_	$\rightarrow$	_
	1333		TSP-10					-010	X,		X									$\dashv$	$\perp$	$\perp$	_
	1258		EW-SSOD					-011	X		X									$\perp$			_
V	1256		SW-SS92	0	<i>-</i>		G	-017	$\geq$		X												
Date:	Time:	Relinquish	ed by:	Receive	ed by:	)		Date Time	Rer	nark	s:	C.	1:	<u>د.</u>									
1/17 la	1500	10	V Clouds	1/4	whi	Jal	1	1/7/17 1530				<b>C</b> ,	4	20	es 6	14	13/11	.10	m				
Date:	Time:	Relinquish	ed by:	Receive	ed by	1		Date Time					1	16c	LUC	6	Han	11.0	JM JM	Į.			
מאח	2020	lile	it was		1		5	4/18/17-02-18					ì	ad	lam	50	140	nU.	COI	7			
	f necessary,	samples sub	mitted to Hall Environmental may be sub	contracted	to other a	coredited la	aboratorie		s possi	bility.	Any su	b-cont	racted								report		_

	hain-	ot-Cu	istody Record	Turn-/	Arouna	i ime:										NIX.		-	BIB	45			
Client:	Pana	co P	hillips	□ St	andard	点	Ŕush	Sameday													NT	AL	
		Hun		Projec	t Name	): ]	, ,	37 P			1					ironr							•
Mailing	Address:	5505	Ushuy 64	1 5	sin Ju	-en 27	51	37 7		40	04 LJ								м 87 <sup>.</sup>	100			
	Fac	ماری د	n, UM 87401	Projec	ct #: App	RO:	VAT	TIM			d. 50						-		4107				
Phone #	+ 5	0525	8-1607	WO	# 2	204	790			16	i. 50	J-J4	J-38	-	-	/sis							
email or			nter@conacophilips.							3	<b>FO</b>												
QA/QC F		15 40	Con	2		De	enny	Burns	021)	on s	₹ K					S,	B's						
□ Stan	_		☐ Level 4 (Full Validation)				/		TN/6's (8021)	TPH (Gas only)	DRO / MRG			SIMS)		Po	PCB's						
Accredi				Samp	ler: J	ash.	Adar	n5	3	핆	70/	=	=			102,	082						
□ NEL		□ Othe	Pr		ler: J				+	+	8	28	904	r 8270	m	03,1	8/8		8				Or N
□ EDD	(Type)			Samp	le Temp	erature	劉打	+	(FE)	핊	(9)	od 4	po	0 or	etals	Ž	cide	F	<u></u>				5
*				Con	tainer	Preser	vative	423	BTEX+ WARE	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310	RCRA 8 Metals	Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
Date	Time	Matrix	Sample Request ID		and #	Тур		HEAL No.		EX	H 8	F	B	T,S	RA	ions	31 P	30B	02				Buk
4-17-17		Soil						1701732	6	ВТ	_	티		PA	8	An	08	82(	82.	$\perp$	_		Ąi
4-17-17	254	501	SEF-SSO2	(2)4	02	(0	0	-013	X		X												
	1252		SW-5500033					-014	X		X												
	1244		SW-SSOH					-015	X		X											T	
	1300		NW-SSOW					-016	X		X									$\Box$			
	1248		NW- SS03					-019	X		X											1,.	
	1246		SWF-SSOI					-018			X											T	T
	1302		CF-5501					-019			X										-	٠,	+
	1250	1/	WW-5501	1	,	1		-020	Ť												$\top$	$\top$	$\top$
	1200							000												$\neg$	$\top$	$\top$	十
																					$\top$		十
-																					$\top$	$\top$	十
			. 1																		$\top$		$\top$
Date:	Time:	Relinquish	ed by:	Receive	ed by:	, 1		Date Time	Rer	nark	s:	, •	lisa	 2									
9-17-19	1530	7	4 WMS	V hi	usth	المل	rete	9/17/17 1530				ر.	ag	er	el	ten	V. C	0	n on cor				
Date:	Time:	Religiouish	ed by:	Receiv	ed by:	1		Date Time				d	2	rn s	0	Ite	NV.	CC	CUK				
7/17/17	2020	1911	With Walk		1	X	0	49/18/1702-18				1	ed	OUN,	5 G	11	eni	), C	.OY	ソ			8
11	necessary,	samples sub	mitted to Hall Environmental may be sub-	contracted	to other ac	credited la	boratorie	es. This serves as notice of this	s possi	bility.	Any su	b-cont	racted	d data	will be	e clear	ty nota	ted or	the ar	nalytica	l 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips

Client Sample ID: SW-SS05 San Juan 27-5 137P

Lab ID: 1704960-001

Project:

Collection Date: 4/20/2017 1:42:00 PM

Matrix: MEOH (SOIL) Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLI	NE 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 RA	NGE 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 S	HORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 27 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

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) 4/24/2017 2:57:08 PM 19 mg/Kg 5 C42325 Surr: BFB 117 %Rec 4/24/2017 2:57:08 PM 70-130 C42325 Analyst: JME **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) 340 4/21/2017 9:50:50 AM 98 mg/Kg 31359 Motor Oil Range Organics (MRO) ND 490 mg/Kg 4/21/2017 9:50:50 AM 31359 Surr: DNOP 0 70-130 %Rec 4/21/2017 9:50:50 AM 31359 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: DJF 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 4/24/2017 2:57:08 PM B42325 Xylenes, Total 12 0.38 4/24/2017 2:57:08 PM B42325 mg/Kg 5 Surr: 1,2-Dichloroethane-d4 98.8 %Rec 70-130 5 4/24/2017 2:57:08 PM B42325 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 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 %Rec 4/24/2017 2:57:08 PM 70-130 B42325

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Conoco Phillips

Project: San Juan 27-5 137P

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

Client Sample ID: TSP-11

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: GASOL	INE 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 RA	NGE 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: TSP-12

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

**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: GASOLI	NE 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 RA	NGE 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 S	HORT 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: TSP-13

Project: San Juan 27-5 137P

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

Lab ID: 1704960-005

**CLIENT:** Conoco Phillips

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: GASOL	NE 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 RA	NGE 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 S	HORT 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

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 Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLII	NE 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 RA	NGE 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 S	HORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

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 Qu	al 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 RANG	E 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 SHO	RT 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: TSP-16

Project: San Juan 27-5 137P

Collection Date: 4/20/2017 1:10:00 PM

Lab ID: 1704960-008

**CLIENT:** Conoco Phillips

Matrix: MEOH (SOIL) Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL (	Qual U	U <b>nits</b>	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 SHO	RT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### 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: GASOLI	NE 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 S	HORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 9 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1704960

Date Reported: 4/26/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips Client Sample ID: TSP-18

San Juan 27-5 137P Collection Date: 4/20/2017 1:14:00 PM Project:

Lab ID: 1704960-010 Matrix: MEOH (SOIL) Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL Q	ual 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 RANG	E 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 SHO	RT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 10 of 27 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/26/2017

**CLIENT:** Conoco Phillips

Client Sample ID: TSP-19

San Juan 27-5 137P Project:

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: GASOL	NE 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 S	HORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limit Page 11 of 27 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

**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 Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE I	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	3			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 SHOP	RT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limit Page 12 of 27 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### 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: GASOL	INE 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 RA	ANGE 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 13 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

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 Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLI	NE 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 RA	NGE 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 S	HORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 14 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1704960

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

Date Reported: 4/26/2017

4/21/2017 11:57:33 AM A42292

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips Client Sample ID: TSP-23

107

Collection Date: 4/20/2017 1:24:00 PM Project: San Juan 27-5 137P Matrix: MEOH (SOIL)

Analyses Result **PQL Qual Units DF** Date Analyzed Batch **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) 20 mg/Kg 4/21/2017 11:57:33 AM R42292 Surr: BFB 88.6 70-130 %Rec 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 470 Motor Oil Range Organics (MRO) ND mg/Kg 4/21/2017 2:02:38 PM 31359 Surr: DNOP 0 70-130 %Rec 4/21/2017 2:02:38 PM 31359 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene 0.10 ND mg/Kg 5 4/21/2017 11:57:33 AM A42292 Toluene 0.20 0.55 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 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 70-130 %Rec 5 4/21/2017 11:57:33 AM A42292 63.6 Surr: Dibromofluoromethane 96.9 70-130 %Rec 4/21/2017 11:57:33 AM A42292

70-130

%Rec

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

#### **Qualifiers:**

Lab ID:

1704960-015

Surr: Toluene-d8

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 15 of 27 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

#### 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: GASOLI	NE 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 S	HORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 16 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### 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: GASOL	INE 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 S	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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 17 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLIN	E 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 RAN	IGE 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 SH	IORT 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. Analyte detected in the associated Method Blank D Sample Diluted Due to Matrix E Value above quantitation range Analyte detected below quantitation limits Page 18 of 27 H Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range R RPD outside accepted recovery limits RL Reporting Detection Limit

Sample container temperature is out of limit as specified

% Recovery outside of range due to dilution or matrix

### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: TSP-27

Project: San Juan 27-5 137P

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

**Lab ID:** 1704960-019

**CLIENT:** Conoco Phillips

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: GASOL	INE 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 S	HORT 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 19 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

**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 Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLII	NE 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 RAI	NGE 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 S	HORT 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.

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limit Page 20 of 27
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1704960

Date Reported: 4/26/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Conoco Phillips Client Sample ID: TSP-29

San Juan 27-5 137P Collection Date: 4/20/2017 1:36:00 PM **Project:** 

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: GASOLIN	IE 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 RAN	IGE 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 SH	ORT 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 21 of 27 J
- Sample pH Not In Range P
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Lab Order 1704960

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

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 Matrix: MEOH (SOIL)

PQL Qual Units Analyses Result **DF** Date Analyzed Batch **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: DJF Gasoline Range Organics (GRO) 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 4/21/2017 9:50:54 AM 100 mg/Kg Motor Oil Range Organics (MRO) ND 510 4/21/2017 9:50:54 AM 31360 mg/Kg 10 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 0.095 4/21/2017 11:05:43 AM A42279 ND mg/Kg 5 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 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:

Lab ID:

1704960-022

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 22 of 27 I
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1704960

26-Apr-17

Client:

Conoco Phillips

San Juan 27-5 137P

Project: San Juan	127-3 1371							
Sample ID LCS-31359	SampType:	LCS	Test	tCode: EPA M	ethod 8015M/D:	Diesel Rang	e Organics	
Client ID: LCSS	Batch ID:	31359	R	RunNo: <b>42271</b>				
Prep Date: 4/21/2017	Analysis Date:	4/21/2017	S	SeqNo: <b>132816</b>	Units: mg	ı/Kg		
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC Low	Limit 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	Test	tCode: EPA M	ethod 8015M/D:	Diesel Rang	e Organics	
Client ID: PBS	Batch ID:	31359	R	RunNo: <b>42271</b>				
Prep Date: 4/21/2017	Analysis Date:	4/21/2017	S	SeqNo: <b>132816</b>	Units: mg	ı/Kg		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC Low	Limit 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	Test	tCode: EPA M	ethod 8015M/D:	Diesel Rang	e Organics	
Client ID: PBS	Batch ID:	31360	R	RunNo: <b>42274</b>				
Prep Date: 4/21/2017	Analysis Date:	4/21/2017	S	SeqNo: <b>132840</b>	07 Units: mg	J/Kg		
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC Low	Limit HighLimit	%RPD	<b>RPDLimit</b>	Qual
Diesel Range Organics (DRO)								Quui
Diesel Kange Organics (DIVO)	ND	10						Quui
Motor Oil Range Organics (MRO)		10 50						Quui
				89.0	70 130			Quui
Motor Oil Range Organics (MRO)	ND	10.00	Test		- U		e Organics	Quui
Motor Oil Range Organics (MRO) Surr: DNOP	ND 8.9	10.00 LCS			70 130		e Organics	Quui
Motor Oil Range Organics (MRO) Surr: DNOP  Sample ID LCS-31360	ND 8.9 SampType:	10.00 LCS 31360	R	tCode: EPA M	70 130	Diesel Rang	e Organics	Quu
Motor Oil Range Organics (MRO) Surr: DNOP  Sample ID LCS-31360 Client ID: LCSS	ND 8.9 SampType: Batch ID:	10.00 LCS 31360 4/21/2017	R	tCode: <b>EPA M</b> o tunNo: <b>42274</b> SeqNo: <b>13284</b> 0	70 130	Diesel Rang	e Organics RPDLimit	Qual
Motor Oil Range Organics (MRO) Surr: DNOP  Sample ID LCS-31360 Client ID: LCSS Prep Date: 4/21/2017	SampType: Batch ID: Analysis Date: Result PC	10.00 LCS 31360 4/21/2017	R	tCode: <b>EPA M</b> o tunNo: <b>42274</b> SeqNo: <b>13284</b> 0	70 130 ethod 8015M/D:	Diesel Rang I/Kg : %RPD		
Motor Oil Range Organics (MRO) Surr: DNOP  Sample ID LCS-31360 Client ID: LCSS Prep Date: 4/21/2017 Analyte	SampType: Batch ID: Analysis Date: Result PC	10.00  LCS 31360 4/21/2017  QL SPK value	R S SPK Ref Val	tCode: EPA Mo RunNo: 42274 GeqNo: 132840 %REC Low	70 130 ethod 8015M/D: 08 Units: mg	Diesel Rang I/Kg : %RPD		

#### Qualifiers:

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

Page 23 of 27

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1704960** 

26-Apr-17

Client: Project:

Conoco Phillips San Juan 27-5 137P

Sample ID rb	Samp	уре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: PBS	Batcl	n ID: A4	2292	F	RunNo: 4	2292				
Prep Date:	Analysis E	Date: 4/	21/2017	8	SeqNo: 1	329136	Units: mg/K	(g		
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	Samp	уре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: PBS	Batcl	n ID: A4	2279	F	RunNo: 4	2279				
Prep Date:	Analysis D	Date: 4/	21/2017	8	SeqNo: 1	329640	Units: mg/K	(g		
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 Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
		, ,								

Sample ID 100ng Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: LCSS	Batch	1D: A4	2279	R	RunNo: 4	2279				
Prep Date:	Analysis D	ate: 4/	21/2017	S	SeqNo: 1	329641	Units: mg/K	ζg		
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 10	00ng Ics	SampTyp	e: LC	S	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: LC	css	Batch II	D: <b>A4</b>	2292	F	RunNo: 4	2292				
Prep Date:		Analysis Dat	e: <b>4/</b> 2	21/2017	8	SeqNo: 1	329730	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 24 of 27

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1704960

26-Apr-17

Client: Project:

Conoco Phillips San Juan 27-5 137P

Sample ID 100ng Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	_
Client ID: LCSS	Batch	1D: A4	2292	F	RunNo: 4	2292				
Prep Date:	Analysis D	ate: 4/	21/2017	5	SeqNo: 1	329730	Units: mg/k	(g		
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	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260B: Volat	tiles Short	List	
Client ID: PBS	Batch	1D: <b>B4</b>	2325	F	RunNo: 4	2325				
Prep Date:	Analysis D	ate: 4/	24/2017	S	SeqNo: 1	330691	Units: mg/K	g		
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 Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: LCSS	Batch	n ID: <b>B4</b>	2325	F	RunNo: 4	2325				
Prep Date:	Analysis D	ate: 4/	24/2017	5	SeqNo: 1	330692	Units: mg/K	(g		
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 25 of 27

P Sample pH Not In Range

RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

Client: Conoco Phillips Project: San Juan 27-5 137P Sample ID rb SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: PRS Batch ID: R42292 RunNo: 42292 Prep Date: Analysis Date: 4/21/2017 SeqNo: 1329146 Units: mg/Kg %REC %RPD **RPDLimit** Qual Result PQL SPK value SPK Ref Val LowLimit HighLimit Analyte Gasoline Range Organics (GRO) 5.0 ND Surr: BFB 490 500.0 97.3 70 130 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID rb Client ID: **PBS** Batch ID: D42279 RunNo: 42279 Analysis Date: 4/21/2017 Prep Date: 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 TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID 2.5ug gro lcs SampType: LCS 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 25.00 109 70 130 70 Surr: BFB 510 500.0 101 130 Sample ID 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range LCSS Batch ID: R42292 RunNo: 42292 Client ID: Prep Date: Analysis Date: 4/21/2017 SeqNo: 1329727 Units: mg/Kg SPK value SPK Ref Val Analyte Result PQL %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 28 5.0 25.00 111 70 130 Surr: BFB 510 500.0 102 70 130 Sample ID rb SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: RunNo: 42325 PBS Batch ID: C42325 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 5.0 530 Surr: BFB 500.0 106 70 130 TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID 2.5ug gro Ics SampType: LCS Client ID: LCSS Batch ID: C42325 RunNo: 42325 Units: mg/Kg Prep Date: Analysis Date: 4/24/2017 SeqNo: 1330708

#### Qualifiers:

Analyte

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Result

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

LowLimit

HighLimit

%RPD

E Value above quantitation range

J Analyte detected below quantitation limits

Page 26 of 27

Qual

**RPDLimit** 

WO#:

1704960

26-Apr-17

P Sample pH Not In Range

SPK value SPK Ref Val %REC

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1704960

26-Apr-17

Client:

Conoco Phillips

Project:

San Juan 27-5 137P

Sample ID 2.5ug gro Ics

SampType: LCS

TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID:

LCSS

Batch ID: C42325

5.0

RunNo: 42325

Prep Date:

Analysis Date: 4/24/2017

SeqNo: 1330708

109

Units: mg/Kg

Analyte
Gasoline Range Organics (GRO)
Surr: BFB

Result	PQL
27	5.0
540	

25.00	
500.0	

SPK value SPK Ref Val

%REC	LowLimit
107	70

70	130	
70	130	

HighLimit	%RPD	RPDLimit	Qual
130			
130			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 27 of 27

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 49G1 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

## Sample Log-In Check List

RcptNo: 1 Client Name: Conoco Phillips Farm HW Work Order Number: 1704960 Received By: Lindsay Mangin 4/21/2017 7:38:00 AM Completed By: **Lindsay Mangin** 4/21/2017 7:57:17 AM 04/21/17 Reviewed By: Chain of Custody Not Present ✓ 1. Custody seals intact on sample bottles? No Yes No Not Present 2. Is Chain of Custody complete? Yes V 3. How was the sample delivered? Courier Log In 4. Was an attempt made to cool the samples? No Yes 5. Were all samples received at a temperature of >0° C to 6.0°C No NA Yes V 6. Sample(s) in proper container(s)? No Yes No 7. Sufficient sample volume for indicated test(s)? No . 8. Are samples (except VOA and ONG) properly preserved? NA 9. Was preservative added to bottles? No V Yes No VOA Vials V 10. VOA vials have zero headspace? Yes No 11. Were any sample containers received broken? No Yes # of preserved bottles checked for pH: 12. Does paperwork match bottle labels? No (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? 13 Are matrices correctly identified on Chain of Custody? No 14. Is it clear what analyses were requested? No Checked by: 15. Were all holding times able to be met? No Yes V (If no, notify customer for authorization.) Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? No NA V Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition | Seal Intact | Seal No Seal Date 1.3 Good

	hain-	of-Cu	stody Record	lum-	Around	Time:									_							
Client:	Cono	so Ph	illips	o s	tandard	×	Rush	Same day		550											NT/	RY
		Hu	,	Proje	ct Name	2.7		,			100						nent					
Mailing			UShwy 64.	1 3	a. Juc	un ed 7	3	1371		49	11 H								M 87	100		
	Fac	Mineto	NN 87401	Proje	ct #: 4p	0919	:KA	ITLM			1. 50								4107			
Phone	#: 5	25-38	5-1607	WO	#22	041	740	)		77.	1-7-	Test.	1-11				Req		_			WEST
Name and Address of the Owner, where the Party of the Owner, where the Party of the Owner, where the Owner, which is the Owner, which	r Fax#: 1	sa.hu	nterie conocophillips co	Proje	ct Mana	ger:			BTEXT MINE + TMP'S (8021)	3	0					(7)					T	TT
QA/QC	Package:		1			De	my	Burns	021	S Or	MA			3		4.80	PCB's					
☐ Stan	dard		☐ Level 4 (Full Validation)						, (8	69	8			SIMS)		РО,	2 2					
Accred		- 0		Sam	the state of the s	osh			<b>S</b>	F	0/	=	F	_		NO <sub>2</sub>	808					=
□ NEL		□ Othe	r	On lo	Artic Street	-		O No	+	+	8	418	504	n 82	S	03	) SE		(g)			0.0
□ EDD	(Type)_			Sam	ole Tem	peratur	e ji	3	×	TBE	A.	poq	pou	100	Aeta	5	icide	(AC	-i-			\ \S
Date	Time	Matrix	Sample Request ID	Cor	ntainer	Prese	vative	HEAL No.	7 10	+	3015	Met	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
Date			Sample Request ID	Тур	and#	Ту	pe		圖	EX	퓠	포	98(	AH's	CRA	noir	118	909;	079			l lag
12- 17	1742	1	01.00	(1) /			1	7904960	(B)	œ	E	F	Ш	9	œ	Ā	8	8	8	_	+	4
1-20-17	-		SW-5505	(1)40z. (00)					X		X	_							$\square$	_	+	+
1391	176V		SW-5506					-007	X.		X,										$\perp$	$\perp$
	1300		TSP-11					-003	X		$\times$											
	302		TSP-12					-004	X		X											
	1304		TSP-13					-005	X		X											
1	1306		TSP-14					-006	X		X											
1	1308		TSP-15					-001	X		X											
1	1310		TSP - 16					-008	X		X								$\Box$		$\top$	
	1312		TSP-17					-003	X		X										$\top$	
+	1314		TSP-18					-00	X		X									$\top$	$\top$	
	1316		TSP - 19					-011	X		X									$\top$	+	
1	1318	1	TSP-20	\	V	V	,	-012	X		X										+	
Date:		Relinquish	ed by:	Receiv	ed by:			Date Time	Ren	nark	3: /	۷:	lisa	2								
-10-17	1515	1 /m	d adus	1/2	Must	= U	all	= 4/20/1 1515				<	200	gere	01	ten	v.c nv. (	on	1			
Date:		Relinquish	ed by:	Recei	red by:	2/		/ Date Time	1			d	bu	کس	0	Her	10.0	(0)	7			
tholor	1940	1 m	etulouse	0	V	A	041	7/17/0738				)		ung	0	1 te	nv.	(0	17 }			
	necessary,	samples subr	milted to Hall Environmental may be subc	contracte	d to other a	credited !	boratori	es. This serves as notice of the	s possil	oility.	Any su	b-cont	racted	data	will be	clear	y nota	ited or	the ar	nalytical	report	

C	hain-	∙of-Cu	istody Record	Turn-Aroun	d Time:				0					/TF					
Client:	Con	1000	& Phillips	☐ Standa	rd & Ru	sh same day												TO	
	Li	sa Ho	nter	Project Nar							ww.h						1		
Mailing	Address	5525	US Huy 64	- san j	nan ard	1511		490	01 H:	awkin							109		
	Fas	minat	on Non 87401	Project #:	pp./PO: K	AITLM	1			5-345				-		410			
Phone #	505	5- 28S	-1607		12041790							Ana						100	13.3
			nter econocophillips.	Project Ma	nager: Donn	v Burns	_	oly)	/ĝ		Т	Т	04)					$\top$	
QA/QC F			COM			/ 54.0	TMP'S (8021)	IS OI	3		ĺ ū	5	3,30	PCB's					
⊠ Stan			☐ Level 4 (Full Validation)				S.S.	(G	8		CINAC		3,PC	2 P(					
Accredit  ☐ NEL		□ Othe	ar'	THE RESERVE OF THE PERSON NAMED IN	Josh Ada		2	TPF		=			2	8082					î
□ EDD		LI Othe	er'	On Ice:	Yes moerature:	□ No	Ш.	<del>+</del>	GR(	418	200	Sie	S.	les /		VO/			Yor
Date	Time	Matrix	Sample Request ID	Container Type and	r Preservati		RTEX MAKE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GROX DRG) (MRO)	TPH (Method	EDB (Method 504.1)	RCRA 8 Metals	Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
-20-17	1300	Soil	TSP-21	(1)402	cool	-0/3	X	_	X										
	1322		TSP-22			-014	X		X										
	B24		TSP-23			-015	X		X										
	1326		TSP-24			-016	X		X										
	1328		T>P-25			-017	X		×										
	1330		TSP-26			-018	X		X										
1	1332		TSP-27			-019	×		X										
	1334		TSP-28			-020	×		X										
Y	1336	V	TSP-29	4	1	-021	X		X										
W 1341	467a	1	SWF-5502	1		-022	X		X										
	¥																		
-				Descinden		Date Toro													
Date: 1-20-17 Date: 4/26/7	Time: )515 Time:	Relinquish	in adult	Received by:	+ Ket	Date Time  4/28/17 15/5  Date Time  14/21/17 0738	Ken	narks	s:	۷: ر	lisa doi	jero arn:	elte se se	l ter	nv.	CO	n T		
If at	necessary,	samples sub	mitted to Hall Environmental may be sub-	contracted to othe	r accredited labora	tories. This serves as notice of thi	s possi	bility.	Any su								_	report.	



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

OrderNo.: 1705071

May 05, 2017

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

1 /1/1

RE: San Juan 27-5 #137P

### 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order 1705071

Date Reported: 5/5/2017

### Hall Environmental Analysis Laboratory, Inc.

**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: 1

1705071-001

Matrix: SOIL

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

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst: <b>JME</b>
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 RAM	NGE				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
<b>EPA METHOD 8021B: VOLATILES</b>					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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1705071

Date Reported: 5/5/2017

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: South Vadose

Project: San Juan 27-5 #137P

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

Lab ID: 1705071-002

**CLIENT:** Conoco Phillips

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

Analyses	Result	PQL (	Qual U	J <b>nits</b>	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S				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	2	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 RAN	IGE					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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1705071

05-May-17

Client: Project: Conoco Phillips

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

POL

RunNo: 42525

Prep Date:

Analysis Date: 5/4/2017

8.1

SeqNo: 1337677

Units: %Rec

5/4/2017

HighLimit

Analyte Surr: DNOP Result

SPK value SPK Ref Val 10.00

LowLimit

70

130

**RPDLimit** 

Qual

Sample ID LCS-31564

SampType: LCS

%REC

81.1

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

SPK value SPK Ref Val

%REC

HighLimit 70

%RPD **RPDLimit**  Qual

Surr: DNOP

Client ID:

4.6

Result

83

4.5

5.000

92.2

130

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Sample ID MB-31549

Batch ID: 31549

PQL

PQL

RunNo: 42525

Units: mg/Kg

%RPD

Analyte

Surr: DNOP

Client ID:

Prep Date: 5/3/2017

PBS

Analysis Date: 5/4/2017

SPK value SPK Ref Val

SeqNo: 1338403

HighLimit

%RPD

**RPDLimit** 

Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)

ND 10 ND

50

834

%REC

70

LowLimit

Qual

Sample ID LCS-31549

SampType: LCS

TestCode: EPA Method 8015M/D: Diesel Range Organics

130

Prep Date:

LCSS 5/3/2017

Batch ID: 31549 Analysis Date: 5/4/2017

RunNo: 42525

SeqNo: 1338404

90.5

Units: mg/Kg

Qual

Analyte Diesel Range Organics (DRO) Surr: DNOP

Result PQL 44 10

SPK value SPK Ref Val 50.00 5.000

10.00

%REC 0 88.2

LowLimit HighLimit 63.8 70

116 130 %RPD

**RPDLimit** 

Page 3 of 5

Qualifiers:

S

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

В Analyte detected in the associated Method Blank

Value above quantitation range Analyte detected below quantitation limits

P Sample pH Not In Range

R RPD outside accepted recovery limits

RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

Analysis Date: 5/3/2017

PQL

Result

1000

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	i
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		

SPK value SPK Ref Val %REC

1000

Qualifie	rs:

Prep Date: 5/2/2017

Analyte

Surr: BFB

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

SeqNo: 1337222

103

LowLimit

54

Units: %Rec

150

%RPD

**RPDLimit** 

Qual

HighLimit

Page 4 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705071

05-May-17

Client: Project: Conoco Phillips

San Juan 27-5 #137P

Sample ID MB-31528	SampT	ype: ME	BLK	Tes							
Client ID: PBS	Batch	Batch ID: 31528			RunNo: 4						
Prep Date: 5/2/2017	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	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch ID: 31528 RunNo: 42521									
Prep Date: 5/2/2017	Analysis D	Date: 5/	3/2017	8	SeqNo: 1	337246	Units: mg/k	(g		
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: I	MBLK	Tes	tCode: E	PA Method	8021B: Volat	iles			
Client ID: PBS	Batch ID:	31527	F	RunNo: 4	2521					
Prep Date: 5/2/2017	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	Test	tCode: El	tiles				
Client ID: LCSS	Batch ID: 31527 RunNo				2521				
Prep Date: 5/2/2017	Analysis Date:	S	SeqNo: 1	337253	Units: %Red	С			
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Curry A Dramafluarahanzana	1.1	1 000		111	66.6	122			

Surr: 4-Bromofluorobenzene 1.000

### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix S

B Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 5 of 5

P Sample pH Not In Range

RL Reporting Detection Limit



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 Philiips Farmingt	Work Order Number	: 1705071		RcptNo:	1
Received By:	Sophia Campuzano	5/2/2017 8:00:00 AM		Sophie Jayan	-	
Completed By:	Andy Jansson	5/2/2017 9:04:06 AM		myron		
Reviewed By:	ENM	05/02/17				
Chain of Cus	tody					
1. Custody sea	als intact on sample bottles?		Yes	No 🗆	Not Present	
2. Is Chain of C	Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the	e sample delivered?		Courier			
<u>Log In</u>						
4. Was an atte	empt made to cool the samples	?	Yes 🗹	No 🗆	NA 🗆	
5. Were all sar	nples received at a temperatur	e of >0° C to 6.0°C	Yes 🗹	No 🗆	na 🗆	
6. Sample(s) is	n proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sa	mple volume for indicated test	(s)?	Yes 🗹	No 🗆		
8. Are samples	(except VOA and ONG) prope	erly preserved?	Yes 🗹	No 🗆		
9. Was preserv	vative added to bottles?	Yes	No 🗹	NA 🗆		
10. VOA vials ha	ave zero headspace?	Yes 🗌	No 🗆	No VOA Vials		
11. Were any sa	ample containers received brol	Yes 🗀	No 🗹	# of preserved		
	work match bottle labels?	Yes 🗹	No 🗆	bottles checked for pH:	>12 unless noted)	
	pancies on chain of custody) correctly identified on Chain o	Yes 🗸	No 🗆	Adjusted?	- 12 diness notary	
	at analyses were requested?	Yes 🗹	No 🗆	_		
15. Were all hok	ding times able to be met?	Yes 🗸	No 🗆	Checked by:		
(*,,	,					
Special Hand	ling (if applicable)					
16. Was client n	otified of all discrepancies with	this order?	Yes	No 🗆	NA 🗹	
	Notified:	Date				
By Wh	S STATE OF THE STA	Via:	eMail	Phone Fax	☐ In Person	
Regard Client	ling:	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.		CONTRACTOR	NO. STATE OF THE S	
17. Additional re	emarks:					
18. Cooler Info Cooler No			Seal Date	Signed By		

Chain-of-Custody Record		Tum-Around Time:  X Standard Rush  Project Name:  SAN JUAN 27-5#137P  Project #: WO # 220 41740  Approver: KAITLM  Project Manager:				i de					_										
Client: Conoco Pificips						HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com															
Mailing Address: 5525 US HWY 64  Farmington, NM 87401  Phone #: 505-285-1607  email or Fax#: 1160-huntal@unaccomlines.com																					
						4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107															
														ues							
						(%	Ô					04)				T	T	П	٦		
QNQC Package:  Standard		Danny Burns			HARS'S (8021)	(Gas or	O / MF			(SMIS)		PO4,SC	PCB's								
Accreditation		Sampler: E. Skyles			種	F	JO!	=	=	Z 0.2		VO2,	085					:			
□ NEL		□ Othe	r	On ice: X Yes  No				+	80	118	50	r 82	co.	03	8/8		(A)				5
□ EDD (Type)		Sample Tem	perature: 4_	3		TBE	3 (G	po	po	00	etal	N.	cide	8	1			5	٥		
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + THE	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,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)			41.44.64	Air Bubbles (Y or N)
11/17	1055	Soil	North Vadose	1-402	cool	-001	X		X												
51/17	1100	Suil	South Vadose	1-402	cove	-002	X		Х												-
																		$\perp$			
																		$\mp$	F		
																			+		1
																		+	+		
Date:	Time:	Relipedishe	d hv	Regived by:	,	Date Time	Da											$\pm$			
5/1/7 Date:	[305]	Relinquishe	54	Received by:    Date   Time				Remarks: cc: lisa aager eltenv.com aburnse Henv.com													
Slila	1806	Mis	the Wasters	Sophi	Cyr	- 05/02/17 08a	2													-	
,	riecassary.	semples subn	nitted to Hall Environmental may be subc	contracted to other at	credited laboratorie	s. Inis serves as notice of thi	es pessi	citity.	Any su	io-cont	racte	data.	will be	e clear	Ty note	ated or	the an	alytical r	sport.		