

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☒ Final Report

Name of Company <b>Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 258-1607</b>
Facility Name: <b>Jicarilla 150 8E</b>	Facility Type: <b>Gas Well</b>

Surface Owner <b>Jicarilla</b>	Mineral Owner <b>Jicarilla (Contract 150)</b>	API No. <b>3003923479</b>
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**LOCATION OF RELEASE**

Unit Letter <b>I</b>	Section <b>02</b>	Township <b>26N</b>	Range <b>02W</b>	Feet from the <b>1710</b>	North/South Line <b>South</b>	Feet from the <b>810</b>	East/West Line <b>East</b>	County <b>Rio Arriba</b>
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Latitude **36.512915** Longitude **-107.321763**

**NATURE OF RELEASE**

Type of Release <b>Condensate</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>50 c/yds</b>
Source of Release <b>Below Grade Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>3/31/2017 @ 10:00 a.m</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>N/A</b>	
By Whom? <b>N/A</b>	Date and Hour <b>N/A</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	

**OIL CONS. DIV DIST. 3**

**MAY 25 2017**

If a Watercourse was Impacted, Describe Fully.\*  
**N/A**

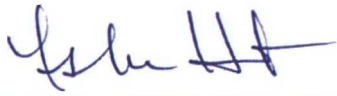

Describe Cause of Problem and Remedial Action Taken.\*

**During a facility strip in preparation for Recomplete work on the well, historic contamination was encountered beneath equipment.**

Describe Area Affected and Cleanup Action Taken.\*

**Historic hydrocarbon impacted soil was found during a facility strip for the subject well. The excavation was 15' x 17' x 5' in depth and 50 yds of soil was transported to IEI land farm. Based on distance to ground and surface water this location was risk ranked for 1000ppm TPH. Five-point composite samples were collected from four separate walls and base. Analytical results were below NMOCD Action Levels – no further action required. The soil sampling report is attached for review.**

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

Signature: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Lisa Hunter</b>		Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>		Approval Date: <b>6/22/2017</b>	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>		Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>May 18, 2017</b> Phone: <b>(505) 258-1607</b>			

\* Attach Additional Sheets If Necessary

**NVF1715032245**



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

April 28, 2017

Heather Woods

Rule Engineering LLC  
501 Airport Dr., Ste 205  
Farmington, NM 87401  
TEL: (505) 325-1055  
FAX

**OIL CONS. DIV DIST. 3**

**MAY 25 2017**

RE: Jicarilla 150 8E

OrderNo.: 1704A81

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/25/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704A81

Date Reported: 4/28/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project: Jicarilla 150 8E

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

Lab ID: 1704A81-001

Matrix: SOIL

Received Date: 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	12	9.7		mg/Kg	1	4/27/2017 6:18:12 PM	31429
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2017 6:18:12 PM	31429
Surr: DNOP	88.7	70-130		%Rec	1	4/27/2017 6:18:12 PM	31429
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/26/2017 7:04:07 PM	31417
Surr: BFB	94.3	54-150		%Rec	1	4/26/2017 7:04:07 PM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/26/2017 7:04:07 PM	31417
Toluene	ND	0.048		mg/Kg	1	4/26/2017 7:04:07 PM	31417
Ethylbenzene	ND	0.048		mg/Kg	1	4/26/2017 7:04:07 PM	31417
Xylenes, Total	ND	0.096		mg/Kg	1	4/26/2017 7:04:07 PM	31417
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	4/26/2017 7:04:07 PM	31417

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704A81

Date Reported: 4/28/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project: Jicarilla 150 8E

Collection Date: 4/24/2017 1:15:00 PM

Lab ID: 1704A81-002

Matrix: SOIL

Received Date: 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	82	9.4		mg/Kg	1	4/27/2017 6:46:13 PM	31429
Motor Oil Range Organics (MRO)	85	47		mg/Kg	1	4/27/2017 6:46:13 PM	31429
Surr: DNOP	89.4	70-130		%Rec	1	4/27/2017 6:46:13 PM	31429
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/26/2017 7:27:45 PM	31417
Surr: BFB	92.8	54-150		%Rec	1	4/26/2017 7:27:45 PM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/26/2017 7:27:45 PM	31417
Toluene	ND	0.047		mg/Kg	1	4/26/2017 7:27:45 PM	31417
Ethylbenzene	ND	0.047		mg/Kg	1	4/26/2017 7:27:45 PM	31417
Xylenes, Total	ND	0.094		mg/Kg	1	4/26/2017 7:27:45 PM	31417
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	4/26/2017 7:27:45 PM	31417

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704A81

Date Reported: 4/28/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project: Jicarilla 150 8E

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

Lab ID: 1704A81-003

Matrix: SOIL

Received Date: 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/27/2017 7:13:59 PM	31429
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/27/2017 7:13:59 PM	31429
Surr: DNOP	86.5	70-130		%Rec	1	4/27/2017 7:13:59 PM	31429
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/26/2017 7:51:15 PM	31417
Surr: BFB	93.9	54-150		%Rec	1	4/26/2017 7:51:15 PM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/26/2017 7:51:15 PM	31417
Toluene	ND	0.048		mg/Kg	1	4/26/2017 7:51:15 PM	31417
Ethylbenzene	ND	0.048		mg/Kg	1	4/26/2017 7:51:15 PM	31417
Xylenes, Total	ND	0.097		mg/Kg	1	4/26/2017 7:51:15 PM	31417
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/26/2017 7:51:15 PM	31417

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704A81

Date Reported: 4/28/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: Jicarilla 150 8E

Collection Date: 4/24/2017 1:30:00 PM

Lab ID: 1704A81-004

Matrix: SOIL

Received Date: 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	16	9.4		mg/Kg	1	4/27/2017 7:41:42 PM	31429
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/27/2017 7:41:42 PM	31429
Surr: DNOP	86.3	70-130		%Rec	1	4/27/2017 7:41:42 PM	31429
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/26/2017 8:14:47 PM	31417
Surr: BFB	107	54-150		%Rec	1	4/26/2017 8:14:47 PM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/26/2017 8:14:47 PM	31417
Toluene	ND	0.050		mg/Kg	1	4/26/2017 8:14:47 PM	31417
Ethylbenzene	ND	0.050		mg/Kg	1	4/26/2017 8:14:47 PM	31417
Xylenes, Total	ND	0.10		mg/Kg	1	4/26/2017 8:14:47 PM	31417
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/26/2017 8:14:47 PM	31417

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

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

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

Lab Order 1704A81

Date Reported: 4/28/2017

**CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-5**Project:** Jicarilla 150 8E**Collection Date:** 4/24/2017 1:40:00 PM**Lab ID:** 1704A81-005**Matrix:** SOIL**Received Date:** 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	11	9.4		mg/Kg	1	4/27/2017 8:09:34 PM	31429
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/27/2017 8:09:34 PM	31429
Surr: DNOP	85.0	70-130		%Rec	1	4/27/2017 8:09:34 PM	31429
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/26/2017 9:01:50 PM	31417
Surr: BFB	95.0	54-150		%Rec	1	4/26/2017 9:01:50 PM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/26/2017 9:01:50 PM	31417
Toluene	ND	0.046		mg/Kg	1	4/26/2017 9:01:50 PM	31417
Ethylbenzene	ND	0.046		mg/Kg	1	4/26/2017 9:01:50 PM	31417
Xylenes, Total	ND	0.092		mg/Kg	1	4/26/2017 9:01:50 PM	31417
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/26/2017 9:01:50 PM	31417

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A81

28-Apr-17

Client: Rule Engineering LLC

Project: Jicarilla 150 8E

Sample ID	LCS-31429	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31429	RunNo:	42400					
Prep Date:	4/26/2017	Analysis Date:	4/27/2017	SeqNo:	1333922	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.2	63.8	116			
Surr: DNOP	4.4		5.000		88.3	70	130			

Sample ID	MB-31429	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31429	RunNo:	42400					
Prep Date:	4/26/2017	Analysis Date:	4/27/2017	SeqNo:	1333923	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		83.2	70	130			

## Qualifiers:

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A81

28-Apr-17

Client: Rule Engineering LLC

Project: Jicarilla 150 8E

Sample ID	MB-31417	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31417	RunNo:	42378					
Prep Date:	4/25/2017	Analysis Date:	4/26/2017	SeqNo:	1332745	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	920		1000		92.0	54	150			

Sample ID	LCS-31417	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31417	RunNo:	42378					
Prep Date:	4/25/2017	Analysis Date:	4/26/2017	SeqNo:	1332746	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	97.2	76.4	125			
Surr: BFB	1000		1000		100	54	150			

Sample ID	1704A81-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	31417	RunNo:	42378					
Prep Date:	4/25/2017	Analysis Date:	4/26/2017	SeqNo:	1332752	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.7	23.58	0	125	61.3	150			
Surr: BFB	990		943.4		105	54	150			

Sample ID	1704A81-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	31417	RunNo:	42378					
Prep Date:	4/25/2017	Analysis Date:	4/26/2017	SeqNo:	1332753	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.47	0	115	61.3	150	8.80	20	
Surr: BFB	980		939.0		104	54	150	0	0	

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A81

28-Apr-17

Client: Rule Engineering LLC

Project: Jicarilla 150 8E

Sample ID	MB-31417		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31417		RunNo:	42378			
Prep Date:	4/25/2017		Analysis Date:	4/26/2017		SeqNo:	1332767	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	1.0		1.000		104	66.6	132			

Sample ID	LCS-31417		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31417		RunNo:	42378			
Prep Date:	4/25/2017		Analysis Date:	4/26/2017		SeqNo:	1332768	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.7	80	120			
Toluene	0.92	0.050	1.000	0	92.3	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	66.6	132			

Sample ID	1704A81-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-1		Batch ID:	31417		RunNo:	42378			
Prep Date:	4/25/2017		Analysis Date:	4/26/2017		SeqNo:	1332770	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9833	0	97.0	61.5	138			
Toluene	0.98	0.049	0.9833	0	99.6	71.4	127			
Ethylbenzene	1.0	0.049	0.9833	0	103	70.9	132			
Xylenes, Total	3.1	0.098	2.950	0	104	76.2	123			
Surr: 4-Bromofluorobenzene	1.1		0.9833		107	66.6	132			

Sample ID	1704A81-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-1		Batch ID:	31417		RunNo:	42378			
Prep Date:	4/25/2017		Analysis Date:	4/26/2017		SeqNo:	1332771	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.024	0.9506	0	102	61.5	138	1.79	20	
Toluene	1.0	0.048	0.9506	0	106	71.4	127	2.79	20	
Ethylbenzene	1.0	0.048	0.9506	0	109	70.9	132	3.02	20	
Xylenes, Total	3.2	0.095	2.852	0	110	76.2	123	2.92	20	
Surr: 4-Bromofluorobenzene	1.0		0.9506		108	66.6	132	0	0	

## Qualifiers:

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



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

## Sample Log-In Check List

Client Name: RULE ENGINEERING LL

Work Order Number: 1704A81

RcptNo: 1

Received By: Lindsay Mangin 4/25/2017 7:15:00 AM  
Completed By: Lindsay Mangin 4/25/2017 7:44:04 AM  
Reviewed By: ENM 04/25/17

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
6. Sample(s) in proper container(s)? Yes ☒ No ☐  
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒  
11. Were any sample containers received broken? Yes ☐ No ☒  
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
14. Is it clear what analyses were requested? Yes ☒ No ☐  
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Client: Rule Engineering, LLC

Mailing Address: 501 Airport Drive Suite  
205 Farmington, NM 87401

Phone #: 505 793 9486

email or Fax#: goss.juldez@ruleengineering.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other \_\_\_\_\_

☐ EDD (Type)

☐ Standard ☒ Rush 3-Day

Jicarilla 150 SE

Project Manager:

Heather Woods

Sampler: Justin Haber

On Ice: ☒ Yes ☐ No

Sample Temperature 7.1



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

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request


[illegible]

Date:	Time:	Relinquished by:
4/27/17	1650	<i>[Signature]</i>

Received by: Must Wait Date 4/24/17 Time 1700

Remarks:	Direct bill to Conoco Phillips
----------	--------------------------------

Date:	Time:	Relinquished by:
1/24/17	1833	Musta Wale

Received by:	Date	Time
	04/25	17:07:15

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