

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised April 3, 2017

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

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company Hilcorp Energy Company (HEC)	Contact Clara Cardoza
Address 9a CR 5793	Telephone No. 505-564-0733
Facility Name Albright 11	Facility Type Well

Surface Owner Federal	Mineral Owner Federal (SF-077865)	API No. 30-045-25702
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**LOCATION OF RELEASE**

Unit Letter I	Section 22	Township 29N	Range 10W	Feet from the 1862	North/South Line South	Feet from the 860	East/West Line East	County San Juan
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Latitude 36.7096252 Longitude -107.8660202 NAD83

**NATURE OF RELEASE**

Type of Release Historic hydrocarbon	Volume of Release Unknown	Volume Recovered n/a
Source of Release BGT	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 11/28/2017 09:00
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields NMOCD & Whitney Thomas BLM FFO	
By Whom? Lisa Hunter	Date and Hour 11/28/2017 12:57; 12/28/2017 13:05 left voicemail	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

NMOCD

APR 23 2018

Describe Cause of Problem and Remedial Action Taken.\*


DISTRICT III

Pulled the fiberglass BGT at the Albright 11 for upgrade to the steel pit tank for upcoming frac work and discovered impacted soil beneath tank. Contacted NMOCD to request a 5-point composite sample to be taken.

Describe Area Affected and Cleanup Action Taken.\*

Impacted soil removal begin on 11/29. Results from the 5-point composite were unfavorable so HEC continued excavating the visually impacted soil. Thursday Rule Engineering was called to the site to help with the delineation and field testing. Excavation to favorable field results was completed on Thursday 11/30 late afternoon and confirmation sampling was scheduled for Monday 12/4. **Total impacted soil removed to landfarm was 290 cubic yards. Attached are final lab results and excavation map.**

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: Clara Cardoza	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: <u>5/9/18</u>	Expiration Date:
E-mail Address: ccardoza@hilcorp.com	Conditions of Approval: <u>                    </u>	Attached <input type="checkbox"/>
Date: 04/16/2018 Phone: 505-564-0733		






\* Attach Additional Sheets If Necessary

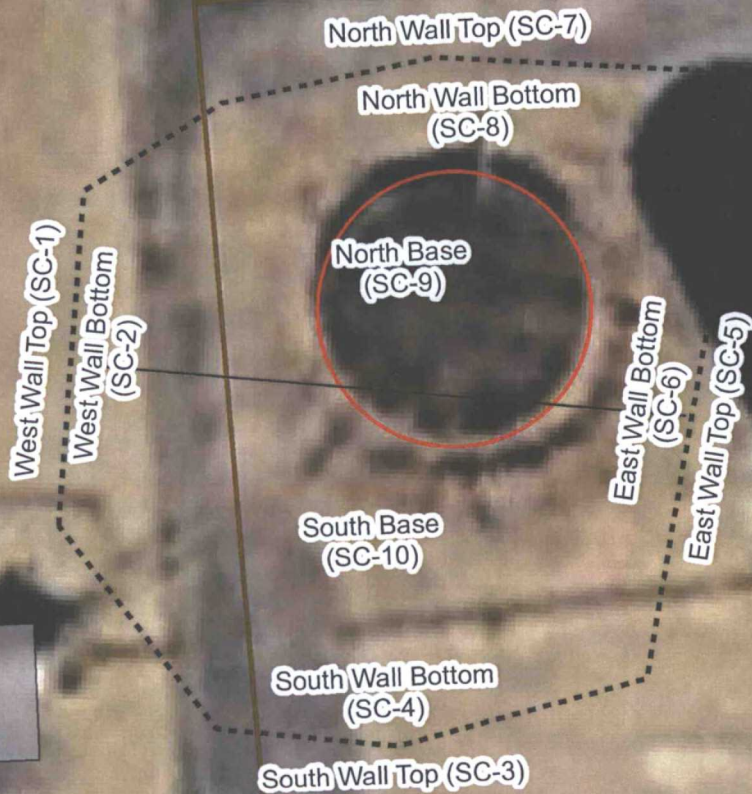
#NOF 173 423 0051

(21)



## Legend

-  Approximate Inner Wall of Excavation
-  Above Ground Storage Tank (AGT)
-  Below Grade Tank (BGT)
-  Berm
-  Separator



Source: Google Maps

**Rule** Engineering, LLC  
Solutions to Regulations for Industry

0 2.5 5 10 15 20  
1 inch = 10 feet



I-S22-T29N-R10W  
N36.70986, W107.86652  
San Juan County, NM  
API: 30-045-25702

**Figure A**  
**Site Assessment Map**  
Albright #11



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

December 13, 2017

Heather Woods

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

RE: HEC Albright 11

OrderNo.: 1712163

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 10 sample(s) on 12/5/2017 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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project: HEC Albright 11

Collection Date: 12/4/2017 11:20:00 AM

Lab ID: 1712163-001

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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	9.8		mg/Kg	1	12/12/2017 2:16:53 PM	35429
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/12/2017 2:16:53 PM	35429
Surr: DNOP	111	70-130		%Rec	1	12/12/2017 2:16:53 PM	35429
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/11/2017 9:58:55 AM	35409
Surr: BFB	120	15-316		%Rec	1	12/11/2017 9:58:55 AM	35409
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/11/2017 9:58:55 AM	35409
Toluene	ND	0.049		mg/Kg	1	12/11/2017 9:58:55 AM	35409
Ethylbenzene	ND	0.049		mg/Kg	1	12/11/2017 9:58:55 AM	35409
Xylenes, Total	ND	0.097		mg/Kg	1	12/11/2017 9:58:55 AM	35409
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	12/11/2017 9:58:55 AM	35409

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
	PQL Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project: HEC Albright 11

Collection Date: 12/4/2017 11:10:00 AM

Lab ID: 1712163-002

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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	9.3		mg/Kg	1	12/11/2017 6:31:34 PM	35365
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/11/2017 6:31:34 PM	35365
Surr: DNOP	102	70-130		%Rec	1	12/11/2017 6:31:34 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/7/2017 1:38:36 PM	35357
Surr: BFB	111	15-316		%Rec	1	12/7/2017 1:38:36 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/7/2017 1:38:36 PM	35357
Toluene	ND	0.048		mg/Kg	1	12/7/2017 1:38:36 PM	35357
Ethylbenzene	ND	0.048		mg/Kg	1	12/7/2017 1:38:36 PM	35357
Xylenes, Total	ND	0.097		mg/Kg	1	12/7/2017 1:38:36 PM	35357
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	12/7/2017 1:38:36 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project: HEC Albright 11

Collection Date: 12/4/2017 11:35:00 AM

Lab ID: 1712163-003

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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	9.4		mg/Kg	1	12/11/2017 6:55:35 PM	35365
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/11/2017 6:55:35 PM	35365
Surr: DNOP	101	70-130		%Rec	1	12/11/2017 6:55:35 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>					Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/7/2017 5:59:25 PM	35357
Surr: BFB	108	15-316		%Rec	1	12/7/2017 5:59:25 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: NSB		
Benzene	ND	0.024		mg/Kg	1	12/7/2017 5:59:25 PM	35357
Toluene	ND	0.047		mg/Kg	1	12/7/2017 5:59:25 PM	35357
Ethylbenzene	ND	0.047		mg/Kg	1	12/7/2017 5:59:25 PM	35357
Xylenes, Total	ND	0.095		mg/Kg	1	12/7/2017 5:59:25 PM	35357
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	12/7/2017 5:59:25 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: HEC Albright 11

Collection Date: 12/4/2017 11:40:00 AM

Lab ID: 1712163-004

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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	9.2		mg/Kg	1	12/11/2017 7:19:25 PM	35365
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/11/2017 7:19:25 PM	35365
Surr: DNOP	102	70-130		%Rec	1	12/11/2017 7:19:25 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/7/2017 7:10:05 PM	35357
Surr: BFB	106	15-316		%Rec	1	12/7/2017 7:10:05 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/7/2017 7:10:05 PM	35357
Toluene	ND	0.047		mg/Kg	1	12/7/2017 7:10:05 PM	35357
Ethylbenzene	ND	0.047		mg/Kg	1	12/7/2017 7:10:05 PM	35357
Xylenes, Total	ND	0.095		mg/Kg	1	12/7/2017 7:10:05 PM	35357
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	12/7/2017 7:10:05 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-5

Project: HEC Albright 11

Collection Date: 12/4/2017 11:50:00 AM

Lab ID: 1712163-005

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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)	78	9.5		mg/Kg	1	12/12/2017 1:03:29 PM	35365
Motor Oil Range Organics (MRO)	240	48		mg/Kg	1	12/12/2017 1:03:29 PM	35365
Surr: DNOP	114	70-130		%Rec	1	12/12/2017 1:03:29 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>					Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/7/2017 7:33:36 PM	35357
Surr: BFB	106	15-316		%Rec	1	12/7/2017 7:33:36 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: NSB		
Benzene	ND	0.023		mg/Kg	1	12/7/2017 7:33:36 PM	35357
Toluene	ND	0.046		mg/Kg	1	12/7/2017 7:33:36 PM	35357
Ethylbenzene	ND	0.046		mg/Kg	1	12/7/2017 7:33:36 PM	35357
Xylenes, Total	ND	0.093		mg/Kg	1	12/7/2017 7:33:36 PM	35357
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	12/7/2017 7:33:36 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-6

Project: HEC Albright 11

Collection Date: 12/4/2017 11:54:00 AM

Lab ID: 1712163-006

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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)	130	9.6		mg/Kg	1	12/12/2017 11:50:27 AM	35365
Motor Oil Range Organics (MRO)	310	48		mg/Kg	1	12/12/2017 11:50:27 AM	35365
Surr: DNOP	103	70-130		%Rec	1	12/12/2017 11:50:27 AM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/7/2017 7:57:03 PM	35357
Surr: BFB	104	15-316		%Rec	1	12/7/2017 7:57:03 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/7/2017 7:57:03 PM	35357
Toluene	ND	0.047		mg/Kg	1	12/7/2017 7:57:03 PM	35357
Ethylbenzene	ND	0.047		mg/Kg	1	12/7/2017 7:57:03 PM	35357
Xylenes, Total	ND	0.094		mg/Kg	1	12/7/2017 7:57:03 PM	35357
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	12/7/2017 7:57:03 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7

Project: HEC Albright 11

Collection Date: 12/4/2017 12:26:00 PM

Lab ID: 1712163-007

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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	12/11/2017 8:31:09 PM	35365
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/11/2017 8:31:09 PM	35365
Surr: DNOP	103	70-130		%Rec	1	12/11/2017 8:31:09 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/7/2017 8:20:30 PM	35357
Surr: BFB	105	15-316		%Rec	1	12/7/2017 8:20:30 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	12/7/2017 8:20:30 PM	35357
Toluene	ND	0.050		mg/Kg	1	12/7/2017 8:20:30 PM	35357
Ethylbenzene	ND	0.050		mg/Kg	1	12/7/2017 8:20:30 PM	35357
Xylenes, Total	ND	0.099		mg/Kg	1	12/7/2017 8:20:30 PM	35357
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	12/7/2017 8:20:30 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-8

Project: HEC Albright 11

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

Lab ID: 1712163-008

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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)	34	9.1		mg/Kg	1	12/12/2017 12:14:49 PM	35365
Motor Oil Range Organics (MRO)	120	46		mg/Kg	1	12/12/2017 12:14:49 PM	35365
Surr: DNOP	105	70-130		%Rec	1	12/12/2017 12:14:49 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/7/2017 8:43:52 PM	35357
Surr: BFB	104	15-316		%Rec	1	12/7/2017 8:43:52 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	12/7/2017 8:43:52 PM	35357
Toluene	ND	0.047		mg/Kg	1	12/7/2017 8:43:52 PM	35357
Ethylbenzene	ND	0.047		mg/Kg	1	12/7/2017 8:43:52 PM	35357
Xylenes, Total	ND	0.094		mg/Kg	1	12/7/2017 8:43:52 PM	35357
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	12/7/2017 8:43:52 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-9

Project: HEC Albright 11

Collection Date: 12/4/2017 11:45:00 AM

Lab ID: 1712163-009

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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)	57	9.6		mg/Kg	1	12/12/2017 12:39:03 PM	35365
Motor Oil Range Organics (MRO)	170	48		mg/Kg	1	12/12/2017 12:39:03 PM	35365
Surr: DNOP	105	70-130		%Rec	1	12/12/2017 12:39:03 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/7/2017 9:07:15 PM	35357
Surr: BFB	105	15-316		%Rec	1	12/7/2017 9:07:15 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	12/7/2017 9:07:15 PM	35357
Toluene	ND	0.047		mg/Kg	1	12/7/2017 9:07:15 PM	35357
Ethylbenzene	ND	0.047		mg/Kg	1	12/7/2017 9:07:15 PM	35357
Xylenes, Total	ND	0.093		mg/Kg	1	12/7/2017 9:07:15 PM	35357
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	12/7/2017 9:07:15 PM	35357

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
	PQL	Practical Quantitative Limit	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 1712163

Date Reported: 12/13/2017

CLIENT: Rule Engineering LLC

Client Sample ID: SC-10

Project: HEC Albright 11

Collection Date: 12/4/2017 12:10:00 PM

Lab ID: 1712163-010

Matrix: SOIL

Received Date: 12/5/2017 7:00:00 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	9.6		mg/Kg	1	12/11/2017 9:42:30 PM	35365
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/11/2017 9:42:30 PM	35365
Surr: DNOP	104	70-130		%Rec	1	12/11/2017 9:42:30 PM	35365
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/7/2017 9:30:42 PM	35357
Surr: BFB	105	15-316		%Rec	1	12/7/2017 9:30:42 PM	35357
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	12/7/2017 9:30:42 PM	35357
Toluene	ND	0.046		mg/Kg	1	12/7/2017 9:30:42 PM	35357
Ethylbenzene	ND	0.046		mg/Kg	1	12/7/2017 9:30:42 PM	35357
Xylenes, Total	ND	0.093		mg/Kg	1	12/7/2017 9:30:42 PM	35357
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	12/7/2017 9:30:42 PM	35357

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
	PQL	Practical Quantitative Limit	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#: 1712163

13-Dec-17

Client: Rule Engineering LLC

Project: HEC Albright 11

Sample ID	LCS-35365	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	35365	RunNo:	47518					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1520345	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	73.2	114			
Surr: DNOP	4.5		5.000		89.3	70	130			

Sample ID	MB-35365	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	35365	RunNo:	47518					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1520346	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.2	70	130			

Sample ID	LCS-35429	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	35429	RunNo:	47697					
Prep Date:	12/11/2017	Analysis Date:	12/12/2017	SeqNo:	1525049	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.1	73.2	114			
Surr: DNOP	4.7		5.000		93.3	70	130			

Sample ID	MB-35429	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	35429	RunNo:	47697					
Prep Date:	12/11/2017	Analysis Date:	12/12/2017	SeqNo:	1525050	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Sample ID	1712163-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	35429	RunNo:	47697					
Prep Date:	12/11/2017	Analysis Date:	12/12/2017	SeqNo:	1525972	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.41	2.474	81.3	55.8	125			
Surr: DNOP	4.8		4.941		97.3	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  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712163

13-Dec-17

Client: Rule Engineering LLC

Project: HEC Albright 11

Sample ID	1712163-001AMSD	SampType	MSD	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	SC-1	Batch ID	35429	RunNo	47697					
Prep Date	12/11/2017	Analysis Date	12/12/2017	SeqNo	1525973	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.3	46.64	2.474	88.6	55.8	125	2.70	20	
Sur: DNOP	4.7		4.664		101	70	130	0	0	

## Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712163

13-Dec-17

Client: Rule Engineering LLC

Project: HEC Albright 11

Sample ID	MB-35357	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	35357	RunNo:	47604					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1521467	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	1100		1000		109	15	316			

Sample ID	LCS-35357	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	35357	RunNo:	47604					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1521468	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	75.9	131			
Surr: BFB	1200		1000		124	15	316			

Sample ID	1712163-003AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-3	Batch ID:	35357	RunNo:	47604					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1521471	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	77.8	128			
Surr: BFB	1200		1000		120	15	316			

Sample ID	1712163-003AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-3	Batch ID:	35357	RunNo:	47604					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1521472	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	24.22	0	116	77.8	128	2.53	20	
Surr: BFB	1200		969.0		120	15	316	0	0	

Sample ID	MB-35409	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	35409	RunNo:	47674					
Prep Date:	12/8/2017	Analysis Date:	12/11/2017	SeqNo:	1523843	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	1100		1000		110	15	316			

Sample ID	LCS-35409	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	35409	RunNo:	47674					
Prep Date:	12/8/2017	Analysis Date:	12/11/2017	SeqNo:	1523844	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	1100		1000		110	15	316			

### 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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712163

13-Dec-17

Client: Rule Engineering LLC

Project: HEC Albright 11

Sample ID	LCS-35409	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	35409	RunNo:	47674					
Prep Date:	12/8/2017	Analysis Date:	12/11/2017	SeqNo:	1523844	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	75.9	131			
Surr: BFB	1200		1000		122	15	316			

## 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  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1712163

13-Dec-17

Client: Rule Engineering LLC

Project: HEC Albright 11

Sample ID	MB-35357	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	35357	RunNo:	47604					
Prep Date:	12/6/2017	Analysis Date:	12/7/2017	SeqNo:	1521499	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		103	80	120			

Sample ID	LCS-35357	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 35357			RunNo: 47604					
Prep Date:	12/6/2017	Analysis Date: 12/7/2017			SeqNo: 1521500		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	77.3	128			
Toluene	1.1	0.050	1.000	0	107	79.2	125			
Ethylbenzene	1.0	0.050	1.000	0	102	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	99.1	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	1712163-002AMS	SampType: MS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-2	Batch ID: 35357			RunNo: 47604					
Prep Date:	12/6/2017	Analysis Date: 12/7/2017			SeqNo: 1521502		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9302	0	108	80.9	132			
Toluene	1.0	0.047	0.9302	0	111	79.8	136			
Ethylbenzene	1.0	0.047	0.9302	0	109	79.4	140			
Xylenes, Total	3.0	0.093	2.791	0	108	78.5	142			
Surr: 4-Bromofluorobenzene	1.0		0.9302		111	80	120			

Sample ID	1712163-002AMSD	SampType: MSD			TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-2	Batch ID: 35357			RunNo: 47604					
Prep Date:	12/6/2017	Analysis Date: 12/7/2017			SeqNo: 1521503		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9398	0	107	80.9	132	0.713	20	
Toluene	1.0	0.047	0.9398	0	109	79.8	136	0.495	20	
Ethylbenzene	1.0	0.047	0.9398	0	107	79.4	140	0.624	20	
Xylenes, Total	3.0	0.094	2.820	0	106	78.5	142	0.621	20	
Surr: 4-Bromofluorobenzene	1.0		0.9398		109	80	120	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
PQL Practical Quantitative Limit	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#: 1712163

13-Dec-17

Client: Rule Engineering LLC

Project: HEC Albright 11

Sample ID	MB-35409	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	35409		RunNo:	47674				
Prep Date:	12/8/2017	Analysis Date:	12/11/2017		SeqNo:	1523870	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	80	120			

Sample ID	LCS-35409		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 35409		RunNo: 47674					
Prep Date:	12/8/2017		Analysis Date: 12/11/2017		SeqNo: 1523871		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.9	77.3	128			
Toluene	0.92	0.050	1.000	0	92.3	79.2	125			
Ethylbenzene	0.87	0.050	1.000	0	87.3	80.7	127			
Xylenes, Total	2.6	0.10	3.000	0	85.7	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	1712163-001AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles						
Client ID:	SC-1	Batch ID: 35409		RunNo: 47674						
Prep Date:	12/8/2017	Analysis Date: 12/11/2017		SeqNo: 1523873		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.023	0.9234	0	92.6	80.9	132			
Toluene	0.86	0.046	0.9234	0	93.3	79.8	136			
Ethylbenzene	0.84	0.046	0.9234	0	91.4	79.4	140			
Xylenes, Total	2.5	0.092	2.770	0.02334	89.7	78.5	142			
Surr: 4-Bromofluorobenzene	1.0		0.9234		108	80	120			

Sample ID	1712163-001AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles							
Client ID:	SC-1	Batch ID: 35409	RunNo: 47674							
Prep Date:	12/8/2017	Analysis Date: 12/11/2017	SeqNo: 1523874		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9872	0	93.8	80.9	132	7.91	20	
Toluene	0.93	0.049	0.9872	0	94.2	79.8	136	7.70	20	
Ethylbenzene	0.91	0.049	0.9872	0	92.1	79.4	140	7.50	20	
Xylenes, Total	2.7	0.099	2.962	0.02334	91.6	78.5	142	8.68	20	
Surr: 4-Bromofluorobenzene	1.1		0.9872		109	80	120	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
PQL Practical Quantitative Limit	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: 1712163

RcptNo: 1

Received By: Anne Thorne

12/5/2017 7:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne

12/5/2017 9:39:06 AM

*Anne Thorne*

Reviewed By: ENM

12/6/17

### 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	1.0	Good	Yes			



# Chain-of-Custody Record

Turn-Around Time:

Client: Rule Engineering, LLC

☒ Standard ☐ Rush

Project Name:

Mailing Address: 501 Airport Dr., Ste 205

HEC Albright #11

Project #:

Farmington, NM 87401

Project Manager:

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other \_\_\_\_\_

☐ EDD (Type) \_\_\_\_\_

Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

Sample Temperature: 17.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
12/4/17	1120	Soil	SC-1	(1) 4oz Glass	Non	201	X		X									
12/4/17	1110	Soil	SC-2	(1) 4oz Glass	Non	202	X		X									
12/4/17	1135	Soil	SC-3	(1) 4oz Glass	Non	203	X		X									
12/4/17	1140	Soil	SC-4	(1) 4oz Glass	Non	204	X		X									
12/4/17	1150	Soil	SC-5	(1) 4oz Glass	Non	205	X		X									
12/4/17	1154	Soil	SC-6	(1) 4oz Glass	Non	206	X		X									
12/4/17	1226	Soil	SC-7	(1) 4oz Glass	Non	207	X		X									
12/4/17	1220	Soil	SC-8	(1) 4oz Glass	Non	208	X		X									
12/4/17	1145	Soil	SC-9	(1) 4oz Glass	Non	209	X		X									
12/4/17	1210	Soil	SC-10	(1) 4oz Glass	Non	210	X		X									
NFS HEC																		

Date: 12/4/17 Time: 1640 Relinquished by: Heath M. Woods

Received by: [Signature] Date: 12/4/17 Time: 1640

Date: 12/4/17 Time: 1949 Relinquished by: [Signature]

Received by: [Signature] Date: 12/05/17 Time: 0700

Remarks: Direct Bill to Hilcorp  
c/o Clara Cardoza  
ccardoza@hilcorp.com



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Analysis Request