

**INFORMATION ONLY**



# Topaz 19 Fed Com #001

## CLOSURE REQUEST

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API No. 30-025-22564

Release Date: November 10, 2014

Unit Letter N, Section 19, Township 20 South, Range 34 East

NMOCD Case #: 1R-3419

**June 8, 2017**

**Prepared by:**

Michael Burton

Environmental Department

Diversified Field Service, Inc.

206 W. Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

Olivia Yu  
Environmental Specialist  
NM Oil Conservation District – Division 1  
1625 N French Drive  
Hobbs, NM 88240

**RE: Linn Energy Topaz 19 Federal Com #001  
Closure Request**  
UL/N, Section 19, T20S, R34E  
API No. 30-025-226564  
NMOCD Case #: 1R-3419  
NMOCD Score: 0

Ms. Yu,

Linn Energy (Linn) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located southwest of Monument, NM, in Lea County. On November 10, 2014, the spill resulted from a corroded line, releasing a total of 10 barrels of produced water and 25 barrels of condensate, with 20 barrels of condensate and none of produced water recovered. The impacted area was contained within the diked area. An initial C-141 was submitted to the NMOCD on November 11, 2014, and approved on November 12, 2014 (Appendix I).

#### **Site Assessment and Delineation**

On May 10, 2017, DFSI personnel were on site to obtain samples within the leak area (Appendix II). Two samples were obtained and field sampled for chloride levels (Appendix III). Field samples were submitted for analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation, resulting in chloride and TPH concentrations that decreased to or were below regulatory. BTEX concentrations were below regulatory guidelines throughout (Appendix IV).

#### **Conclusion**

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer and Chevron Trend Map, the average depth to groundwater beneath the site is approximately 150 ft bgs. Therefore, no eminent danger of groundwater impact or threat to life is anticipated (Appendix V).

Based on the low concentrations of constituents, DFSI, on behalf of Linn, submits the final C-141 (Appendix VI) and respectfully requests the closure of this regulatory file.

Please feel free to contact me with any questions concerning this closure request.

Sincerely,



Michael Burton

Environmental Operations Director | Diversified Field Service, Inc.

206 West Snyder | Hobbs, NM 88240

Office: (575)964-8394 | Mobile: (575)390-5454

Fax: (575)964-8396 | Email: mburton@diversifiedfsi.com

CC: Shelly Tucker, BLM

Appendices: Initial C-141  
Site Photos  
Soil Data  
Laboratory Analysis  
Groundwater Study  
Final C-141

# Appendix I

INITIAL C-141

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

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  
Minerals and Natural Resources  
Oil Conservation Division  
220 South St. Francis Dr.  
Santa Fe, NM 87505

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	Linn Operating Inc.	Contact	E.L. Gonzales
Address	2130 W Bender Blvd Hobbs, NM 88240	Telephone No.	575-738-1739
Facility Name	Topaz 19 Fed Com #1	Facility Type	Gas well

Surface Owner	Federal	Mineral Owner		API No.	30-025-22564
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	19	20S	34E	660	South	2084	West	LEA

Latitude 32.5531652922566 Longitude -103.601390977587

NATURE OF RELEASE

Type of Release	Produced Water / Condensate	Volume of Release	10 bbls / 25bbls	Volume Recovered	0 / 20 bbls
Source of Release	1 inch pipe	Date and Hour of Occurrence	11/10/2014	Date and Hour of Discovery	11/11/2014 12:02 pm
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Tomas Oberding -NM OCD James Amos-BLM		
By Whom?	Bob Akin	Date and Hour	11/11/2014		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* upon arrival at location. I noticed that fluid was in the dike, due to a 1 inch line on the back of the tank that had fallen off due to corrosion.

Describe Area Affected and Cleanup Action Taken.\* Fluid contained on location in the dike.

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:	E.L. Gonzales	Approved by Environmental Specialist:	
Title:	Production Supervisor	Approval Date:	11-12-14
E-mail Address:	elgonzales@linenergy.com	Expiration Date:	1-2-14
Date:	11/11/2014	Phone:	505-504-8002
		Conditions of Approval:	Attached <input type="checkbox"/>

*Site Supervisor Delante & evaluate area upon NMOCD guide - Submit Report C-141 by 1-12-14*

*IRP-3419 09/11/14 269324 11/11/2014 31630731 11/11/2014 31631108*

\* Attach Additional Sheets If Necessary

NOV 14 2014

# Appendix II

SITE PHOTO

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

# Topaz 19 Federal Com #001

Photo Page



Collecting sample



Collecting sample

# Appendix III

## SOIL DATA

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



# DFSI, INC. CL- FIELD TITRATION RESULTS

**LOCATION: LINN TOPAZ 19 FED COM #1**

**DATE: 05/10/17**

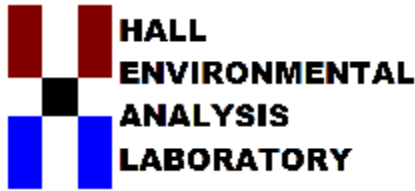
Sample pt.	DEPTH	SOIL	WATER	CF	AGNO3	CL-	PID	SOIL LITHOLOGY
SP1	Surface	20	41	2.05	0.04	82	62.5	sandy sand dry
	2'	16	40	2.50	0.06	150	17.1	sandy sand dry
	5'	15	49	3.27	0.07	229	42.1	sandy sand damp
	7'	16	42	2.63	0.07	184	81.7	sandy sand damp
	10'	18	42	2.33	0.07	163	115.7	sandy sand damp
SP2	Surface	16	44	2.75	0.09	247	15k+	rocky caliche dry
	2'	16	46	2.88	0.05	144	15k+	sandy sand damp
	5'	16	42	2.63	0.07	184	358.4	sandy sand damp
	7'	15	40	2.67	0.08	213	15k+	sandy sand damp
	10'	21	41	1.95	0.07	137	15k+	sandy sand damp

# Appendix IV

## LABORATORY ANALYSIS

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



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)

May 19, 2017

Michael Burton  
Diversified Field Services, Inc  
315 S. Leech St  
Hobbs, NM 88240  
TEL: (575) 964-8394  
FAX

RE: Topaz 19 Fed Com #1

OrderNo.: 1705685

Dear Michael Burton:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/12/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1705685

Date Reported: 5/19/2017

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** SP1 @Surface

**Project:** Topaz 19 Fed Com #1

**Collection Date:** 5/10/2017 7:52:00 AM

**Lab ID:** 1705685-001

**Matrix:** SOIL

**Received Date:** 5/12/2017 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	42	30		mg/Kg	20	5/18/2017 3:43:52 PM	31813
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/16/2017 12:35:22 PM	31741
Surr: DNOP	90.1	70-130		%Rec	1	5/16/2017 12:35:22 PM	31741
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/16/2017 6:48:44 PM	31734
Surr: BFB	93.6	54-150		%Rec	1	5/16/2017 6:48:44 PM	31734
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	5/16/2017 6:48:44 PM	31734
Toluene	ND	0.047		mg/Kg	1	5/16/2017 6:48:44 PM	31734
Ethylbenzene	ND	0.047		mg/Kg	1	5/16/2017 6:48:44 PM	31734
Xylenes, Total	ND	0.093		mg/Kg	1	5/16/2017 6:48:44 PM	31734
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	1	5/16/2017 6:48:44 PM	31734

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1705685

Date Reported: 5/19/2017

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** SP1 @10'

**Project:** Topaz 19 Fed Com #1

**Collection Date:** 5/10/2017 8:35:00 AM

**Lab ID:** 1705685-002

**Matrix:** SOIL

**Received Date:** 5/12/2017 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	5/18/2017 3:56:17 PM	31813
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/16/2017 12:57:30 PM	31741
Surr: DNOP	87.1	70-130		%Rec	1	5/16/2017 12:57:30 PM	31741
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/16/2017 7:12:46 PM	31734
Surr: BFB	95.9	54-150		%Rec	1	5/16/2017 7:12:46 PM	31734
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/16/2017 7:12:46 PM	31734
Toluene	ND	0.048		mg/Kg	1	5/16/2017 7:12:46 PM	31734
Ethylbenzene	ND	0.048		mg/Kg	1	5/16/2017 7:12:46 PM	31734
Xylenes, Total	ND	0.096		mg/Kg	1	5/16/2017 7:12:46 PM	31734
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	5/16/2017 7:12:46 PM	31734

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1705685

Date Reported: 5/19/2017

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** SP2@5'

**Project:** Topaz 19 Fed Com #1

**Collection Date:** 5/10/2017 9:00:00 AM

**Lab ID:** 1705685-003

**Matrix:** SOIL

**Received Date:** 5/12/2017 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	160	30		mg/Kg	20	5/18/2017 4:08:41 PM	31813
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/16/2017 1:19:19 PM	31741
Surr: DNOP	94.3	70-130		%Rec	1	5/16/2017 1:19:19 PM	31741
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/16/2017 7:36:44 PM	31734
Surr: BFB	101	54-150		%Rec	1	5/16/2017 7:36:44 PM	31734
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/16/2017 7:36:44 PM	31734
Toluene	ND	0.047		mg/Kg	1	5/16/2017 7:36:44 PM	31734
Ethylbenzene	ND	0.047		mg/Kg	1	5/16/2017 7:36:44 PM	31734
Xylenes, Total	ND	0.095		mg/Kg	1	5/16/2017 7:36:44 PM	31734
Surr: 4-Bromofluorobenzene	115	66.6-132		%Rec	1	5/16/2017 7:36:44 PM	31734

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 3 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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1705685

Date Reported: 5/19/2017

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** SP2@10'

**Project:** Topaz 19 Fed Com #1

**Collection Date:** 5/10/2017 9:13:00 AM

**Lab ID:** 1705685-004

**Matrix:** SOIL

**Received Date:** 5/12/2017 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	86	30		mg/Kg	20	5/18/2017 4:21:06 PM	31813
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	17	9.8		mg/Kg	1	5/16/2017 1:41:21 PM	31741
Surr: DNOP	93.1	70-130		%Rec	1	5/16/2017 1:41:21 PM	31741
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/16/2017 8:00:48 PM	31734
Surr: BFB	97.6	54-150		%Rec	1	5/16/2017 8:00:48 PM	31734
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/16/2017 8:00:48 PM	31734
Toluene	ND	0.048		mg/Kg	1	5/16/2017 8:00:48 PM	31734
Ethylbenzene	ND	0.048		mg/Kg	1	5/16/2017 8:00:48 PM	31734
Xylenes, Total	ND	0.096		mg/Kg	1	5/16/2017 8:00:48 PM	31734
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	5/16/2017 8:00:48 PM	31734

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705685

19-May-17

**Client:** Diversified Field Services, Inc

**Project:** Topaz 19 Fed Com #1

Sample ID <b>MB-31813</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31813</b>		RunNo: <b>42909</b>							
Prep Date: <b>5/18/2017</b>	Analysis Date: <b>5/18/2017</b>		SeqNo: <b>1350314</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-31813</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31813</b>		RunNo: <b>42909</b>							
Prep Date: <b>5/18/2017</b>	Analysis Date: <b>5/18/2017</b>		SeqNo: <b>1350315</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

**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#: 1705685

19-May-17

**Client:** Diversified Field Services, Inc

**Project:** Topaz 19 Fed Com #1

Sample ID <b>LCS-31741</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31741</b>		RunNo: <b>42804</b>							
Prep Date: <b>5/15/2017</b>	Analysis Date: <b>5/16/2017</b>		SeqNo: <b>1346873</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.2	73.2	114			
Surr: DNOP	3.9		5.000		77.5	70	130			

Sample ID <b>MB-31741</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31741</b>		RunNo: <b>42804</b>							
Prep Date: <b>5/15/2017</b>	Analysis Date: <b>5/16/2017</b>		SeqNo: <b>1346874</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.5		10.00		84.9	70	130			

Sample ID <b>LCS-31779</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31779</b>		RunNo: <b>42848</b>							
Prep Date: <b>5/17/2017</b>	Analysis Date: <b>5/17/2017</b>		SeqNo: <b>1348461</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.8	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#: 1705685

19-May-17

**Client:** Diversified Field Services, Inc

**Project:** Topaz 19 Fed Com #1

Sample ID <b>MB-31734</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31734</b>		RunNo: <b>42820</b>							
Prep Date: <b>5/15/2017</b>	Analysis Date: <b>5/16/2017</b>		SeqNo: <b>1347060</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		92.8	54	150			

Sample ID <b>LCS-31734</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31734</b>		RunNo: <b>42820</b>							
Prep Date: <b>5/15/2017</b>	Analysis Date: <b>5/16/2017</b>		SeqNo: <b>1347061</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.8	76.4	125			
Surr: BFB	1000		1000		102	54	150			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705685

19-May-17

**Client:** Diversified Field Services, Inc

**Project:** Topaz 19 Fed Com #1

Sample ID <b>MB-31734</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31734</b>		RunNo: <b>42820</b>							
Prep Date: <b>5/15/2017</b>	Analysis Date: <b>5/16/2017</b>		SeqNo: <b>1347093</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	66.6	132			

Sample ID <b>LCS-31734</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31734</b>		RunNo: <b>42820</b>							
Prep Date: <b>5/15/2017</b>	Analysis Date: <b>5/16/2017</b>		SeqNo: <b>1347094</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.4	80	120			
Toluene	0.99	0.050	1.000	0	99.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.7	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

**Qualifiers:**

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



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

# Sample Log-In Check List

Client Name: **DIVERSIFIED FIELD SE**      Work Order Number: **1705685**      RcptNo: **1**

Received By: **Andy Jansson**      5/12/2017 9:50:00 AM      *andy jansson*  
 Completed By: **Andy Jansson**      5/12/2017 1:04:57 PM      *andy jansson*  
 Reviewed By: **ENM**      **05/12/17**

### Chain of Custody

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

### Log In

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

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

### Special Handling (if applicable)

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

Person Notified:		Date	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

### 18. Cooler Information

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

# Chain-of-Custody Record

Client: DIVERSIFIED

Mailing Address:

Bill To Linn

Phone #:

email or Fax#:

QA/QC Package:

Standard  Level 4 (Full Validation)

Accreditation

NELAP  Other

EDD (Type)

Project Manager:

MICHAEL BURTON

Sampler: ELISABETH RASCON

On Ice:  Yes  No

Sample Temperature: 3.30C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
5-10-17	752	Soil	SP1 @ SURFACE	JAR	COOL	1705685-001
5-10-17	835	Soil	SP1 @ 10'	JAR	COOL	-002
5-10-17	900	Soil	SP2 @ 5'	JAR	COOL	-003
5-10-17	913	Soil	SP2 @ 10'	JAR	COOL	-004

Turn-Around Time:

Standard  Rush

Project Name:

TOPAZ 19 FEAS COM #1

Project #:



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX + MTBE + TMBs (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 <sup>-</sup> , Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , SO <sub>4</sub> <sup>2-</sup> )	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks:

EMAIL ALL @ DIVERSIFIED

Relinquished by: Spk Date: 5/17/17 0700

Received by: Spk Date: 5/17/17 0950

Date: 5/17/17 Time: 700

Date: 5/17/17 Time: 1900

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

# Appendix V

## GROUNDWATER STUDY

---

Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
<a href="#">CP 00657 POD1</a>		CP	LE	3	3	17	20S	34E		632465	3604239*	165		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

**Section(s):** 17, 18, 19, 20, **Township:** 20S **Range:** 34E  
29, 30

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/7/17 2:12 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water


(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
<a href="#">CP 00798 POD1</a>	CP	LE	2	1	1	24	20S	33E	629348	3603892*		850		

Average Depth to Water: --  
Minimum Depth: --  
Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 13, 24, 25      Township: 20S      Range: 33E

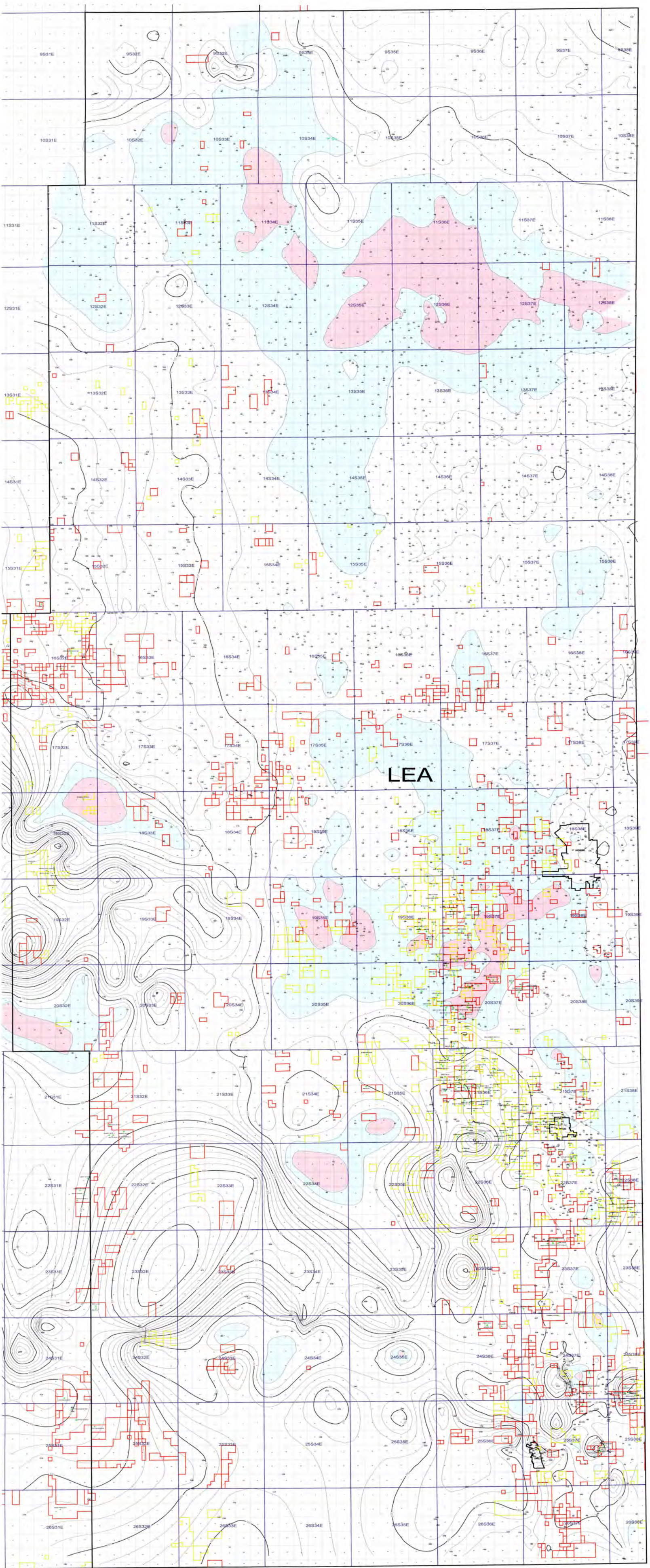
\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/7/17 2:13 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER





LEA

ChevronTexaco  
Lea Co. Depth To Ground Water  
Water Wells  
Facilities

Map Author: [Name]  
Scale: 1:50,000



# Appendix VI

FINAL C-141

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

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

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 in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Linn Energy	Contact: Aaron Hickert
Address: 2130 W Bender, Hobbs, NM 88240	Telephone No. 432-363-9496
Facility Name: Topaz 19 Fed Com #1	Facility Type: Gas Well
Surface Owner: Federal	Mineral Owner:
API No. 30-025-22564	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from	East/West Line	County
N	19	20S	34E	660	South	2084	West	Lea

Latitude: 32.5531652922566 Longitude: -103.601390977587


**NATURE OF RELEASE**

Type of Release: Produced Water / Condensate	Volume of Release: 10 bbls / 25 bbls	Volume Recovered: 0 bbls / 20 bbls
Source of Release: 1" Pipe	Date and Hour of Occurrence: 11/10/2014	Date and Hour of Discovery: 11/11/2014 12:02 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Tomas Oberding - NMOCD, James Amos - BLM	
By Whom? Bob Akin	Date and Hour: 11/11/2014	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*  
Describe Cause of Problem and Remedial Action Taken.\*  
Upon arrival at location, noticed the fluid was in the dike, due to a 1" line on the back of the tank falling off due to corrosion.

Describe Area Affected and Cleanup Action Taken.  
On May 10, 2017, DFSI personnel were on site to obtain samples within the leak area. Two samples were obtained and field sampled for chloride levels. Field samples were submitted for analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation, resulting in chloride and TPH concentrations that decreased to or were below regulatory. BTEX concentrations were below regulatory guidelines throughout.

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: Aaron Hickert	Approved by Environmental Specialist:	
Title: Sr EH&S Representative	Approval Date:	Expiration Date:
E-mail Address: ahickert@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/07/2017 Phone: 432-363-9496		

\* Attach Additional Sheets If Necessary