



August 24, 2015

#5B24203-BG1

NMOCD District II  
1301 W Grand Ave  
Artesia, NM 88210

SUBJECT: FINAL CLOSURE REPORT FOR INCIDENT 2RP-23177 HUMBLE STATE/SINCLAIR A ST, EDDY COUNTY, NEW MEXICO

Dear Ms. Patterson:

Souder Miller & Associates is pleased to submit the attached Final Closure Report of the remediation of the release site located on the HUMBLE STATE/SINCLAIR A ST in Eddy County, New Mexico. The purpose of the Final Report is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for the closure of the release that occurred on New Mexico State Land Office property on July 29, 2015.

Souder, Miller & Associates (SMA) responded at the request of Alamo Permian Resources LLC, and COG Operating to assess and delineate the release of production fluids associated with the HUMBLE STATE/SINCLAIR A ST well location. The release was initially reported to NMOCD by Stoker Oilfield Service on July 30, 2015 and was a result of a lightning strike on an oil tank. The table below summarizes information regarding the release. Results of the assessment, delineation, and remedial activities follow in the attached closure report.

Table 1: Release information and Site Ranking					
Name	HUMBLE STATE/SINCLAIR A ST				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-3177	300-015-03005	SW/NE (Unit L)	Section 19	T 17S, R 29E NMMPM
Estimated Date of Release	29-Jul-15				
Date Reported to NMOCD	30-Jul-15				
Reported by	Carrie Stoker				
Land Owner	New Mexico State Land Office				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Oil Tank stuck by lightning				
Released Material	Oil				
Released Volume	56 bbls Oil				
Recovered Volume	45 bbls Oil				
Net Release	11 bbl Oil				
Nearest Waterway	Pecos River is over 12 miles west of the location.				

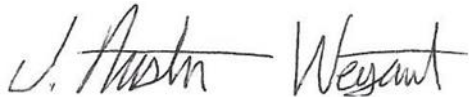


Depth to Groundwater	Estimated to be 131 feet.
Nearest Domestic Water Source	Greater than 1000 feet
NMOCD Ranking	0
SMA Response Dates	8/4/2015

A copy of the C-141 Final is located in Appendix B. For questions or comments pertaining to the release or the attached Closure Report, please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist

Reviewed by:



Cynthia Gray, CHMM  
Senior Scientist

# FINAL CLOSURE REPORT FOR INCIDENT 2RP-3177

## COG OPERATING LLC

HUMBLE STATE/SINCLAIR A ST

API# 300-015-03005

SECTION 19, T17S R29E, NMPM

EDDY COUNTY, NM



Prepared for:  
Alamo Permian Resources, LLC  
415 W. Wall St. Suite 500  
Midland, TX 79701

Prepared by:  
Souder, Miller & Associates  
201 S. Halagueno  
Carlsbad, NM 88221  
575-689-7040

August 24, 2015  
SMA Reference  
5B24203 BG1

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## **1.0 Introduction**

On behalf of Alamo Permian Resources, LLC, Souder, Miller & Associates (SMA) has prepared this report that describes the assessment, initial delineation, and mitigation of a release associated with the HUMBLE STATE/SINCLAIR A ST release site. The site is located in Section 19, T 17S, R 29 E NMPM, Eddy County, New Mexico, on land owned by the State of New Mexico. Figure 1 illustrates the vicinity and location of the site.

## **2.0 Site Ranking and Land Jurisdiction**

The release site is located approximately 12 miles west of the Pecos River, in an area owned by New Mexico State Land Office with an elevation of approximately 3,660 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be greater than 100 feet below ground surface (bgs). SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No domestic or agricultural wells are located within a 1000 foot radius of the release site.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned an NMOCD ranking of 0 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 5000 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates site ranking rationale.

## **3.0 Assessment and Initial Results**

On August 4th, 2015, SMA Field personnel assessed the release area onsite with a mobile chlorides titration kit and calibrated Photo Ionization Detector (PID) The affected area was found to be approximately 192 feet long and 20 feet wide. The spill from the Humble State/Sinclair A battery moved south onto Concho's (COG) State S-19 #33 pad and then traveled south along the road. The closure confirmation sampling of the site occurred on August 4th, 2015 with samples taken to depths of one foot bgs. All samples indicated by field screening that the soils at the surface are at background levels of chlorides. Sample locations and the excavation area are depicted on Figure 2 Site Details and Sample Location Map. Field screening results are included in Table 2 in the appendices. All samples were collected and processed according to NMOCD soil sampling procedures. Samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, Total Petroleum Hydrocarbons, DRO and GRO by EPA Method 8015D, and total Chlorides using EPA Method 300.0.

## **4.0 Soil Remediation Summary**

Initial excavation activities performed in response to the spill removed the contaminated soil from the site of the incident. Initial action included scraping of the surface soils to approximately three inches bgs around the Humble State/Sinclair A battery and on the COG pad. The area along the road was excavated to one foot bgs to remove contaminated soil. SMA took closure samples on August 4th, 2015 shown in Table 3 and Figure 2. Samples were taken to confirm that contaminated soils had been removed. Excavation was conducted to one foot bgs in the spill area to remove the soils affected. Approximately 30 cubic yards of contaminated soil were removed and replaced with clean backfill material to bring the excavated area to surface grade. All contaminated soil was placed on a liner, and fertilizer and water were added to support remediation of the impacted soil. The remediated soil will be used to reconstruct a secondary containment around the Humble State/Sinclair A battery.

## **5.0 Conclusions and Recommendations**

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 0: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 5000 ppm TPH.

Laboratory analytical results for all final closure samples collected were below NMOCD action levels for Benzene, BTEX, and TPH as well as below laboratory detection limits for the methods used. No further remedial activities are recommended.

Soil contaminant concentrations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 3. Laboratory reports are included in Appendix C.

Photo documentation is available by request.

## **6.0 Closure and Limitations**

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, preparation of a Remediation Work plan, implementation of the work plan, and verification of completion of the remedial activities. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist

Reviewed by:



Cynthia Gray, CHMM  
Senior Scientist

**Figures:**

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

**Tables:**

Table 1: Release Information and Site Ranking

Table 2: Field Screening

Table 3: Summary of Laboratory Analyses

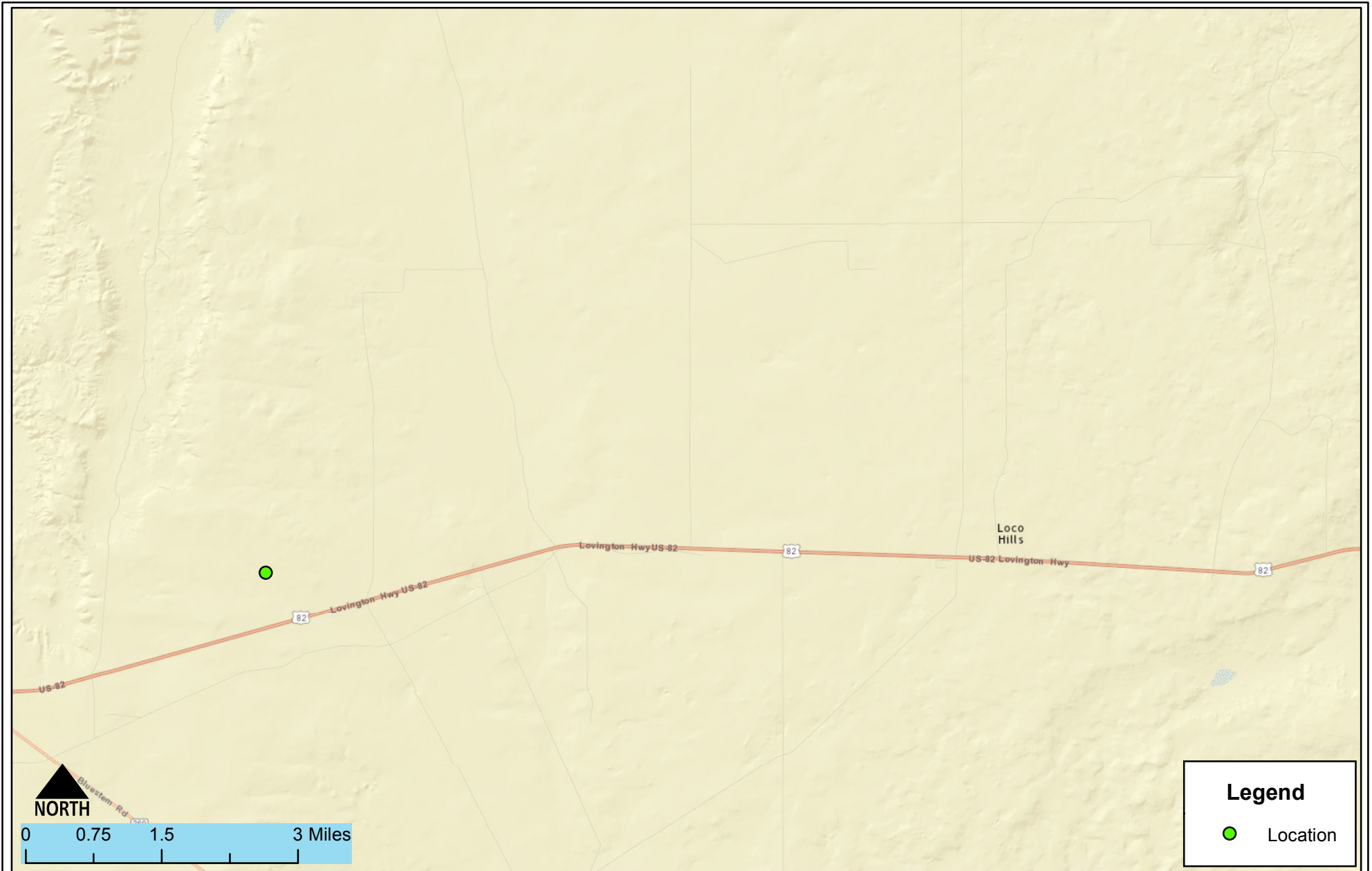
**Appendices:**

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

# FIGURE 1 VICINITY MAP





Vicinity Map  
HUMBLE STATE/SINCLAIR A ST  
Loco Hills, New Mexico

Figure 1

Date Saved:  
8/12/2015

Revisions	
By:	Date:
By: _____	Date: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved	

Lucas Middleton	
Drawn	Checked
_____	_____
Approved	_____



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Carlsbad, New Mexico 88221  
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# FIGURE 2

## DETAILED SITE AND SAMPLE MAP



Detailed Site and Sample Map  
 Alamo Permian Resources, Humble State/Sinclair A St  
 Loco Hills, New Mexico

Figure 2

Date Saved: 8/26/2015	By: _____	Date: _____	Revisions	Descr: _____
	By: _____	Date: _____		Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved				

Drawn	Lucas Middleton
Checked	_____
Approved	_____



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# TABLE 1

## RELEASE INFORMATION AND SITE RANKING



Table 1: Release information and Site Ranking					
Name	HUMBLE STATE/SINCLAIR A ST				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-3177	300-015-03005	SW/NE (Unit L)	Section 19	T 17S, R 29E NMPM
Estimated Date of Release	29-Jul-15				
Date Reported to NMOCD	30-Jul-15				
Reported by	Carie Stoker				
Land Owner	New Mexico State Land Office				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Oil Tank stuck by lightning				
Released Material	Oil				
Released Volume	56 bbls Oil				
Recovered Volume	45 bbls Oil				
Net Release	11 bbl Oil				
Nearest Waterway	Pecos River is over 12 miles west of the location.				
Depth to Groundwater	Estimated to be 131 feet.				
Nearest Domestic Water Source	Greater than 1000 feet				
NMOCD Ranking	0				
SMA Response Dates	8/4/2015				

# TABLE 2

## SUMMARY OF FIELD SCREENING

Table 2: Summary of Field Screening Results

HUMBLE STATE/SINCLAIR A ST  
Oil  
8/05/15

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	Lab Sample Collected Y/N
8/5/2015	9:00	A1	Surface	119	Y
8/5/2015	9:00	A2	Surface	1086	Y
8/5/2015	9:00	RoadS-2	1'	134	Y
8/5/2015	9:00	FPN	2"	76	Y
8/5/2015	9:00	FPS	2"	105	Y



# TABLE 3

## SUMMARY OF LABORATORY ANALYSES



**Table 3: Summary of Laboratory Analyses**

Analytical Report- 1508237	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1508237-001	SP	8/5/2015	Grab	22.1	BDL	670	8000	450
1508237-002	FPN	8/5/2015	Surface	BDL	BDL	BDL	18	N/A
1508237-003	FPS	8/5/2015	Surface	BDL	BDL	BDL	410	N/A
1508237-004	RN	8/5/2015	1'	BDL	BDL	BDL	110	N/A
1508237-005	RS-2	8/5/2015	2'	0.27	BDL	14	2000	N/A

# APPENDIX A

## LABORATORY ANALYTICAL REPORTS



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

August 14, 2015

Austin Weyant  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-7040  
FAX

RE: Humble State

OrderNo.: 1508237

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/6/2015 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1508237**

Date Reported: **8/14/2015**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SP

**Project:** Humble State

**Collection Date:** 8/5/2015 8:00:00 AM

**Lab ID:** 1508237-001

**Matrix:** SOIL

**Received Date:** 8/6/2015 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	450	30		mg/Kg	20	8/11/2015 7:01:01 PM	20732
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	8000	100		mg/Kg	10	8/12/2015 9:45:35 AM	20689
Surr: DNOP	0	57.9-140	S	%REC	10	8/12/2015 9:45:35 AM	20689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	670	97		mg/Kg	20	8/11/2015 3:08:45 PM	20670
Surr: BFB	255	75.4-113	S	%REC	20	8/11/2015 3:08:45 PM	20670
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	8/10/2015 1:49:03 PM	20670
Benzene	ND	0.049		mg/Kg	1	8/10/2015 1:49:03 PM	20670
Toluene	1.3	0.049		mg/Kg	1	8/10/2015 1:49:03 PM	20670
Ethylbenzene	1.8	0.049		mg/Kg	1	8/10/2015 1:49:03 PM	20670
Xylenes, Total	19	1.9		mg/Kg	20	8/11/2015 3:08:45 PM	20670
Surr: 4-Bromofluorobenzene	526	80-120	S	%REC	1	8/10/2015 1:49:03 PM	20670

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		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508237

Date Reported: 8/14/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** FPN

**Project:** Humble State

**Collection Date:** 8/5/2015 8:00:00 AM

**Lab ID:** 1508237-002

**Matrix:** SOIL

**Received Date:** 8/6/2015 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	18	9.9		mg/Kg	1	8/12/2015 3:37:44 AM	20689
Surr: DNOP	82.2	57.9-140		%REC	1	8/12/2015 3:37:44 AM	20689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/10/2015 4:43:15 PM	20670
Surr: BFB	96.0	75.4-113		%REC	1	8/10/2015 4:43:15 PM	20670
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	8/10/2015 4:43:15 PM	20670
Benzene	ND	0.049		mg/Kg	1	8/10/2015 4:43:15 PM	20670
Toluene	ND	0.049		mg/Kg	1	8/10/2015 4:43:15 PM	20670
Ethylbenzene	ND	0.049		mg/Kg	1	8/10/2015 4:43:15 PM	20670
Xylenes, Total	ND	0.099		mg/Kg	1	8/10/2015 4:43:15 PM	20670
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	8/10/2015 4:43:15 PM	20670

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		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508237

Date Reported: 8/14/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** FPS

**Project:** Humble State

**Collection Date:** 8/5/2015 8:00:00 AM

**Lab ID:** 1508237-003

**Matrix:** SOIL

**Received Date:** 8/6/2015 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	410	9.7		mg/Kg	1	8/12/2015 10:49:49 AM	20689
Surr: DNOP	93.8	57.9-140		%REC	1	8/12/2015 10:49:49 AM	20689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/11/2015 2:43:51 PM	20670
Surr: BFB	90.0	75.4-113		%REC	1	8/11/2015 2:43:51 PM	20670
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	8/10/2015 2:38:46 PM	20670
Benzene	ND	0.049		mg/Kg	1	8/10/2015 2:38:46 PM	20670
Toluene	ND	0.049		mg/Kg	1	8/10/2015 2:38:46 PM	20670
Ethylbenzene	ND	0.049		mg/Kg	1	8/10/2015 2:38:46 PM	20670
Xylenes, Total	ND	0.099		mg/Kg	1	8/10/2015 2:38:46 PM	20670
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	8/10/2015 2:38:46 PM	20670

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		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1508237**

Date Reported: **8/14/2015**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** RN

**Project:** Humble State

**Collection Date:** 8/5/2015 8:00:00 AM

**Lab ID:** 1508237-004

**Matrix:** SOIL

**Received Date:** 8/6/2015 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	110	9.7		mg/Kg	1	8/12/2015 11:53:45 AM	20689
Surr: DNOP	91.4	57.9-140		%REC	1	8/12/2015 11:53:45 AM	20689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/10/2015 3:28:27 PM	20670
Surr: BFB	107	75.4-113		%REC	1	8/10/2015 3:28:27 PM	20670
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	8/10/2015 3:28:27 PM	20670
Benzene	ND	0.049		mg/Kg	1	8/10/2015 3:28:27 PM	20670
Toluene	ND	0.049		mg/Kg	1	8/10/2015 3:28:27 PM	20670
Ethylbenzene	ND	0.049		mg/Kg	1	8/10/2015 3:28:27 PM	20670
Xylenes, Total	ND	0.098		mg/Kg	1	8/10/2015 3:28:27 PM	20670
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	8/10/2015 3:28:27 PM	20670

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

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	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
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	S	% Recovery outside of range due to dilution or matrix		

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508237

Date Reported: 8/14/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** RS-2

**Project:** Humble State

**Collection Date:** 8/5/2015 8:00:00 AM

**Lab ID:** 1508237-005

**Matrix:** SOIL

**Received Date:** 8/6/2015 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	2000	95		mg/Kg	10	8/12/2015 5:46:11 AM	20689
Surr: DNOP	0	57.9-140	S	%REC	10	8/12/2015 5:46:11 AM	20689
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	14	4.9		mg/Kg	1	8/10/2015 3:53:26 PM	20670
Surr: BFB	166	75.4-113	S	%REC	1	8/10/2015 3:53:26 PM	20670
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	8/10/2015 3:53:26 PM	20670
Benzene	ND	0.049		mg/Kg	1	8/10/2015 3:53:26 PM	20670
Toluene	ND	0.049		mg/Kg	1	8/10/2015 3:53:26 PM	20670
Ethylbenzene	ND	0.049		mg/Kg	1	8/10/2015 3:53:26 PM	20670
Xylenes, Total	0.27	0.098		mg/Kg	1	8/10/2015 3:53:26 PM	20670
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	8/10/2015 3:53:26 PM	20670

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
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	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508237

14-Aug-15

Client: Souder, Miller &amp; Associates

Project: Humble State

Sample ID	MB-20732		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	20732		RunNo:	28132				
Prep Date:	8/11/2015		Analysis Date:	8/11/2015		SeqNo:	847597		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-20732		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 20732		RunNo: 28132					
Prep Date:	8/11/2015		Analysis Date: 8/11/2015		SeqNo: 847598		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.5	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508237

14-Aug-15

Client: Souder, Miller &amp; Associates

Project: Humble State

Sample ID	MB-20689		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 20689		RunNo: 28093					
Prep Date:	8/10/2015		Analysis Date: 8/12/2015		SeqNo: 846969		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.7		10.00		76.6	57.9	140			

Sample ID	LCS-20689		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 20689		RunNo: 28093					
Prep Date:	8/10/2015		Analysis Date: 8/12/2015		SeqNo: 846970		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	77.0	57.4	139			
Surr: DNOP	3.9		5.000		77.6	57.9	140			

Sample ID	MB-20735		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 20735		RunNo: 28122					
Prep Date:	8/12/2015		Analysis Date: 8/12/2015		SeqNo: 847381		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		113	57.9	140			

Sample ID	LCS-20735		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 20735		RunNo: 28122					
Prep Date:	8/12/2015		Analysis Date: 8/12/2015		SeqNo: 847676		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.4		5.000		109	57.9	140			

### Qualifiers:

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D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508237

14-Aug-15

Client: Souder, Miller &amp; Associates

Project: Humble State

Sample ID	MB-20670		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 20670		RunNo: 28068					
Prep Date:	8/7/2015		Analysis Date: 8/10/2015		SeqNo: 845747		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	880		1000		87.9	75.4	113			

Sample ID	LCS-20670		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20670		RunNo: 28068					
Prep Date:	8/7/2015		Analysis Date: 8/10/2015		SeqNo: 845748		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	79.6	122			
Surr: BFB	990		1000		98.8	75.4	113			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508237

14-Aug-15

Client: Souder, Miller &amp; Associates

Project: Humble State

Sample ID	<b>MB-20670</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>20670</b>		RunNo:	<b>28068</b>			
Prep Date:	<b>8/7/2015</b>		Analysis Date:	<b>8/10/2015</b>		SeqNo:	<b>845787</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	80	120			

Sample ID	<b>LCS-20670</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>20670</b>		RunNo:	<b>28068</b>			
Prep Date:	<b>8/7/2015</b>		Analysis Date:	<b>8/10/2015</b>		SeqNo:	<b>845788</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	103	69.8	143			
Benzene	1.0	0.050	1.000	0	105	76.6	128			
Toluene	1.0	0.050	1.000	0	103	75	124			
Ethylbenzene	1.0	0.050	1.000	0	101	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	<b>1508237-002AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>FPN</b>		Batch ID:	<b>20670</b>		RunNo:	<b>28068</b>			
Prep Date:	<b>8/7/2015</b>		Analysis Date:	<b>8/10/2015</b>		SeqNo:	<b>845796</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.97	0.10	0.9980	0	97.5	53.6	133			
Benzene	1.0	0.050	0.9980	0	101	69.6	136			
Toluene	1.0	0.050	0.9980	0	102	76.2	134			
Ethylbenzene	0.99	0.050	0.9980	0.01723	97.3	75.8	137			
Xylenes, Total	3.3	0.10	2.994	0.01941	108	78.9	133			
Surr: 4-Bromofluorobenzene	1.1		0.9980		107	80	120			

Sample ID	<b>1508237-002AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>FPN</b>		Batch ID:	<b>20670</b>		RunNo:	<b>28068</b>			
Prep Date:	<b>8/7/2015</b>		Analysis Date:	<b>8/10/2015</b>		SeqNo:	<b>845797</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.98	0.099	0.9872	0	98.9	53.6	133	0.234	20	
Benzene	1.0	0.049	0.9872	0	104	69.6	136	2.11	20	
Toluene	1.0	0.049	0.9872	0	105	76.2	134	1.31	20	
Ethylbenzene	1.0	0.049	0.9872	0.01723	102	75.8	137	3.32	20	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508237

14-Aug-15

Client: Souder, Miller &amp; Associates

Project: Humble State

Sample ID	1508237-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	FPN	Batch ID:	20670	RunNo:	28068					
Prep Date:	8/7/2015	Analysis Date:	8/10/2015	SeqNo:	845797	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.3	0.099	2.962	0.01941	112	78.9	133	2.13	20	
Surr: 4-Bromofluorobenzene	1.0		0.9872		105	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
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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



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: SMA-CARLSBAD

Work Order Number: 1508237

RcptNo: 1

Received by/date:

CD 08/06/15

Logged By: Lindsay Mangin

8/6/2015 10:05:00 AM

*Lindsay Mangin*

Completed By: Lindsay Mangin

8/6/2015 2:08:53 PM

*Lindsay Mangin*

Reviewed By:

TO 08/07/15

### 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?

UPS

### 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?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

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?

Yes ☒

No ☐

(If no, notify customer for authorization.)

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

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

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

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Yes			



# APPENDIX B

## FORM C141 FINAL



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 August 8, 2011

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	ALAMO PERMIAN RESOURCES, LLC	Contact	CARIE STOKER
Address	415 W. WALL ST. SUITE 500	Telephone No.	432 664 7659
Facility Name:	HUMBLE STATE/SINCLAIR A ST	Facility Type:	BATTERY
Surface Owner	STATE	Mineral Owner	
		API No.	30-15-03005

### LOCATION OF RELEASE

Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
19	17S	29E	1980	S	452	W	EDDY

### NATURE OF RELEASE

Type of Release: OIL	Volume of Release: 56 BBLS	Volume Recovered: 45 BBLS
Source of Release: OIL TANK	Date and Hour of Occurrence: JULY 29, 2015; AM Central Time	Date and Hour of Discovery JULY 29, 2015; AM Central Time
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? MIKE BRATCHER via PHONE	
By Whom? Carie Stoker	Date and Hour JULY 29, 2015, 2:05 P.M.	
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.\*

Cause of Problem: Oil tank was struck by lightning

Remedial Action Taken: Vacuum truck dispatched to remove any standing oil (recovered 45 bbls); Scraped top soil with backhoe

Describe Area Affected and Cleanup Action Taken.\*

Area Affected: Leak affected area extends outside of the battery containment wall to a nearby COG well; Souder, Miller & Assoc. conducted field screening of the affected areas. All samples indicated by field screening that the soils at the surface are at background levels of chlorides. Excavation was conducted to one foot bsg in the spill area to remove the soils affected. Approximately 30 cubic yards of contaminated soil were removed and replaced with clean backfill material to bring the excavated area to surface grade. All contaminated soil was placed on a liner, and fertilizer and water were added to support remediation of the impacted soil. The remediated soil will be used to reconstruct a secondary containment around the Humble State/Sinclair A battery. Please see the attached report for further details.

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

### OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Signature:

*Carie Stoker*

Printed Name: CARIE STOKER

Title: REGULATORY AFFAIRS COORDINATOR

Approval Date:

Expiration Date:

E-mail Address: carie@stokeroilfield.com

Conditions of Approval:

Attached ☒

Date: 8/26/2015

Phone: 432 664 7659

\* Attach Additional Sheets If Necessary