

March 21, 2017

#5B24624-BG33

Crystal Weaver Environmental Specialist NMOCD District II 811 South First St Artesia, NM 88210

SUBJECT: WORK PLAN FOR INCIDENT 2RP-4051, Paul 25 24S 28E RB #221H, UNIT D SECTION 25-T24S-R28E NMPM, API# 30-015-43018, EDDY COUNTY, NEW MEXICO

### **Dear Crystal Weaver:**

On behalf of Matador Resources Company (Matador), Souder Miller & Associates (SMA) is pleased to submit a work plan summarizing the planned soil remediation for the release site located at the Paul 25 24S 28E RB #221H in Eddy County, New Mexico. The purpose of the work plan is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for the remediation of the release that occurred on the production pad on December 25, 2016.

SMA responded at the request of Matador Resources Company, to assess and delineate the release of production fluids associated with Paul 25 24S 28E RB #221H well location. The release was initially reported to NMOCD by Matador Resources Company, on December 25, 2016 and was a result of human error. The table below summarizes information regarding the release. Results of the assessment, delineation are described in the following report.

Table 1: Release information and Site Ranking							
Name		Paul 25	24S 28E R	B #221H			
	Incident Number	API Number	, Township	nship, Range			
Location	2RP- 4051	30-015- 43018	NW/NE (Unit D)	Section 25	T24S, R28E NMPM		
Estimated Date of Release	December 25, 2016						
Date Reported to NMOCD	December 25, 2016, March 9, 2017						
Reported by	Catherine	Green					
Land Owner	Private						
Reported To	NM Oil Co	onservation	n Division (I	NMOCD)			
Source of Release	Human Ei	ror					
Released Material	Crude Oil						
Released Volume	~5 bbls Crude Oil						
Recovered Volume	2 bbls Crude Oil						
Net Release	3 bbls Cr	ude Oil					



Nearest Waterway	1.4 miles north of the location
Depth to Groundwater	Estimated to be 39 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	20
SMA Response Dates	Initial: 12/27/2016
Subcontractors	Diamondback
Disposal Facility	Lea Land
Estimated Yd3 Contaminated Soil Excavated and Disposed	30

A copy of the C-141 Initial is attached in Appendix B. For questions or comments pertaining to the release or the attached work plan, please feel free to contact either of us.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

Austin Weyant Project Scientist Cynthia Gray, CHMM Senior Scientist

## SOIL REMEDIATION WORK PLAN FOR INCIDENT 2RP-4051

## MATADOR RESOURCES COMPANY

PAUL 25 24S 28E RB #221H UL D, SECTION 25, T24S R28E, NMPM API #30-015-43018 EDDY COUNTY, NM



Prepared for: Matador Resources Company PO Box 1933, Roswell, NM 88202 Prepared by: Souder, Miller & Associates 201 S. Halagueno Carlsbad, NM 88221 575-689-7040

> March 21, 2017 SMA Reference 5B24624 BG33

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### 1.0 Introduction

On behalf of Matador Resources Company, Souder, Miller & Associates (SMA) has prepared this report that describes the assessment, initial delineation and proposed remediation for a release associated with the Paul 25 24S 28E RB #221H location API# 30-015-43018. The site is in Section 25, Township 24S, Range 28E NMPM, Eddy County, New Mexico, on private property. Figure 1 illustrates the vicinity and location of the site.

## 2.0 Site Ranking, Land Status, and Jurisdiction

The release site is located approximately 1.3 miles east of the Willow Lake, with an elevation of approximately 2,947 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be 39 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. Two wells are located within a one mile radius of the site. Figure 1 depicts the site vicinity and Figure 2 shows the site itself. The physical location of this release is on private property and is within the jurisdiction of NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned an NMOCD ranking of 20 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 100 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates the site ranking rationale.

### 3.0 Assessment and Initial Results

On December 27, 2016, SMA field personnel were on site to assess the release area using a Photo Ionization Detector (PID), and a mobile chlorides titration kit EPA method 9045D meter. The potentially affected area was found to be approximately 250 feet long and 35 to 3 feet wide. The site delineation samples were at surface initially. Following a four-inch scrape of the effected area, on December 30, 2016, further delineation occurred. Specific sample locations for all samples are depicted on Figure 2 (Site and Sample Location Map). Field screening sample results are detailed in Table 2. On 1/13/2017 further samples were collected for lab confirmation. All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Total Chlorides using EPA Method 300.0.

## 4.0 Soil Remediation Work Plan

SMA will begin the excavation of affected soils, with approval from area utilities owners via 811 and NMOCD. SMA will continuously guide the excavation activities by collecting composite soil samples for field screening with a mobile titration unit (EPA 4500) and a calibrated PID. Excavation will occur to depths of up to 1 foot bgs sufficient to remove the impacted materials to NMOCD requirements as indicated by the sample results in Table 2. Affected soils will be removed from these areas before closure samples are collected at the final depth of excavation and from the sidewalls. Approximately 30 cubic yards of contaminated soil are projected to be removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil will be transported for proper disposal at Lea Land, near Carlsbad, NM, an NMOCD permitted disposal facility.

## 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 20: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 100 ppm TPH.

When the soil remediation work plan is approved by NMOCD, SMA will begin soil remediation activities on site.

Soil contaminant concentrations found during the initial delineation are illustrated in Figure 2. A summary of the field analyses is included in Table 2. Laboratory reports are included in Appendix A.

## 6.0 Closure and Limitations

The scope of our services consisted of the performance of release assessment, initial delineation sampling and field screening, verification of release stabilization, regulatory liaison, and preparation of this work plan. 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.

Reviewed by:

Submitted by:

SOUDER, MILLER & ASSOCIATES

Austin Weyant Cynthia Gray, CHMM
Project Scientist Senior Scientist

## Figures:

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Location Map

### Tables:

Table 1: Release Information and Site Ranking

Table 2: Summary of Chloride Field Screening Results

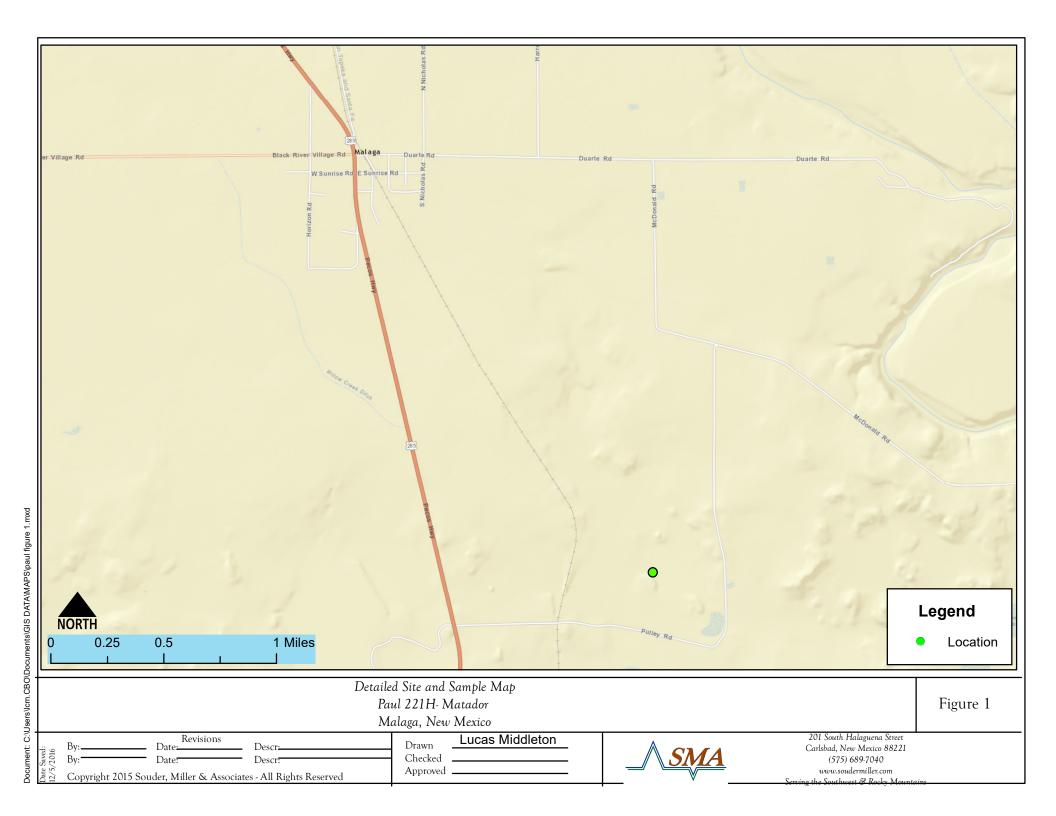
Table 3: Summary of Laboratory Analyses

### **Appendices:**

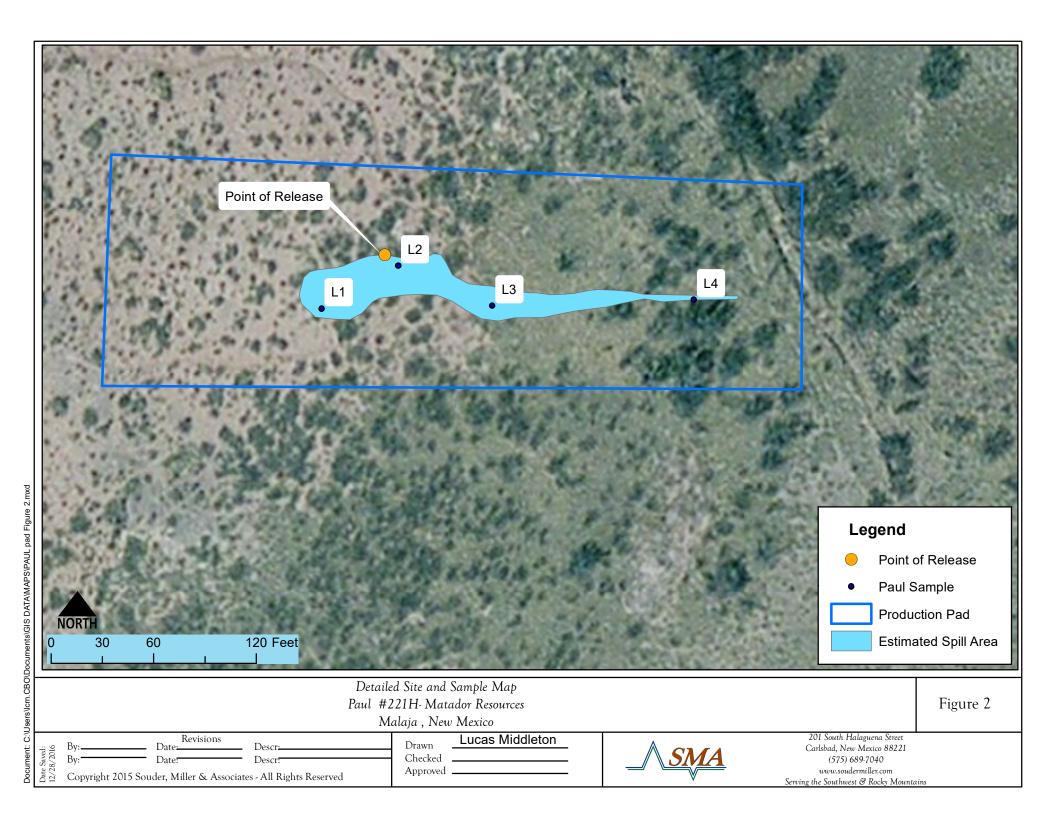
Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Initial

## FIGURE 1 VICINITY MAP



# FIGURE 2 DETAILED SITE AND SAMPLE LOCATION MAP



# TABLE 1 RELEASE INFORMATION AND SITE RANKING

Table 1: Release information and Site Ranking							
Name	Paul 25 24S 28E RB #221H						
	Incident Number	, Range					
Location	2RP-4051	30-015- 43018	NW/NE (Unit D)	Section 25	T24S, R28E NMPM		
Estimated Date of Release	December	25, 2016					
Date Reported to NMOCD	December	25, 2016					
Reported by	Catherine (	Green					
Land Owner	Private						
Reported To	NM Oil Cor	nservation [	Division (NN	ЛОCD)			
Source of Release	Human Err	or					
Released Material	Crude Oil						
Released Volume	~5 bbls Cr	ude Oil					
Recovered Volume	~2 bbls Cr	ude Oil					
Net Release	3 bbls Cruc	le Oil					
Nearest Waterway	1.4 miles r	north of the	location				
Depth to Groundwater	Estimated <sup>1</sup>	to be 39 fee	et				
Nearest Domestic Water Source	Greater th	an 1,000 fe	et				
NMOCD Ranking	20						
SMA Response Dates	Initial: 12/27/16						
Subcontractors	TBD						
Disposal Facility	Lea Land						
Estimated Yd3 Contaminated Soil Excavated and Disposed	~30						

# TABLE 2 SUMMARY OF CHLORIDE FIELD SCREENING RESULTS

## Table 1: Summary of Field Screening Results

FIELD SCREENING RESULTS SUMMARY									
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	PID Results				
12/27/2016	9:00	L1	Surface	2185	1,200				
12/27/2016	9:00	L2	Surface	1876	1,600				
12/27/2016	9:00	L3	Surface	1968	1,200				
12/27/2016	9:00	L4	Surface	1785	1,300				
2/20/2017	10:00	L2-2	2'	>200	BDL				
2/20/2017	10:00	L2-12	12'	1682	BDL				
					-				



# TABLE 3 SUMMARY OF LABORATORY ANALYSES

**Table 3: Summary of Laboratory Analyses** 

Analytical Report- 1701739	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	CI- mg/Kg
1701739- 001	L1	1/13/2017	Surface	N/A	N/A	2600	17000	150
1701739- 002	L2	1/13/2017	Surface	88	1.2	5700	28000	320
1701739- 003	L3	1/13/2017	Surface	N/A	N/A	4900	28000	330
1701739- 004	L4	1/13/2017	Surface	140	1.7	7400	29000	130
1702A52- 001	L2-2	2/20/2017	2'	>0.024	>0.094	>4.7	36	56
1702A52- 002	L2-12	2/20/2017	12'	>0.023	>0.094	>4.7	>10	1600

# 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

March 02, 2017

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

FAX

RE: Paul Pad OrderNo.: 1702A52

## Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/23/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Indest

4901 Hawkins NE

Albuquerque, NM 87109

## **Analytical Report**

## Lab Order **1702A52**Date Reported: **3/2/2017**

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Souder, Miller & Associates Client Sample ID: L2-2

 Project:
 Paul Pad
 Collection Date: 2/20/2017 10:00:00 AM

 Lab ID:
 1702A52-001
 Matrix: SOIL
 Received Date: 2/23/2017 9:20:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	56	30	mg/Kg	20	2/28/2017 10:50:01 PM	30454
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	;			Analyst	: TOM
Diesel Range Organics (DRO)	36	9.6	mg/Kg	1	3/1/2017 11:01:16 AM	30399
Surr: DNOP	93.0	70-130	%Rec	1	3/1/2017 11:01:16 AM	30399
EPA METHOD 8015D: GASOLINE RANG	SE .				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	2/28/2017 12:03:22 AM	30385
Surr: BFB	85.3	54-150	%Rec	1	2/28/2017 12:03:22 AM	30385
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	2/28/2017 12:03:22 AM	30385
Toluene	ND	0.047	mg/Kg	1	2/28/2017 12:03:22 AM	30385
Ethylbenzene	ND	0.047	mg/Kg	1	2/28/2017 12:03:22 AM	30385
Xylenes, Total	ND	0.094	mg/Kg	1	2/28/2017 12:03:22 AM	30385
Surr: 4-Bromofluorobenzene	89.5	80-120	%Rec	1	2/28/2017 12:03:22 AM	30385

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

				-			
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank			
	D	Sample Diluted Due to Matrix	E	Value above quantitation range			
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 6			
	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			

## **Analytical Report**

## Lab Order **1702A52**Date Reported: **3/2/2017**

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Souder, Miller & Associates Client Sample ID: L2-12

 Project:
 Paul Pad
 Collection Date: 2/20/2017 10:00:00 AM

 Lab ID:
 1702A52-002
 Matrix: SOIL
 Received Date: 2/23/2017 9:20:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	LGT
Chloride	1600	75	mg/Kg	50	3/2/2017 12:02:19 AM	30454
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	}			Analyst	: ТОМ
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/28/2017 1:49:46 PM	30399
Surr: DNOP	103	70-130	%Rec	1	2/28/2017 1:49:46 PM	30399
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	2/28/2017 12:29:40 AM	30385
Surr: BFB	90.5	54-150	%Rec	1	2/28/2017 12:29:40 AM	30385
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.023	mg/Kg	1	2/28/2017 12:29:40 AM	30385
Toluene	ND	0.047	mg/Kg	1	2/28/2017 12:29:40 AM	30385
Ethylbenzene	ND	0.047	mg/Kg	1	2/28/2017 12:29:40 AM	30385
Xylenes, Total	ND	0.094	mg/Kg	1	2/28/2017 12:29:40 AM	30385
Surr: 4-Bromofluorobenzene	97.5	80-120	%Rec	1	2/28/2017 12:29:40 AM	30385

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank			
	D	Sample Diluted Due to Matrix	E	Value above quantitation range			
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 6			
	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.

WO#: **1702A52** 

02-Mar-17

Client: Souder, Miller & Associates

**Project:** Paul Pad

Sample ID MB-30454 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 30454 RunNo: 41047

Prep Date: 2/28/2017 Analysis Date: 2/28/2017 SeqNo: 1286795 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID LCS-30454 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 30454 RunNo: 41047

Prep Date: 2/28/2017 Analysis Date: 2/28/2017 SeqNo: 1286796 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 92.4 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

W Sample container temperature is out of limit as specified

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## Hall Environmental Analysis Laboratory, Inc.

4.9

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WO#: **1702A52** 

02-Mar-17

Client: Souder, Miller & Associates

**Project:** Paul Pad

Sample ID LCS-30399 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 30399 RunNo: 41033 Analysis Date: 2/28/2017 Prep Date: 2/27/2017 SeqNo: 1285372 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 49 10 0 98.2 63.8 50.00 116 Surr: DNOP 4.7 5.000 93.9 70 130 Sample ID MB-30399 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 30399 RunNo: 41033 Analysis Date: 2/28/2017 Prep Date: 2/27/2017 SeqNo: 1285373 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 10.00 108 70 11 130 Sample ID LCS-30440 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 30440 RunNo: 41070 Analysis Date: 3/1/2017 Prep Date: 2/28/2017 SeqNo: 1286611 Units: %Rec SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

Sample ID MB-30440	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 30440	RunNo: 41070
Prep Date: 2/28/2017	Analysis Date: 3/1/2017	SeqNo: <b>1286612</b> Units: <b>%Rec</b>
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

98.6

106

70

70

130

130

5.000

10.00

#### Qualifiers:

Surr: DNOP

Surr: DNOP

- \* 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
- W Sample container temperature is out of limit as specified

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## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702A52

02-Mar-17

**Client:** Souder, Miller & Associates

**Project:** Paul Pad

Surr: BFB

Sample ID MB-30385 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: 30385 RunNo: 41013

Prep Date: 2/24/2017 Analysis Date: 2/27/2017 SeqNo: 1284702 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 830 1000 82.5 54 150

TestCode: EPA Method 8015D: Gasoline Range Sample ID LCS-30385 SampType: LCS

Client ID: LCSS Batch ID: 30385 RunNo: 41013

Prep Date: 2/24/2017 Analysis Date: 2/27/2017 SeqNo: 1284703 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 28 5.0 25.00 112 76.4 125 1000 1000 103 54

150

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η 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
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

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## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702A52

02-Mar-17

**Client:** Souder, Miller & Associates

**Project:** Paul Pad

Sample ID MB-30385 SampType: MBLK TestCode: EPA Method 8021B: Volatiles
Client ID: PBS Batch ID: 30385 RunNo: 41013

Prep Date: 2/24/2017 Analysis Date: 2/27/2017 SeqNo: 1284760 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 0.89 1.000 89.0 80 120

Sample ID LCS-30385	SampT	ype: <b>LC</b>	s	TestCode: EPA Method 802				tiles			
Client ID: LCSS	Batcl	n ID: <b>30</b>	385	F	RunNo: 4	1013					
Prep Date: 2/24/2017	Analysis D	Date: <b>2/</b>	27/2017	S	SeqNo: <b>1284761</b> U			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.96	0.025	1.000	0	96.5	75.2	115				
Toluene	0.99	0.050	1.000	0	99.4	80.7	112				
Ethylbenzene	0.98	0.050	1.000	0	98.3	78.9	117				
Xylenes, Total	3.0	0.10	3.000	0 100 79.2			115				
Surr: 4-Bromofluorobenzene	0.84		1.000		84.4	80	120				

#### 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

W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory 4901 Howkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4167

## Sample Log-In Check List

				Website: www.)	hallenvire	nmente	al.com		
Client Name;	SMA-CARL	SBAD	Work	Order Numbe	er: 1702	A52		RcptNo:	1
Received by/date	, L	M	02/	23/17					
ogged By:	Andy Jans	son	2/23/20	17 9:20:00 AM	м		whom		
Completed By:	Andy:	Jansson	02/23	117.					
Reviewed By:	. 4		02	24/17					
hain of Cust	ody	/		å.					
1. Custody seak	s intact on sa	ample bottles	37		Yes		No	Not Present 🗸	
2. Is Chain of Co	ustody comp	lete?			Yes	~	No	Not Present	
3. How was the	sample deliv	ered?			Cour	ier			
og In									
4. Was an atten	npt made to	cool the sam	ples?		Yes	V	No	NA 🗌	
5. Were all sam	ples receive	d at a tempe	rature of >0° C	to 6.0°C	Yes	<b>v</b>	No	NA 🗌	
δ. Sample(s) in	proper conta	iner(s)?			Yes	~	No 🗌		
7, Sufficient sam	nple volume	for indicated	test(s)?		Yes	~	No		
, Are samples (	except VOA	and ONG) p	roperly preserv	ed?	Yes	~	No 🗌		
. Was preserva	tive added to	o bottles?			Yes		No 🗸	NA [	
0.voa vials hav	e zero head	space?			Yes	10	No	No VOA Vials ✔	
1. Were any sar	mple contain	ers received	broken?		Yes		No 🗸	Page 2 August Common	
								# of preserved bottles checked	
<ol><li>Does paperwo</li><li>(Note discrepa</li></ol>			hΛ		Yes	~	No	for pH;	e > 10 malana mata
3. Are matrices of					Yes	~	No	Adjusted?	r >12 unless note
1. Is it clear what					Yes	~	No 🗔		
5.Were all holdii (If no, notify ci					Yes	~	No 🗌	Checked by:	
			,						
ecial Handli	ng (if app	licable)							
3, Was client not	ified of all di	screpancies	with this order?		Yes		No	NA 🗸	
Person I	Notified:			Date:					
By Whor	m:			Via:	eMa	1 []	Phone Fax	In Person	
Regardin									
Client In	structions:								
7. Additional ren	narks:								
<ol><li>Cooler Inform</li></ol>	nation								

Project Name: Project Name: Project #. Sampler. Container Preser Type and # Type	4	S	Record	Time	T			IAL	HALL ENVIRONMENTAL	IVIE	2	Z	E S	Y	_
Project #:   Project Manager.   Project Man	D'A C		10 (SP)		□ Rush		<b>Q</b>	N	LYS	IS L	A PE	ĕ.	Z-X-	O.R	>
Project ##  Project Manager:  Sampler:  Container Preservative 2				J.	1 12	4901	Hawki	ns NE	- Albu	dneudn	ē Ž	M 8710	60		
Analysis Request    Project Manager.   Sample   Topict Manager.				Project #:		Tel.	505-34	15-397	- E	x 505	345	4107			
Sample:   Sample:   Sample:   Container   Type and #   Type and #   Type   Ty							Sold Control		Analys	is Req	luest				
Received by  Recei				Project Manager:		J(Å)	100		V-12-07						
Sample:  Container  Container  Type and # TeALNo.  Type and # TeALNo.  Container  Type and # TeALNo.  Type	□ Level 4 (F	□ Level 4 (F	□ Level 4 (Full Validation)			(Gas or	W 100	(2)/(1)		250000000000000000000000000000000000000					
Sample Terperature: 2		10				HdJ				0.335/315/					(N
Container  Type and # TeAL No.  Type and # Type And # Type  BY Pasicide  RECRA & Metals  RECRA & Metals  Type BY Pasicide  RECRA & Metals  A Anions (F@N  ROS1 Pasicide  RECRA & Metals  A Anions (F@N  Received by  Received by  Date Time  Date Time	- Other			On Ice:		. +			S	91.50		(AC	_		10
Container  Type and # Type  Type and # Type and # Type  Type and # Type an			•	Sample Temperatu	re. 2,8	38.			ista	-	(A	οΛ-!	_		Y) :
	Matrix Sample	Sample	Sample Request ID			TM + X3T8			RCRA 8 Me	5.00	OV) 80928	mə2) 07S8			Air Bubbles
	501 105	17	2-2		100-					X					
by Date Time	7	J	2-12		700-					V				- 5	+
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by Date Time										-			-		
	Relinquished by: Relinquished by:	My:		Received by	23	Remarks:						111 7			

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

## APPENDIX B FORM C141 INITIAL

<u>District I</u> 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

Ammended Initial State of New Mexico

C-141

Energy Minerals and Natural Resources

Submit 1 Copy to appropriate District Office in accordance with 19,15,29 NMAC.

Scarts Fe. NIM 87505 State of New Mexico

Santa Fe, NM 87505

			Rele	ease Notific	ation	and Co	rrective	Action	1					
					C	OPERATOR x ☐ Initial Report ☐ Final Report								
Name of Co	mpany Ma	atador Resou	ırces			Contact Catherine Green								
Address 500	Address 500 N Main St Ste One Roswell NM 88201						Telephone No. 575-623-6601							
Facility Nan	ne Paul 25	24S 28E RI	3 221H		F	Facility Type Production Battery								
Surface Own	ner Fee	<u></u>		Mineral C	wner Fe	ee			API No	.30-015-4	3018			
				LOCA	ATION	ON OF RELEASE								
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/	West Line	County				
D	25	245	28E	359	FNL	NL 217 FWL Eddy								
	<u> </u>	La	titude32	.19484171	Lo	ongitude	04.0487226_			I				
				NAT	URE	OF REL	EASE	50000						
	Type of Release Oil						Volume of Release~5BBLs Volume Recovered ~2BBLs							
Source of Re	Source of Release Hauler left thief hatch open on oil tank						Date and Hour of Occurrence Dec 25 2016 8:00am 8:30am Date and Hour of Discovery Dec 25 2016							
Was Immedia	nte Notice (	Given? x□	Yes [	No Not R	equired									
By Whom? Ja	ason Thibo	deaux		<u> </u>		Date and F	lour Dec 25 20	16 8:45 s	m					
Was a Water	course Read	ched?				If YES, Vo	olume Impactir	ng the Wa	tercourse.					
			Yes x							·				
If a Watercou	irse was Im	pacted, Descr	ibe Fully.	nộc .										
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken.*										
	d not prope	erly close hate	h. Lease	operator discovere	ed open h	atch, closed	it, called for va	acuum tru	ck to vacuu	m up excess	s fluid or	n production		
pad.														
Describe Are	a Affected	and Cleanup.	Action Ta	ken.*										
Oil spilled or	n ground. S	oil will be san	npled for o	contaminants. Co	ntaminat	ed soil will t	e removed and	l replaced	after work	plan is appr	oved.			
ļ														
								1 1 .	1.1	B1B	1000	1		
I hereby cert	ify that the	information g	iven abov lo report a	e is true and comp nd/or file certain	plete to ti release n	ne best of my orifications a	knowledge an nd perform co	id underst rrective ac	and that pur ctions for rel	suant to INN leases whic	MOCD R h may en	uies and idanger		
public health	or the envi	ironment. The	acceptan	ce of a C-141 rep	ort by the	NMOCD n	arked as "Fina	ıl Report"	does not rel	ieve the op	erator of	liability		
should their	operations l	have failed to	adequatel	y investigate and	remediate	e contaminat	ion that pose a	threat to	ground wate	r, surface w	vater, hui	man health		
or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.						bes not rene	e the operator	or respon	isibility for C	ompnance	with any	y Other		
							OIL CC	NSER	VATION	DIVASI	ON			
Signature: Ca	therine Gree-								A 4	a ()	1, 1			
				77-		Approved by Environmental Specialist								
Printed Nam	e: Catherin	e Green					_1_1		0.7					
Title: Regula	atory Analy	st				Approval Da	ite: 3 21	14	Expiration	Date:				
E-mail Addr	ess:cgreen(	@ matadorreso	urces.con	1		Conditions of	of Approval:	Wis is	an	. Attache	🗖			
D . W .	0.0017	DI	575 (	7 2457	- 17	LMMel			Mate	• I'	:a 🔲			
* Attach Add	itional She	eets If Neces	sary	a s defeated	(	DILLIV	blumo.	Side	stem	1				
IDUAL	nal.	Initia	L (-	141	0	nthi	vill b	فرارا ف	date	d				
Parish.	DA's	+ INIH	al	(DVVe -	Ö		ingly	- 04						
LIAC?	open our	SCANA	ned	141 corre- withit	t.		7-7							
21.10.	J. 100	- C												

## APPENDIX C OSE DATA



## 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)

3 ,	,	\ I			9	, ,		,	,	,	
	POD										
	Sub-	C	QQ					ļ	Depth	Depth	Water
POD Number	Code basin C	ounty 6	4164	Sec Tws	Rng	X	Y	Distance	Well	Water C	Column
C 03833 POD1	С	ED 2	2 1 2	26 24S	28E	589014	3562545 🌍	660	96	55	41
C 03358 POD1	С	ED ′	1 4 1	26 24S	28E	588416	3562116 🌕	1287	135		

Average Depth to Water: 55 feet

Minimum Depth: 55 feet

Maximum Depth: 55 feet

**Record Count: 2** 

**UTMNAD83 Radius Search (in meters):** 

**Easting (X):** 589664.55 **Northing (Y):** 3562429.4 **Radius:** 1500