



November 25, 2016

#5B24624-BG16

Heather Patterson  
Environmental Specialist  
NMOCD District II  
1301 W Grand Ave  
Artesia, NM 88210

SUBJECT: FINAL CLOSURE REPORT FOR INCIDENT 2RP-3902, Charlie Sweeney 201H  
UNIT M SECTION 30-T23S-R28E NMPM, API# 30-015-43695, EDDY COUNTY, NEW MEXICO

Dear Ms. Patterson:

On behalf of Matador Resources Company (Matador), Souder Miller & Associates (SMA) is pleased to submit a Final Closure Report for the remediation of the release site located at the Charlie Sweeney 201H in Eddy County, New Mexico. The purpose of this report is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for closure of the release that occurred on private property on September 20, 2016.

SMA responded on September 20, 2016 at the request of Matador Resources Company, to assess and delineate the release of production fluids associated with the Charlie Sweeney 201H well location. The release was initially reported to NMOCD by Matador Resources Company, on September 20, 2016 and was a result of a human error. The table below summarizes information regarding the release. The table below summarizes information regarding the release. Results of the assessment, delineation, and remedial activities following the in Closure Report.

Table 1: Release information and Site Ranking					
Name	Charlie Sweeney 201H				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-3902	30-015-43695	SW/NE (Unit M)	Section 30	T23S, R28E NMPM
Estimated Date of Release	September 20, 2016				
Date Reported to NMOCD	September 20, 2016				
Reported by	Catherine Green				
Land Owner	Private				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Human Error				
Released Material	Produced Water				
Released Volume	25 bbls Produced Water				

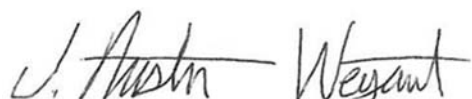


Recovered Volume	10 bbls Produced Water
Net Release	15 bbls Produced Water
Nearest Waterway	0.12 miles north of the location
Depth to Groundwater	Estimated to be 79 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	20
SMA Response Dates	9/21/16, 10/4/16 and 11/4/16
Subcontractors	Southwest Environmental
Disposal Facility	R360- Halfway Facility
Estimated Yd3 Contaminated Soil Excavated and Disposed	90

Attached is a copy of the C-141, located in Appendix B. For questions or comments pertaining to the release or the attached report, please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist

Reviewed by:



Shawna Chubbuck  
Senior Scientist

# SOIL REMEDIATION FINAL CLOSURE REPORT FOR INCIDENT 2RP-3902

## MATADOR RESOURCES COMPANY

CHARLIE SWEENEY 201H  
UL M, SECTION 30, T23S R28E, NMPM  
API #30-015-43695  
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

November 25, 2016  
SMA Reference  
5B24624 BG16

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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 remediation for a release associated with the Charlie Sweeney 201H location (API# 30-015-43695, Incident #2RP-3902). The site is located in Section 30, Township 23S, Range 28E NMPM, Eddy County, New Mexico, on private property. Figure 1 illustrates the vicinity and location of the site.

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

The release site is located approximately 2.5 miles north of the Black River, with an elevation of approximately 3,116 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be 79 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. Four 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 within the jurisdiction of NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned a 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 site ranking rationale.

## **3.0 Assessment and Initial Results**

On October 4, 2016 after receiving 811 clearance, SMA field personnel assessed the release area with soil samples collected using a gas powered auger. Samples were screened for hydrocarbons using a calibrated Photo Ionization Detector (PID), and for chlorides using a mobile chlorides titration kit (EPA method 9045D) meter. Field screening results are included in Table 2. The potentially affected area was determined to be approximately 140 feet long and 40 feet wide. The site delineation samples were taken to depths of 1.5 feet bgs. Samples indicate the impacted soil does not appear to extend past one foot bgs. Specific sample locations for all samples are depicted on Figure 2 (Sample Location Map). 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 analyses of BTEX (EPA Method 8021B), TPH (EPA Method 8015) and/or total chlorides (EPA Method 300.0).

Soil contaminant concentrations found during the initial delineation are included in Table 3. Laboratory reports are included in Appendix A. Photo documentation is available by request.

## **4.0 Soil Remediation Summary**

SMA began the excavation of affected soils on November 15, 2016, with approval from area utilities owners via 811 and NMOCD. SMA continuously guided the excavation activities by collecting composite soil samples for field screening with a mobile chlorides titration unit (NRCS1:1) and a calibrated PID. Excavation occurred to depths sufficient to remove soil exceeding NMOCD standards, up to 27 inches bgs. Closure samples for chlorides were

collected at the final depth of excavation and sidewalls. For Sample location 1 excavation could not occur due to the loadout equipment in that area. Approximately 90 cubic yards of contaminated soil were removed and replaced with clean backfill material sufficient to return the contours to surface gradient. The contaminated soil was transported to R360- Halfway Facility for proper disposal at an NMOCD permitted 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. The release consisted of produced water with little petroleum and evidence of significant petroleum impacts was not found during the initial assessment and delineation by SMA.

Laboratory analytical results for the closure sample collected was below NMOCD closure standards for benzene, BTEX, and TPH. Chlorides ranged from below detection limits (30 mg/Kg) to 3,500 mg/Kg. No further remedial activities are recommended. Soil sample locations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 3. Laboratory reports are included in Appendix C.

## **6.0 Limitations**

The scope of our services consisted of the performance of initial spill assessment sampling, verification of release stabilization, regulatory liaison, and preparation of this Closure Report. 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 Shawna Chubbuck at 505-325-7535.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist



Shawna Chubbuck  
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

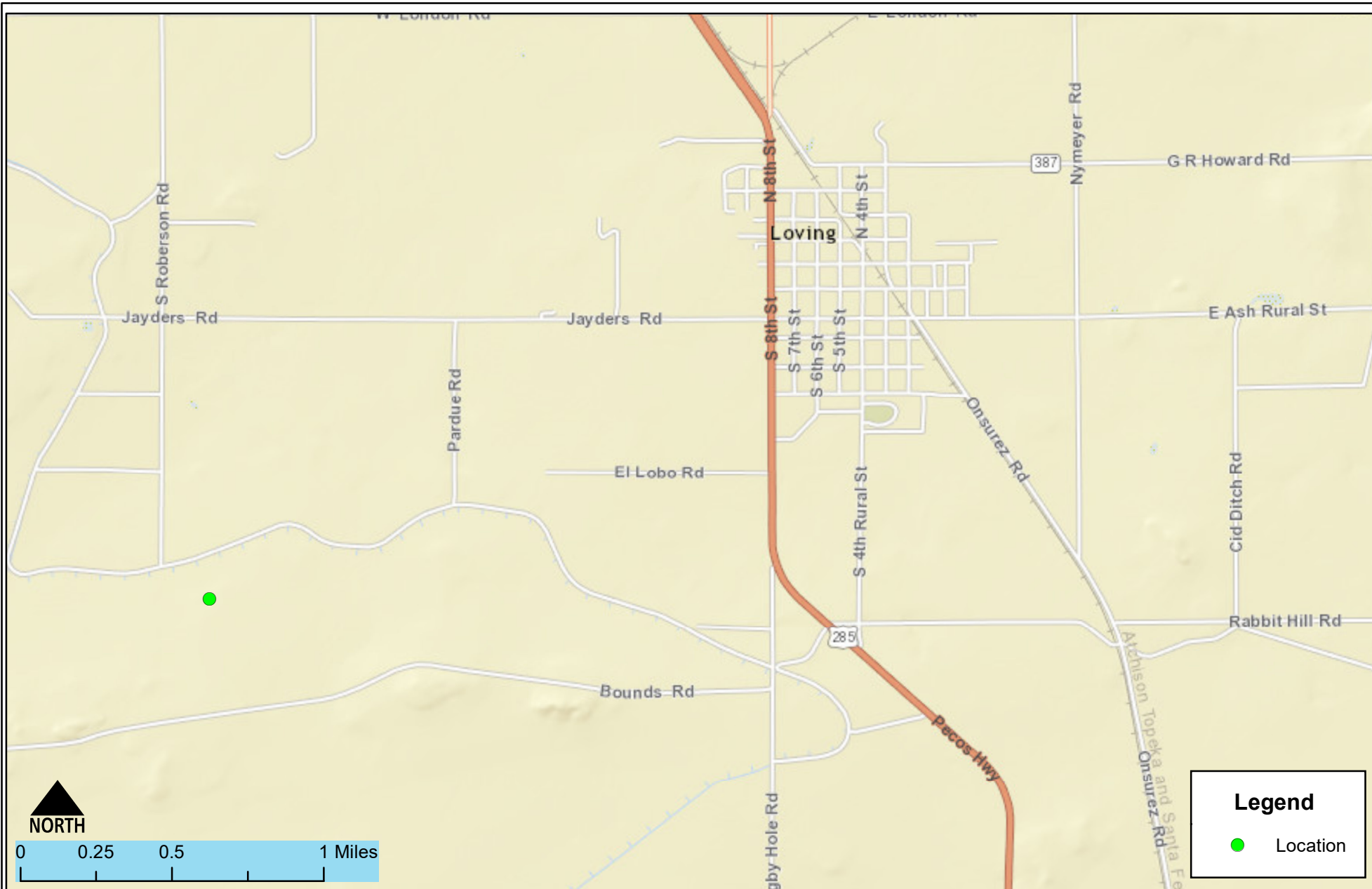
**Appendices:**

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

# FIGURE 1 VICINITY MAP





Vicinity Map  
Matador- Charlie Sweeney  
Loving, New Mexico

Figure 1

Date Saved: 12/6/2016	By: _____	Date: _____	Revisions	Descr: _____
	By: _____	Date: _____		Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved				

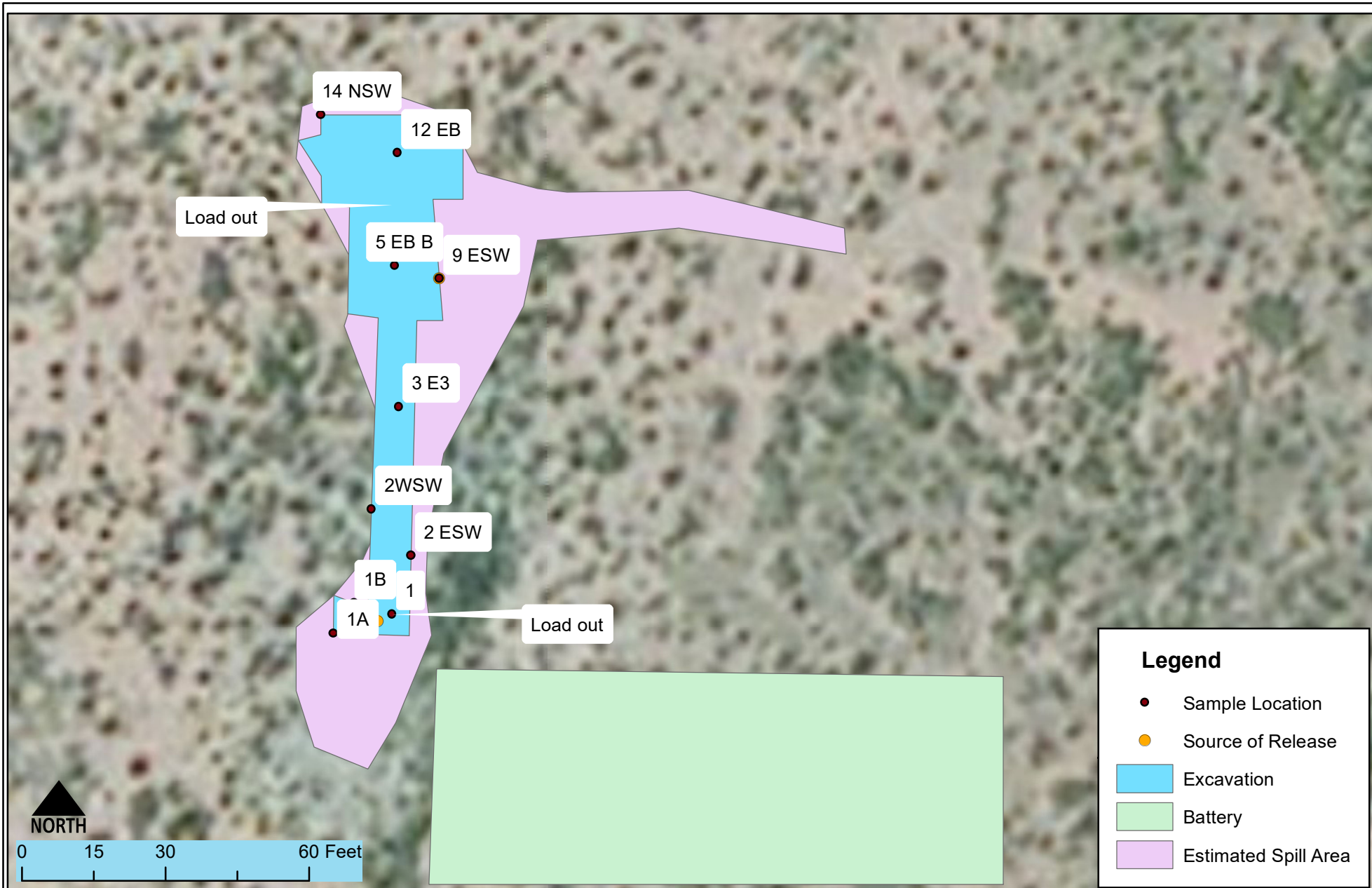
Drawn	Lucas Middleton
Checked	_____
Approved	_____



201 South Halaguena Street  
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**FIGURE 2**

**DETAILED SITE AND SAMPLE  
LOCATION MAP**



Detailed Site and Sample Location Map  
Matador- Charlie Sweeney  
Loving, New Mexico

Figure 2

Date Saved:  
12/6/2016

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

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Drawn	Lucas Middleton
Checked	_____
Approved	_____



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# TABLE 1

## RELEASE INFORMATION AND SITE RANKING

Table 1: Release information and Site Ranking					
Name	Charlie Sweeney 201H				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-3902	30-015-43695	SW/NE (Unit M)	Section 30	T23S, R28E, NM40M4
Estimated Date of Release	September 20, 2016				
Date Reported to NMOCD	September 20, 2016				
Reported by	Catherine Green				
Land Owner	Private				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Human Error				
Released Material	Produced Water				
Released Volume	25 bbls Produced Water				
Recovered Volume	10 bbls Produced Water				
Net Release	15 bbls Produced Water				
Nearest Waterway	0.12 miles north of the location				
Depth to Groundwater	Estimated to be 79 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	20				
SMA Response Dates	Initial: 9/21/16				
Subcontractors	Southwest Environmental				
Disposal Facility	R360 Halfway Facility				
Estimated Yd3 Contaminated Soil Excavated and Disposed	90				

# TABLE 2

## SUMMARY OF CHLORIDE FIELD SCREENING RESULTS

Table 2: Summary of Chloride Field Screening Results

Charlie Sweeney 201H  
Sample Event  
11/15/17

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	Lab Sample Collected Y/N
11/15/2017	7:50	CS #1 ESW	9.5"	1135	Y
11/15/2017	8:40	CS #1A WSW	14"	381	Y
11/15/2017	8:40	CS #1B NSW	14"	50	Y
11/15/2017	8:50	CS #2 ESW	1	4	Y
11/15/2017	8:50	CS #2 WSW	1	0	Y
11/15/2017	9:20	CS #3 E3	15"	0	Y
11/15/2017	11:16	CS #5 EB B	4	2436	Y
11/15/2017	2:00	CS #9 ESW	17"	130	Y
11/15/2017	2:40	CS #12 EB	22"	50	Y
11/15/2017	3:40	CS #14 NSW	2 ' 3"	906	Y



# TABLE 3

## SUMMARY OF LABORATORY ANALYSES



**Table 3: Summary of Laboratory Analyses**

Analytical Report- 1611A89	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1611A89-001	1	11/15/2016	14"	>0.025	>0.025	N/A	N/A	3500
1611A89-002	1A	11/15/2016	14"	N/A	N/A	N/A	N/A	530
1611A89-003	1B	11/15/2016	14"	N/A	N/A	N/A	N/A	270
1611A89-004	2 ESW	11/15/2016	1'	N/A	N/A	N/A	N/A	510
1611A89-005	2 WSW	11/15/2016	1'	N/A	N/A	N/A	N/A	110
1611A89-006	3 E3	11/15/2016	15"	N/A	N/A	N/A	N/A	51
1611A89-007	5 EB B	11/15/2016	15"	N/A	N/A	N/A	N/A	230
1611A89-008	12 EB	11/15/2016	22"	N/A	N/A	N/A	N/A	>30
1611A89-009	9 ESW	11/15/2016	17"	N/A	N/A	N/A	N/A	>30
1611A89-010	14 NSW	11/15/2016	27"	N/A	N/A	N/A	N/A	310

# 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)

December 02, 2016

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

RE: Charlie Sweney 201 H

OrderNo.: 1611A89

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/19/2016 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 1611A89

Date Reported: 12/2/2016

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 1

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 7:50:00 AM

**Lab ID:** 1611A89-001

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	3500	150		mg/Kg	100	11/30/2016 9:25:34 PM	28901
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	11/23/2016 9:48:53 AM	28824
Toluene	ND	0.049		mg/Kg	1	11/23/2016 9:48:53 AM	28824
Ethylbenzene	ND	0.049		mg/Kg	1	11/23/2016 9:48:53 AM	28824
Xylenes, Total	ND	0.099		mg/Kg	1	11/23/2016 9:48:53 AM	28824
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	11/23/2016 9:48:53 AM	28824

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 **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 1A

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 8:40:00 AM

**Lab ID:** 1611A89-002

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	530	30		mg/Kg	20	11/29/2016 11:40:20 AM	28901

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 **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 1B

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 8:00:00 AM

**Lab ID:** 1611A89-003

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LGT</b>	
Chloride	270	30		mg/Kg	20	11/29/2016 11:52:45 AM	28901

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 **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 2 ESW

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 8:00:00 AM

**Lab ID:** 1611A89-004

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	510	30		mg/Kg	20	11/29/2016 12:05:09 PM	28901

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 **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 3 WSW

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 8:20:00 AM

**Lab ID:** 1611A89-005

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LGT</b>	
Chloride	110	30		mg/Kg	20	11/29/2016 12:17:34 PM	28901

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 1611A89

Date Reported: 12/2/2016

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 3 E3

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 8:20:00 AM

**Lab ID:** 1611A89-006

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	51	30		mg/Kg	20	11/29/2016 12:29:59 PM	28901

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 **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 5 EB B

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 11:16:00 AM

**Lab ID:** 1611A89-007

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	230	30		mg/Kg	20	11/29/2016 1:07:12 PM	28901

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 1611A89

Date Reported: 12/2/2016

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 12 EB

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 2:40:00 PM

**Lab ID:** 1611A89-008

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	11/29/2016 1:19:37 PM	28901

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
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 9 ESW

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 2:00:00 PM

**Lab ID:** 1611A89-009

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	11/29/2016 1:32:02 PM	28901

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
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1611A89**

Date Reported: **12/2/2016**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** 14 NSW

**Project:** Charlie Sweney 201 H

**Collection Date:** 11/15/2016 3:40:00 PM

**Lab ID:** 1611A89-010

**Matrix:** SOIL

**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	310	30		mg/Kg	20	11/29/2016 1:44:26 PM	28901

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#: 1611A89

02-Dec-16

Client: Souder, Miller &amp; Associates

Project: Charlie Sweney 201 H

Sample ID	MB-28901		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 28901		RunNo: 39040					
Prep Date:	11/29/2016		Analysis Date: 11/29/2016		SeqNo: 1221142		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28901		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 28901		RunNo: 39040					
Prep Date:	11/29/2016		Analysis Date: 11/29/2016		SeqNo: 1221143		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A89

02-Dec-16

**Client:** Souder, Miller & Associates

**Project:** Charlie Sweney 201 H

Sample ID <b>MB-28824</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>28824</b>		RunNo: <b>38948</b>							
Prep Date: <b>11/22/2016</b>	Analysis Date: <b>11/23/2016</b>		SeqNo: <b>1218290</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	0.99		1.000		98.6	80	120			

Sample ID <b>LCS-28824</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>28824</b>		RunNo: <b>38948</b>							
Prep Date: <b>11/22/2016</b>	Analysis Date: <b>11/23/2016</b>		SeqNo: <b>1218291</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.3	75.2	115			
Toluene	0.88	0.050	1.000	0	88.4	80.7	112			
Ethylbenzene	0.86	0.050	1.000	0	85.8	78.9	117			
Xylenes, Total	2.6	0.10	3.000	0	86.0	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID <b>1611A89-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>1</b>	Batch ID: <b>28824</b>		RunNo: <b>38948</b>							
Prep Date: <b>11/22/2016</b>	Analysis Date: <b>11/23/2016</b>		SeqNo: <b>1218293</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.024	0.9434	0	103	71.5	122			
Toluene	1.0	0.047	0.9434	0	109	71.2	123			
Surr: 4-Bromofluorobenzene	1.0		0.9434		109	-83.4	338			

Sample ID <b>1611A89-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>1</b>	Batch ID: <b>28824</b>		RunNo: <b>38948</b>							
Prep Date: <b>11/22/2016</b>	Analysis Date: <b>11/23/2016</b>		SeqNo: <b>1218294</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9470	0	121	71.5	122	16.1	20	
Toluene	1.1	0.047	0.9470	0	114	71.2	123	4.61	20	

### 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: SMA-CARLSBAD

Work Order Number: 1611A89

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

11/19/2016 8:15:00 AM

Completed By: Lindsay Mangin

11/21/2016 9:16:31 AM

Reviewed By:

AS

11/21/16

### Chain of Custody

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

### Log In

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

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

### Special Handling (if applicable)

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

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			



Client: SUA - CARLSBAD

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

☒ Standard ☐ Rush

Project Name:

Charlie Sweeney 201 H

Project #:

Project Manager:

Arnth Weyant

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 18

HEAL No  
16111A88

Container Type and #

Preservative Type

Sample Request ID

Matrix

Date

Time

5-16

1:50

Soil

1

AA

1A

2 ESW

3 VSW

3 E3

5 E3 B

12 EB

9 ESW

14 N5W

340

N

11/16

2:40

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# 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 Matador Resources Company	Contact Catherine Green
Address 500 n Main St Ste One Roswell NM 88201	Telephone No. 575-623-6601
Facility Name Charlie Sweeney 201 H	Facility Type Production Battery

Surface Owner Fee	Mineral Owner	API No. 30-015-43695
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### LOCATION OF RELEASE

Unit Letter M	Section 30	Township 23S	Range 28E	Feet from the 492	North/South Line South	Feet from the 497	East/West Line West	County Eddy
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Latitude \_32.2700693      Longitude \_104.133231

### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 25bbls	Volume Recovered 10bblsValv
Source of Release Valve not closed properly	Date and Hour of Occurrence 9/20/2016 6am	Date and Hour of Discovery 9/20/2016 6am
Was Immediate Notice Given? Required x <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not	If YES, To Whom? Catherine Green	
By Whom? Heith Gaspard	Date and Hour 9/20/2016 10am	
Was a Watercourse Reached? <input type="checkbox"/> Yes    x <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Water hauler did not properly close load valve. Lease operator discovered open valve, closed it, and called for vacuum truck to vacuum up excess fluid on production pad.

Describe Area Affected and Cleanup Action Taken.\*

Produced water spilled on ground around load line. Soil will be sampled for contamination. Contaminated soil will be removed and replaced.

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: <i>Catherine Green</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Catherine Green		Approved by Environmental Specialist:	
Title: Regulatory Analyst		Approval Date:	Expiration Date:
E-mail Address: cgreen@matadorresources.com		Conditions of Approval:	
Date: 12/07/2016      Phone: 575-627-2453		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary