

NOT APPROVED

The site has not been fully delineated.
Heavy oil staining just beneath surface on
the west and south sides of the battery.
Site must be fully delineated and work plan
addressing any contamination must be
submitted no later than 9/12/2016

Gandy Corporation
Nuckols Battery 24 #1

Closure

Section 24, Township 7S, Range 31E
Chaves County, New Mexico

30-005-20736

August 04, 2016



Prepared for:

Cross Border Resources
14282 Gillis Rd.,
Farmers Branch, TX 14282

By:

Safety & Environmental Solutions, Inc.
703 East Clinton Street
Hobbs, New Mexico 88240
(575) 397-0510

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I. Company Contacts

Representative	Company	Telephone	E-mail
Ross Pearson	Red Mountain Resources	575-748-1844	Brett.Fulks@dmv.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Red Mountain Resources to assess a spill area on the Nuckols Battery, concerning a One Hundred and Sixty (160) bbl. release comprised of oil and produced water. This site is situated in Chaves County, Section 24, Township 7S, and Range 31E.

According to the C-141: Vandals opened the load line valves on the oil and water tanks allowing all of the contained fluids to impact ground surface. The spill area was mapped, using a Trimble Juno 3B. Whereby, the total area of impact was estimated to be 4,441 sq. ft. The NMOCD and BLM respectively, were notified on March 20, 2016, and the C-141 filed and stamped by the NMOCD on March 24, 2016 assigning this event number **1RP-4222** (Appendix A).

III. Surface and Ground Water

There is no record of groundwater in the immediate vicinity of the site location. Further research of the New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 238' bgs. Thereby, posing no eminent threat or danger to life forms in the area (Appendix B).

IV. Work Performed

On April 11, 2016 SESI personnel together with equipment and personnel from Gandy Corporation were onsite to photograph, assess and map the spill area. The backhoe removed all heavy hydro carbon staining. SESI personnel were present to conduct simultaneous field testing to perform confirmation sampling. Field tests were conducted of the representative soil samples. Approximately 35 yds. Of impacted soil were removed and disposed of at an NMOCD approved facility. The results of field tests are presented in the table below.

Soil Sample Results: Field Tests 04-11-16		
SAMPLE ID	TPH	CHLORIDES
TT-1 @ 6"	06 ppm	156 ppm
TT-1 @ 1.5'	No test	<108 ppm
TT-2 @ 6"	06 ppm	<108 ppm
TT-2 @ 1.5'	No test	<108 ppm

On June 28, 2016 SESI personnel met with Representative Jamie Keyes of the NMOCD, in

order to ve

Based on the request of Mr. Keyes of the NMOCD, SESI personnel returned to the site to install an auger hole to a depth of 1' bgs., slightly to the Northwest of the impacted area (Figure 2). A representative soil sample was taken from the surface and at a depth of 1' bgs., properly packaged, preserved and transported to Cardinal Laboratories of Hobbs, NM

by chain of custody, and analyzed for Chloride (Method SM4500Cl-B). The results are recapped in the following table:

Lab Confirmation Sample Date 07-01-16	
SAMPLE ID	CHLORIDES
AH-1 Surface	<16.0 mg/kg
AH-1 1'	<16.0 mg/kg

VII. Request for Closure

Based on the results of the confirmation sampling, Red Mountain Resources respectfully submits this closure report for your consideration, and requests that no further action be required.

VIII. Figures & Appendices

Figure 1 - Vicinity Map
Figure 2 - Site Plan
Appendix A – C-141
Appendix B – Groundwater
Appendix C – Analytical Results
Appendix D – Photo Documentation

Figure 1

Vicinity Map



Survey


1996

© 2016 Google

Google earth

Imagery Date: 9/30/2014 33°41'20.72" N 103°44'02.09" W elev 4390 ft eye alt 12605 ft

Figure 2
Site Plan

 **Nuckols**



TT-1 @ 6" = 156 ppm
TT-1 @ 1.5' = <108 ppm



TT-2 @ 6" = <108 ppm
TT-2 @ 1.5 = <108 ppm

Survey

© 2016 Google

Google earth

 1996

Imagery Date: 9/30/2014 33°41'12.70" N 103°44'00.77" W elev 4391 ft eye alt 4607 ft

Appendix A

Final C-141

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: Cross Border Resources	Contact: Ross Pearson	
Address: 14282 Gillis Rd., Farmers Branch Tx 14282	Telephone No. 469-995-0425	
Facility Name: Nuckols Battery	Facility Type: Tank Battery	
Surface Owner: Jake, Maureen Howards	Mineral Owner: Nuckols et al	API No. 30-005-20736

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	24	7 S	31E	660'	South	660"	West	Chaves

Latitude 33.6868973 Longitude -103.7333984

NATURE OF RELEASE

Type of Release Oil and Produced Water	Volume of Release: 160 Bbls	Volume Recovered: None
Source of Release: Load Lines	Date and Hour of Occurrence 3/18/2016, Unknown	Date and Hour of Discovery 3/19/2016 10:00 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Baldo Vasquez, Chaves County Sheriff Kellie Jones, NMOCD, Harley Davis BLM	
By Whom? Joseph Urban, Ross Pearson	Date and Hour: 3/19/2016, 11:00 AM Sheriff, and 3/20/2016, 2:24 PM	
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.*

Vandals opened the load line valves on the oil and water tanks allowing entire fluid to be drained onto location. Nor sure of the exact time of release. Fluids had impacted ground surface. Contacted sheriff first to establish a case for the criminal activity.

Describe Area Affected and Cleanup Action Taken.*

Approximately 35 Bbls of oil were released from the oil load lines impacting an area of approximately 4,441 sq. ft. The primary area impacted remained on the pad. SESI has remediated the site in accordance with NMOCD and BLM guidelines.

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.

		<u>OIL CONSERVATION DIVISION</u>	
Signature:	Approved by Environmental Specialist:		
Printed Name:			
Title:	Approval Date:	Expiration Date:	
E-mail Address:	Conditions of Approval:		Attached <input type="checkbox"/>
Date: Phone:			

* Attach Additional Sheets If Necessary

Appendix B

Groundwater



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11245 POD1			CH	3	3	1	20	07S	31E	610806	3728777*	220	180	40
RA 11251 POD1			CH	1	2	4	10	07S	31E	615240	3731841*	210	190	20
RA 11252 POD1			CH	2	4	2	10	07S	31E	615436	3732243*	210		
RA 11255 POD1			CH	2	4	4	04	07S	31E	613805	3733024*	450	350	100
RA 11256 POD1			CH	2	4	4	04	07S	31E	613805	3733024*	450	350	100
RA 11260 POD1			CH	1	2	3	26	07S	31E	616038	3727739	158	120	38

Average Depth to Water: **238 feet**

Minimum Depth: **120 feet**

Maximum Depth: **350 feet**

Record Count: 6

PLSS Search:

Township: 07S

Range: 31E

*UTM location was derived from PLSS - see Help

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

Appendix C

Analytical Results



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 12, 2016

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: GAN-16-002

Enclosed are the results of analyses for samples received by the laboratory on 07/06/16 9:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
Bob Allen
703 East Clinton
Hobbs NM, 88240
Fax To: (575) 393-4388

Received: 07/06/2016
Reported: 07/12/2016
Project Name: GAN-16-002
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/01/2016
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: AH-1 SURFACE (H601505-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/07/2016	ND	416	104	400	0.00		

Sample ID: AH-1 1' (H601505-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/07/2016	ND	416	104	400	0.00		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

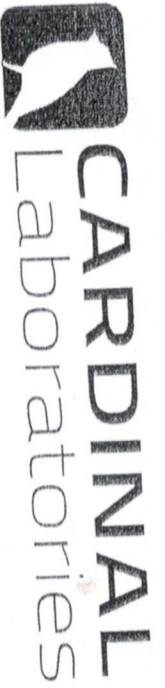
Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

22

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Safety and Environmental Solutions

Project Manager: Bob Allen

Address: 703 East Clinton, PO Box 1613

City: Hobbs State: NM Zip: 88240

Phone #: 575 397-0510 Fax #: 575 393-4388

Project #: 64M-16-002 Project Owner:

Project Name:

Project Location:

Sampler Name:

FOR LAB USE ONLY

BILL TO

P.O. #:

Company: Same

Attn:

Address:

City:

State: Zip:

Phone #:

Fax #:

ANALYSIS REQUEST

Lab I.D. Sample I.D.

H1601505

1 AH-1 Surface
2 AH-1 (R)

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

07/01 1600
07/01 1605

Ch boundary

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Reimbursement By:

Date: 07/01/16

Received By:

Sanjour

Date: 0800

Heidi Shender

Requisitioned By:

Date:

Received By:

Delivered By: (Circle One)

25.40

Sample Condition
Cool ☒ Intact ☒
Yes ☒ No ☐

CHECKED BY:

Sampler - UPS - Bus - Other:

76

Appendix D

Site Photos

Gandy
Nuckols 24 #1 Location



Sign marking location



Release Point



Release Point Area



Impacted area West side of location



Pasture Impact



Fluid run Southwest pasture area

Gandy
Nuckols 24 #1 Location



Spill run impacting pasture



Impacted area west of location



Spill run looking south



Spill traverse west onto lease road



Spill Run North side



Surface Removal of north side

Gandy
Nuckols 24 #1 Location



Standing fluid west of pad



Removal of surface impact



Impact inside bermed area



Surface removal

Gandy
Nuckols 24 #1 Location



Test Trench



Test Trench



Surface removal at release point



Stockpiled soil