APPROVED

Devon Energy Production Co LP
Bell Lake 24 Federal 1H

Work Plan

Unit Letter M, Section 24, T24S, R32E
Lea County, New Mexico

30-025-41182

December 13, 2016

Prepared for:

Devon Energy Production Co., LP
6488 Seven Rivers Hwy
Artesia, New Mexico 88211

By:

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

TABLE OF CONTENTS

I. Company Contacts

Representative	Company	Telephone	E-mail
Brett Fulks	Devon Energy Prod.	575-748-1844	Brett.Fulks@dvn.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 Devon Energy to perform site remediation on the Bell Lake 24 Federal 1H, concerning a ten (10) bbl. release of oil. This site is situated in Lea County, Section 24, Township 24S, and Range 32E.

According to the C-141: Due to weather conditions, the main way cover flange froze causing the three phase production vessel separator to blow off and spray 10 bbl. of oil on location and into the pasture. The three phase vessel was immediately bypassed to stop the release. The approximate affected area was 20ft X 50ft on the west side of the location. Approximately less than 4 bbl. of the released oil sprayed in a westerly direction away from the pad into the pasture. A vacuum truck recovered 4 bbl. of the released oil. SESI was contacted to assess the area for remediation. The NMOCD and BLM were notified on January 5, 2016.

III. Surface and Ground Water

The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 380' bgs.

IV. Characterization

The target cleanup levels are determined using the *Guidelines for Remediation of Leaks, Spills and Releases* published by the NMOCD (August 13, 1993). Based on the ranking criteria presented below, the applicable Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) Benzene, 50 ppm combined benzene, toluene, ethyl benzene, and total xylenes (BTEX), and 5,000 ppm Total Petroleum Hydrocarbons (TPH). Characterization of vertical extent of chloride concentration to a level of 250 mg/kg (PPM) is also required.

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	**X**
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	**X**
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	**X**
RANKING SCORE (TOTAL POINTS)			**0**

V. Work Performed

On November 7, 2016 SESI was onsite to photograph, assess and map the spill area.

On November 28, 2016, SESI personnel was onsite to install auger holes to determine vertical extent of contamination. Shawn Young (Devon) was contacted to advise that SESI is onsite to hand auger the site and no mechanical equipment would be used to delineate. Shawn said it was OK and would not have to be onsite. SESI set up and began installing the auger holes. Auger hole one was installed to the depth of two feet, where soil samples were obtained and field tested for Chlorides at surface, one and two feet. All field test results were under the 250 ppm. Auger holes two, three and four were installed to the depth of refusal at two feet in depth. Soil samples were obtained and field tested at surface, one and two feet. The results on all samples were under the 250 ppm. The auger holes and sample points were mapped using the Juno 3B and site photos were taken. The field test for TPH was performed at the SESI lab and results were under 100 ppm. All soil samples were properly packaged, preserved and transported to Cardinal Laboratories of Hobbs, NM by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), and Chlorides (Method SM4500Cl-B). The results are presented in the table below:

Soil Sample Results: Cardinal Laboratories 11-28-16								
SAMPLE ID	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO
AH-1 Surface	<0.050	<0.050	<0.050	0.245	<0.300	<16.0	<10.0	4750
AH-1 1’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	10.4
AH-1 2’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	<10.0
AH-2 Surface	<0.050	0.059	<0.050	0.151	<0.300	<16.0	18.8	4590
AH-2 1’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	12.9
AH-2 2’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	<10.0
AH-3 Surface	<0.050	0.152	0.466	2.46	3.08	48.0	91.5	7900
AH-3 1’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	17.3
AH-3 2’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	<10.0
AH-4 Surface	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	<10.0
AH-4 1’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	<10.0
AH-4 2’	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0	<10.0	<10.0

VI. Action Plan

The leak was primarily a mist that gave a light coating to the area. Due to little to no contamination, and the results listed above, it is proposed that the surface be applied with a micro blaze. Upon completion of this activity, all necessary closure documentation related to this incident will be submitted to Devon Energy.

VII. 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

Bell Lake 24 Federal 1 H

10 BBLS Oil 1-04-2016

devon

This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Sarah
Map is current as of 06-Jan-2016

N

Miles
0 0.01 0.02 0.04 1: 1,779

GoogleWMSRoadmap

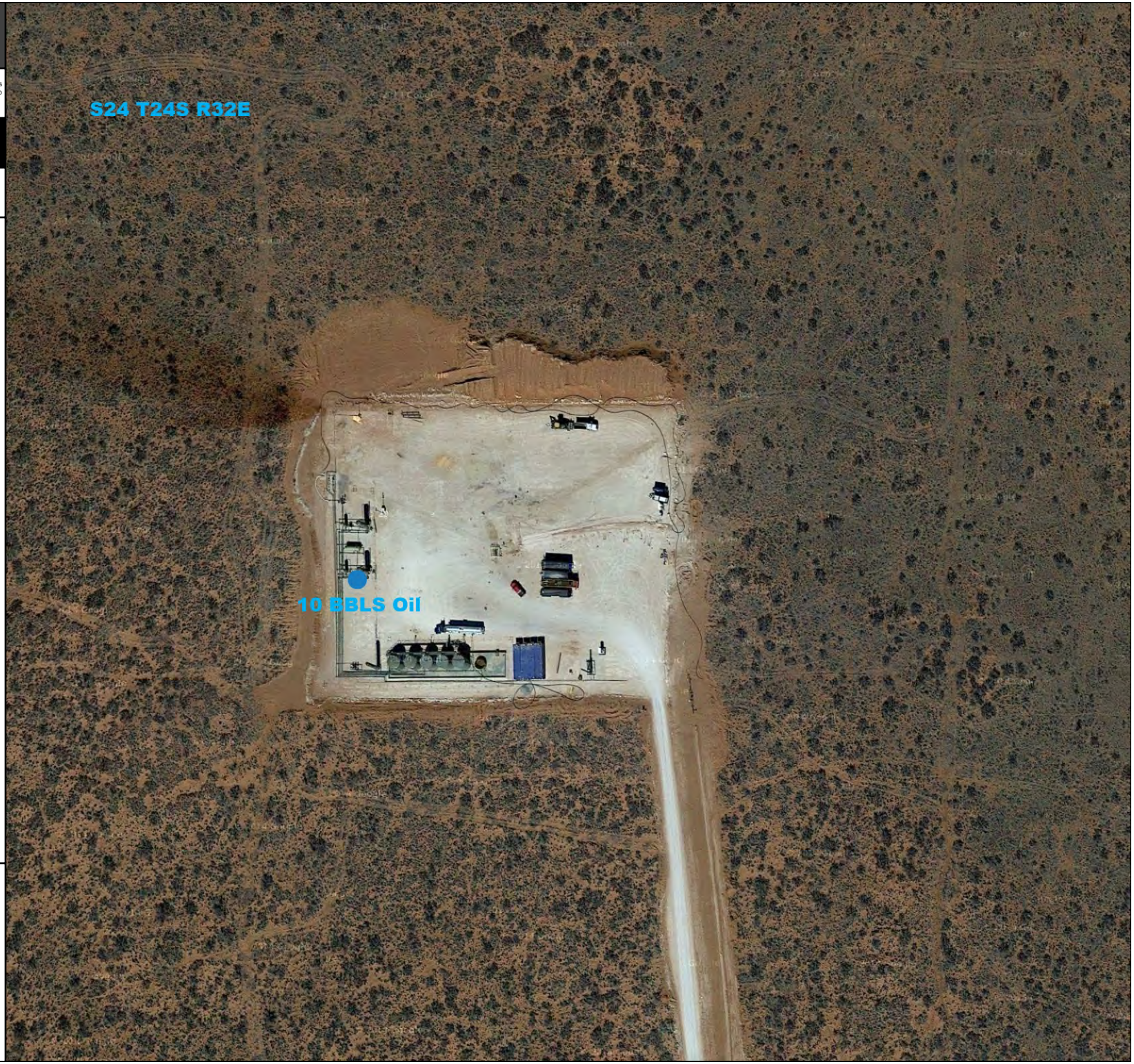
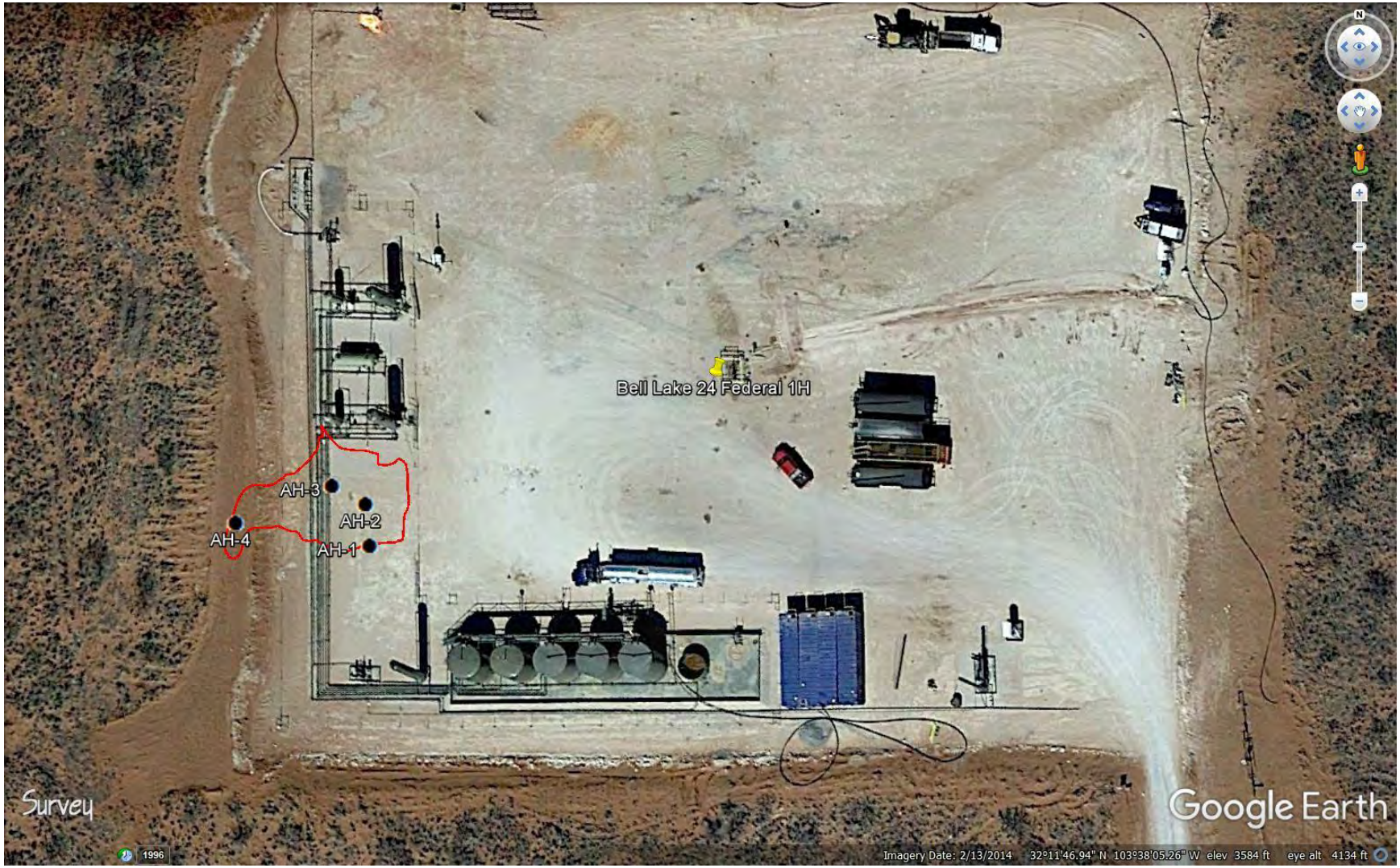


Figure 2
Site Plan


Bell Lake 24 Federal 1H
AH-3
AH-2
AH-4
AH-1
Survey
Google Earth
1996
Imagery Date: 2/13/2014 32°11'46.94" N 103°38'05.26" W elev 3584 ft eye alt 4134 ft

Appendix A
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 Devon Energy Production Company	**Contact** Randy Gladden, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	**Telephone No.** 575-513-9463
Facility Name Bell Lake 24 Federal 1 H	**Facility Type** Oil

Surface Owner Federal	**Mineral Owner** Federal	**API No** 30-025-41182

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	24	24S	32E	200	South	660	West	Lea

Latitude: 32.196434 **Longitude:** 103.6347809

NATURE OF RELEASE

Type of Release Spill Oil	**Volume of Release** 10 BBLS	**Volume Recovered** None
Source of Release Three phase vessel	**Date and Hour of Occurrence** 01/04/2016 9:30am	**Date and Hour of Discovery** 01/04/2016 9:30am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** BLM- Jim Amos-voicemail OCD- Kellie Jones-Voicemail	
By Whom? Santiago (Jim) Huerta	**Date and Hour** BLM- 1/05/2016 @ 7:00am OCD- 1/05/2016 @ 7:10am	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse** N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*
Due to the weather the man way cover flange froze causing the three phase production vessel separator to blow off and spray 10 BBLS of oil on location and into pasture. The three phase vessel was immediately bypassed to stop release.

Describe Area Affected and Cleanup Action Taken.*
10 BBLS of oil was released affecting an area approximately 20ft x 50ft on the west side of the location. Approximately less than 4 BBLS of the released oil sprayed in a Westerly direction away from the pad into the pasture. 4 BBLS of released oil was recovered via vacuum truck. Environmental agency will be contacted for remediation.

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: *Sarah Gallegos-Troublefield*	OIL CONSERVATION DIVISION	
Printed Name: Sarah Gallegos-Troublefield	Approved by Environmental Specialist:	
Title: Field Admin Support	Approval Date:	Expiration Date:
E-mail Address: Sarah.Gallegos-Troublefield@dvn.com	Conditions of Approval:	Attached ☐
Date: 1/06/2016 Phone: 575.748.1864		

* 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-basin	Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01932	C		ED		3	1	12	24S	32E	628633	3567188*	492		
C 02350			ED		4	3	10	24S	32E	625826	3566333*	60		
C 03527 POD1	C		LE	1	2	3	03	24S	32E	625770	3568487	500		
C 03528 POD1	C		LE	1	1	2	15	24S	32E	626040	3566129	541		
C 03530 POD1	C		LE	3	4	3	07	24S	32E	620886	3566156	550		
C 03555 POD1	C		LE	2	2	1	05	24S	32E	622709	3569231	600	380	220

Average Depth to Water: **380 feet**

Minimum Depth: **380 feet**

Maximum Depth: **380 feet**

Record Count: 6

PLSS Search:

Township: 24S **Range:** 32E

***UTM location was derived from PLSS - see Help**

Appendix C – Analytical Results

CARDINAL Laboratories

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

November 30, 2016

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: DEV-16-016

Enclosed are the results of analyses for samples received by the laboratory on 11/28/16 8:00.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/28/2016	Sampling Date:	11/23/2016
Reported:	11/30/2016	Sampling Type:	Soil
Project Name:	DEV-16-016	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: AH-1 SURFACE (H602638-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-1 1' (H602638-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-1 2' (H602638-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**896**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-1 3' (H602638-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	11/29/2016	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/28/2016	Sampling Date:	11/23/2016
Reported:	11/30/2016	Sampling Type:	Soil
Project Name:	DEV-16-016	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: AH-2 SURFACE (H602638-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-2 1' (H602638-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1150**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-2 2' (H602638-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-2 3' (H602638-08)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-3 SURFACE (H602638-09)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	11/29/2016	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/28/2016	Sampling Date:	11/23/2016
Reported:	11/30/2016	Sampling Type:	Soil
Project Name:	DEV-16-016	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: AH-3 1' (H602638-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	11/29/2016	ND	416	104	400	0.00	

Sample ID: AH-3 2' (H602638-11)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	11/29/2016	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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 #:	DEV-16-016 Project Owner:
Project Name:	
Project Location:	
Sampler Name:	

BILL TO

P.O. #:	
Company:	Same
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

Chlorides

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	
H602638															
1	AH-1 Surface	G	1			X					X		11/23	1010	X
2	AH-1 1'	G	1			X					X			1015	X
3	AH-1 2'	G	1			X					X			1030	X
4	AH-1 3'	G	1			X					X			1050	X
5	AH-2 Surface	G	1			X					X			1110	X
6	AH-2 1'	G	1			X					X			1115	X
7	AH-2 2'	G	1			X					X			1135	X
8	AH-2 3'	G	1			X					X			1155	X
9	AH-3 Surface	G	1			X					X			1200	X
10	AH-3 1'	G	1			X					X		11/23	1220	X

Relinquished By:	Date: 11/28/16	Received By: Jodi Henson	
Relinquished By:	Time: 0800	Received By:	
	Date:		
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: #75 4.3°C

Sample Condition: Cool: ☑ Yes ☐ No; Intact: ☑ Yes ☐ No

CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Safety and Environmental Solutions	**BILL TO**	
Project Manager:	Bob Allen	P.O. #:	
Address:	703 East Clinton, PO Box 1613	Company:	Same
City:	Hobbs	State: NM Zip: 88240	Attn:
Phone #:	575 397-0510	Fax #: 575 393-4388	Address:
Project #:		Project Owner:	City:
Project Name:			State: Zip:
Project Location:			Phone #:
Sampler Name:			Fax #:

ANALYSIS REQUEST

Ch Grinds

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	
H602638-11	AH-3 2'	G	1			X					X		11/23	1245	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Susi Jenny	Date: 11/28/16	Received By: Jodi Henson	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 0800		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: #75 4.3°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

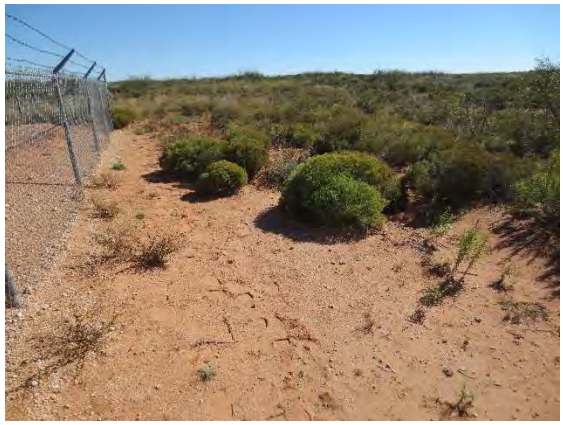
CHECKED BY: (Initials)

Appendix D
Site Photographs

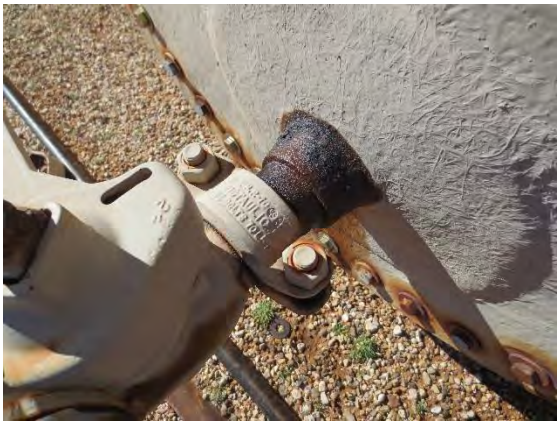
Bilbrey 27A Federal Tank Battery

Photo Page

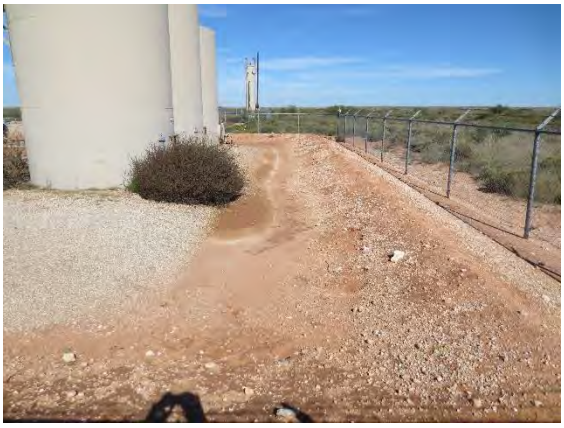
North end of the battery



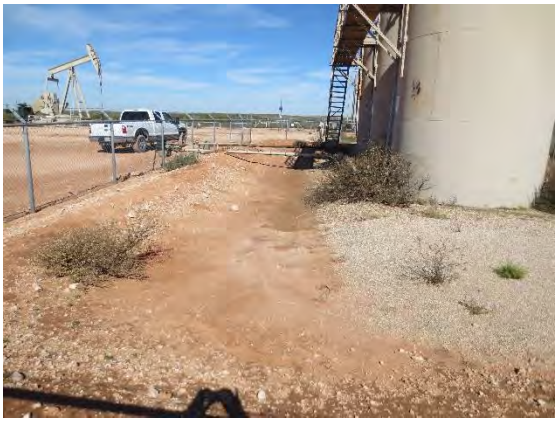
Area South of the battery



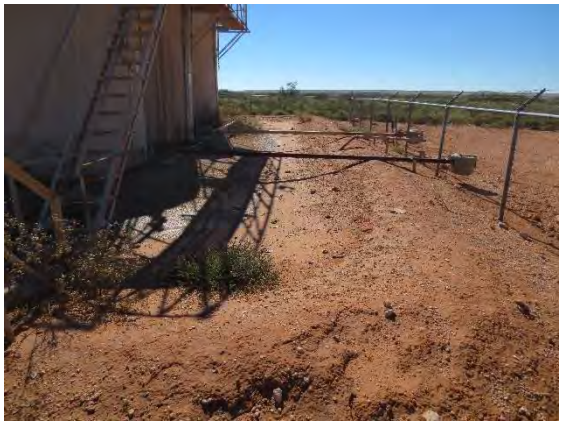
Fitting on the tank



East side of the battery



West side of the battery



West side of the battery