

OXY USA, Inc.
South Hobbs Grayburg San Andres Unit
136
Delineation Report and Work Plan

Section 4, T19S, R38E
Lea County, New Mexico

December 4, 2014



Prepared for:

OXY USA, Inc.
1017 W Stanolind Road
Hobbs, New Mexico 88240

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
Austin Tramell	OXY USA, INC.	575-499-4919	Austin_Tramell@oxy.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by OXY USA, INC to perform site assessment of a release area at the South Hobbs Grayburg San Andres Unit 136 located in Section 4 of Township 19 South, Range 38 East, Lea County, New Mexico.

According to the C-141 the cause of release was internal and external corrosion

III. Surface and Ground Water

The nearest groundwater of record is approximately 0.4 miles of the site. The New Mexico Office of State Engineer record is in Section 4 Range 38 East and Township 19 South. The reported depth was 33 feet below ground surface (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, ethylbenzene, and total xylenes (BTEX), and 5,000 ppm Total Petroleum Hydrocarbons (TPH).

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	X
	50 feet to 99 feet	10 points	
	>100 feet	0 points	
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)			20

V. Work Performed

On 2014, Safety & Environmental Solutions, Inc. was onsite to determine vertical extent of contamination. Sample BH 1 was taken at the a depth of 1' ft. Samples BH 2 were taken at a depth of 2' ft. and 3' ft.. Sample BH 3 was taken at a depth of 2' ft. All samples were properly packaged, preserved and transported to the Laboratory, Hobbs New Mexico and analyzed for Benzene, Toluene, Ethylbenzene, Xylenes, Total BTEX

and Chloride (Cl⁻) (Method SM4500Cl-B). The results of the analysis are presented in the table below:

Sample Date 2/13/2014	Sample ID	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX
Depth	Method					
BH 1 at 2'	BTEX 8021B	<0.050	<0.050	<0.050	<0.150	<0.300
BH 2 at 2'	BTEX 8021B	<0.050	<0.050	<0.061	<0.150	<0.300
BH 3 at 2'	BTEX 8021B	<0.050	<0.050	<0.050	<0.150	<0.300
BH 2 at 3'	BTEX 8021B	<0.050	<0.050	<0.050	<0.150	<0.300

Sample Date 05/03/2014	Sample ID	Chloride (Cl)	Sample ID	GRO (C₆-C₁₀) (mg/kg)	DRO (>C₁₀-C₂₈) (mg/kg)
Depth	Method		Method		
BH 1 at 2'	SM4500Cl-B	64.0	TPH 8015M	<10.0	<10.0
BH 2 at 2'	SM4500Cl-B	<16.0	TPH 8015M	<50.0	<50.0
BH 3 at 2'	SM4500Cl-B	80.0	TPH 8015M	<10.0	174
BH 2 at 3'	SM4500Cl-B	<16.0	TPH 8015M	<50.0	<50.0

VI. Action Plan

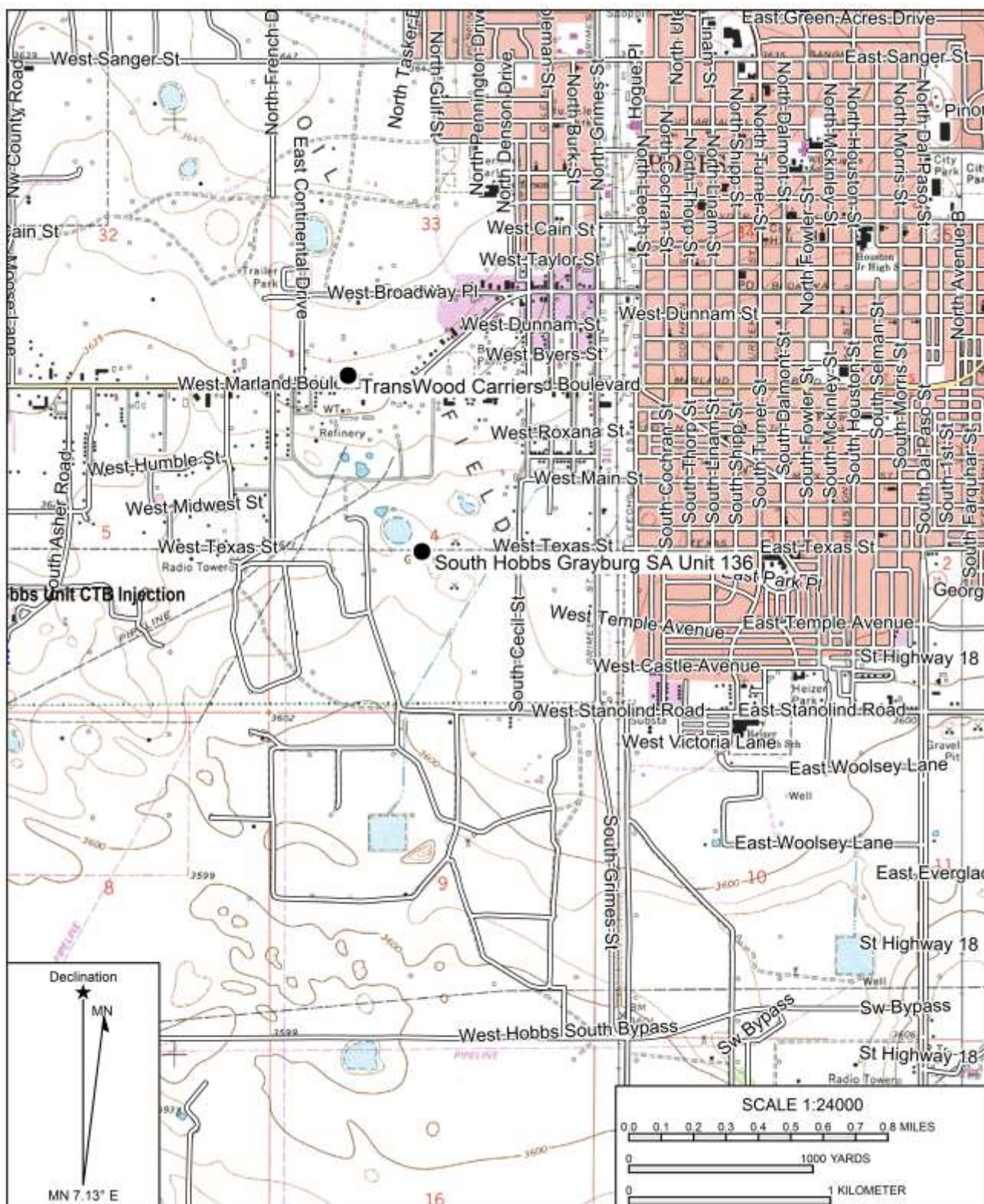
Due to the results listed above the following action plan is proposed:

1. Excavate 18" remove all contaminated soil transport to an approved NMOCD facility for disposal.
2. The excavated area will be backfilled with native soil and returned to natural grade.
3. No further action is necessary.

VII. Figures & Appendices

Figure 1 – Vicinity Map
Figure 2 – Site Plan
Figure 3 – NMOCD Trend Map
Appendix A – Analytical Results
Appendix B – C-141

Figure 1
Vicinity Map



Name: HOBBS WEST,
Date: 12/01/14
Scale: 1 inch = 2,000 ft.

Location: 032.6867000° N, 103.1500801° W
Caption: South Hobbs Grayburg San Andres Unit 136

Figure 2
Site Plan



South Hobbs Grayburg San Anders Unit 136

Appendix A

Analytical Results



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

November 21, 2014

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: GRAYBURG UNIT #136

Enclosed are the results of analyses for samples received by the laboratory on 11/18/14 14:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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/ga/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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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: 11/18/2014
Reported: 11/21/2014
Project Name: GRAYBURG UNIT #136
Project Number: OXY-14-024
Project Location: HOBBS, NM

Sampling Date: 11/18/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: BH-1 2' BGS (H403548-01)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2014	ND	1.96	98.1	2.00	6.95		
Toluene*	<0.050	0.050	11/21/2014	ND	1.90	95.2	2.00	7.27		
Ethylbenzene*	<0.050	0.050	11/21/2014	ND	1.88	93.8	2.00	6.56		
Total Xylenes*	<0.150	0.150	11/21/2014	ND	5.65	94.2	6.00	6.68		
Total BTEX	<0.300	0.300	11/21/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/20/2014	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/19/2014	ND	199	99.5	200	0.490	
DRO >C10-C28	<10.0	10.0	11/19/2014	ND	205	103	200	0.499	

Surrogate: 1-Chlorooctane 125 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/18/2014
Reported: 11/21/2014
Project Name: GRAYBURG UNIT #136
Project Number: OXY-14-024
Project Location: HOBBS, NM

Sampling Date: 11/18/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: BH-2 2' BGS (H403548-02)

BTX 80218		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/21/2014	ND	1.96	98.1	2.00	6.95	
Toluene*	<0.050	0.050	11/21/2014	ND	1.90	95.2	2.00	7.27	
Ethylbenzene*	0.061	0.050	11/21/2014	ND	1.88	93.8	2.00	6.56	
Total Xylenes*	<0.150	0.150	11/21/2014	ND	5.65	94.2	6.00	6.68	
Total BTX	<0.300	0.300	11/21/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/20/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	11/19/2014	ND	191	95.6	200	1.99	
DRO >C10-C28	<50.0	50.0	11/19/2014	ND	194	96.8	200	0.864	

Surrogate: 1-Chlorooctane 120 % 47.2-157

Surrogate: 1-Chlorooctadecane 135 % 52.1-176

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Celestine D. Keene

Celestine D. Keene, Lab Director/Quality Manager

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Received: 11/18/2014
Reported: 11/21/2014
Project Name: GRAYBURG UNIT #136
Project Number: OXY-14-024
Project Location: HOBBS, NM

Sampling Date: 11/18/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: BH-3 2' BGS (H403548-03)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2014	ND	1.96	98.1	2.00	6.95		
Toluene*	<0.050	0.050	11/21/2014	ND	1.90	95.2	2.00	7.27		
Ethylbenzene*	<0.050	0.050	11/21/2014	ND	1.88	93.8	2.00	6.56		
Total Xylenes*	<0.150	0.150	11/21/2014	ND	5.65	94.2	6.00	6.68		
Total BTX	<0.300	0.300	11/21/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/20/2014	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/19/2014	ND	191	95.6	200	1.99	
DRO >C10-C28	174	10.0	11/19/2014	ND	194	96.8	200	0.864	

Surrogate: 1-Chlorooctane 123 % 47.2-157

Surrogate: 1-Chlorooctadecane 144 % 52.1-176

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Coley D. Keene

Coley D. Keene, Lab Director/Quality Manager

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Received: 11/18/2014
Reported: 11/21/2014
Project Name: GRAYBURG UNIT #136
Project Number: OXY-14-024
Project Location: HOBBS, NM

Sampling Date: 11/18/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: BH-2 3' BGS (H403548-04)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/21/2014	ND	1.96	98.1	2.00	6.95	
Toluene*	<0.050	0.050	11/21/2014	ND	1.90	95.2	2.00	7.27	
Ethylbenzene*	<0.050	0.050	11/21/2014	ND	1.88	93.8	2.00	6.56	
Total Xylenes*	<0.150	0.150	11/21/2014	ND	5.65	94.2	6.00	6.68	
Total BTEX	<0.300	0.300	11/21/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/20/2014	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	11/19/2014	ND	191	95.6	200	1.99	
DRO >C10-C28	<50.0	50.0	11/19/2014	ND	194	96.8	200	0.864	

Surrogate: 1-Chlorooctane 114 % 47.2-157

Surrogate: 1-Chlorooctadecane 128 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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

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Celey D. Keene, Lab Director/Quality Manager



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Appendix B

C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: OXY USA		Contact: Tony Aguilar	
Address: 1017 W Stanolind Road		Telephone No.	
Facility Name: South Hobbs Grayburg San Andres Unit 136		Facility Type:	
Surface Owner:	Mineral Owner: OXY	Lease No. 30-025-8339	

LOCATION OF RELEASE

Unit Letter C	Section 4	Township 19S	Range 38E	Feet from the	North/South Line	Feet from the	East/West Line	County
------------------	--------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------

Latitude: 32.689630 Longitude: -103.153430

NATURE OF RELEASE

Type of Release: Oil and Produced water	Volume of Release: 3 BBLS OIL 697 BBLS WATER	Volume Recovered:
Source of Release: Flowline	Date and Hour of Occurrence: 8/21/2014 3:12 PM	Date and Hour of Discovery 8/21/2014
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Tomas Oberding	
By Whom? Tony Aguilar	Date and Hour: 8/21/2014	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Cause of leak: internal and external Corrosion		
Describe Area Affected and Cleanup Action Taken.* Safety & Environmental Solutions, Inc. will delineate spill area and submit appropriate work plan.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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:		OIL CONSERVATION DIVISION
Printed Name: Tony Aguilar		Approved by District Supervisor:
Title: HSE Specialist	Approval Date:	Expiration Date:
E-mail Address: Raymond_Aguilar@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/20/2014	Phone: 575-390-6312	

* Attach Additional Sheets If Necessary

Appendix C

Site Photographs

Taken 8.22.2014



Sign



West looking East



West looking South



Southwest corner



South Side



South looking East



East Side



East looking West



Northeast looking Southwest



Northeast looking West



North Side



North Side



Northwest looking Southeast

Taken 8.27.2014





Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair

Taken 8.28.2014



Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair



Pipeline Repair