# Oxy USA Myers Langlie Mattix Northwest Water Injection Trunk Line Closure Report Unit O, Section 31, Township 23S, Range 37E Lea County, New Mexico

**April 1, 2005** 



IRP, 203.05

Prepared for:

Oxy USA 1017 W. Stanolind Road Hobbs, New Mexico 88240

By:

Safety & Environmental Solutions, Inc. 703 E. Clinton Suite 102 Hobbs, New Mexico 88240 (505) 397-0510

## **TABLE OF CONTENTS**

١.	Company Contacts
II.	Background
III.	Contaminant and Size of Area
IV.	Surface and Ground Water
٧.	Soils
VI.	Work Performed
VII.	
	Request for Closure
VIII.	Figures & Appendices
	Figure 1 - Vicinity Map
	Figure 2 - Site Plan
	Appendix A - C-141
	Appendix B - Oxy Analytical Results
	Appendix C - SESI Analytical Results
	Appendix D - Site Photos

#### I. Company Contacts

Rick Kerby	Oxy USA	505-393-2174	rick_kerby@oxy.com
Bob Allen	SESI	505-397-0510	ballen@sesi-nm.com

#### II. Background

Safety & Environmental Solutions, Inc. (SESI) was contracted by Oxy USA to perform assessment and cleanup services on an area identified as the Myers Langlie Mattix Northwest Water injection Trunk Line. The subject site is an injection line leak area located in Section 31, Township 23S, Range 37E, Lea County, New Mexico.

#### III. Contaminant and Size of Area

The suspected contaminate was produced water from a flat plug on a 4" injection lateral that rusted out. Approximately 20 barrels of fluid was released, approximately one (1) barrel of oil and nineteen (19) barrels of brine. Eighteen barrels of fluid were recovered. The suspected contaminant was classified as an exempt oilfield waste. No evidence of other contaminants was observed.

#### IV. Surface and Ground Water

According to the database provided by the New Mexico State Engineer's Office the nearest groundwater of record is in Section 32 of the same range and township. The depth of water in the well was 106 feet on June 23, 1996.

#### V. Soils

The soils in the area are predominantly sand and sandy loam.

#### VI. Work Performed

The cleanup level reached by the application of the "Guidelines for Remediation of Leaks, Spill and Releases" New Mexico Oil Conservation Division – August 13, 1993 to this site is 5000 ppm Total Petroleum Hydrocarbon (TPH). Application of the New Mexico Oil Conservation Division's ranking criteria for contaminated soils at this site is presented below.

Total Score:	0 points
Distance to Surface Water/Waterways:	0 points
Distance to Well Head or Water Source:	0 points
Depth to Ground Water:	0 points

One June 16, 2004 Oxy USA excavated approximately 216 yards of hydrocarbon stained soils. The contaminated soil was transported to Sundance Services for disposal. After excavation Oxy retrieved six (6) samples inside the spill area, four (4) samples outside the spill area and one (1) composite sample. All samples were sent under Chain of Custody to Cardinal Laboratories of Hobbs, New Mexico. All samples were analyzed for Chlorides (Cl<sup>-</sup>) (EPA Method 4500-Cl<sup>-</sup>B), and TPH (EPA Method 8015). The results of the analysis are as follows:

Date	Sample ID	CI.	GRO	DRO
7/19/04	Α	32	<10.0	<10.0
7/19/04	В	48	<10.0	<10.0
7/19/04	С	16	<10.0	<10.0
7/19/04	D	16	<10.0	<10.0
7/19/04	Composite	1120	<10.0	113
7/19/04	1 @ 4½'	1420	<10.0	53.3
7/19/04	2 @ 3'	1056	<10.0	321
7/19/04	3 @ 4½'	912	<10.0	25.0
7/19/04	4 @ 2'	1870	<10.0	<10.0
7/19/04	5 @ 1'	736	<10.0	12.7
7/19/04	6 @ 2'	464	<10.0	1600

Approximately 216 yards of clean soil was purchased from the landowner and used to backfill the excavation.

On February 8, 2005 SESI drilled five (5) boreholes to a depth of 3'. Grab samples were retrieved at the 3' depth. All samples were sent under Chain of Custody to Cardinal Laboratories. The samples were analyzed for Chlorides (EPA Method 4500-Cl<sup>-</sup>B), TPH (EPA Method 418) and Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX) (EPA Method 8260). The results of the analysis are as follows:

Date	Sample ID	CI <sup>-</sup>	ТРН	Benzene	Toluene	Ethyl Benzene	Total Xylenes
2/8/05	BH #1 3'	800	<10	< 0.005	<0.005	<0.005	<0.015
2/8/05	BH #2 3'	480	1140	<0.005	<0.005	<0.005	0.094
2/8/05	BH #3 3'	960	<10	<0.005	< 0.005	<0.005	<0.015
2/8/05	BH #4 3'	1280	<10	<0.005	<0.005	<0.005	<0.015
2/8/05	BH #5 3'	976	<10	< 0.005	<0.005	<0.005	<0.015

### VII. Request for Closure

There was a slight elevation of the TPH level in Borehole #2, which is in the immediate vicinity of the leak site. The Chloride levels are all under 1,000 ppm at the 3' depth with the exception of Borehole #4, which is 1280 ppm.

Due to the proximity of the groundwater SESI requests no further action be required at this site.

## VIII. Figures & Appendices

Figure 1 - Vicinity Map Figure 2 - Site Plan

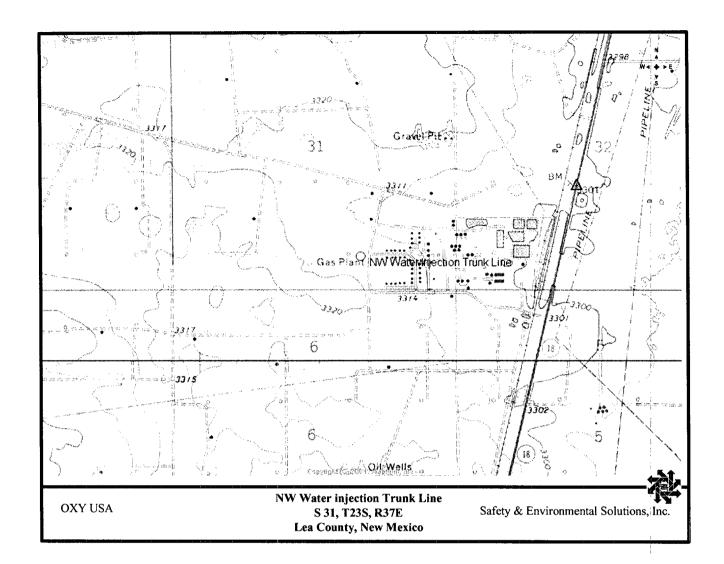
Appendix A – C-141

Appendix B - Oxy Analytical Results

Appendix C - SESI Analytical Results

Appendix D - Site Photos

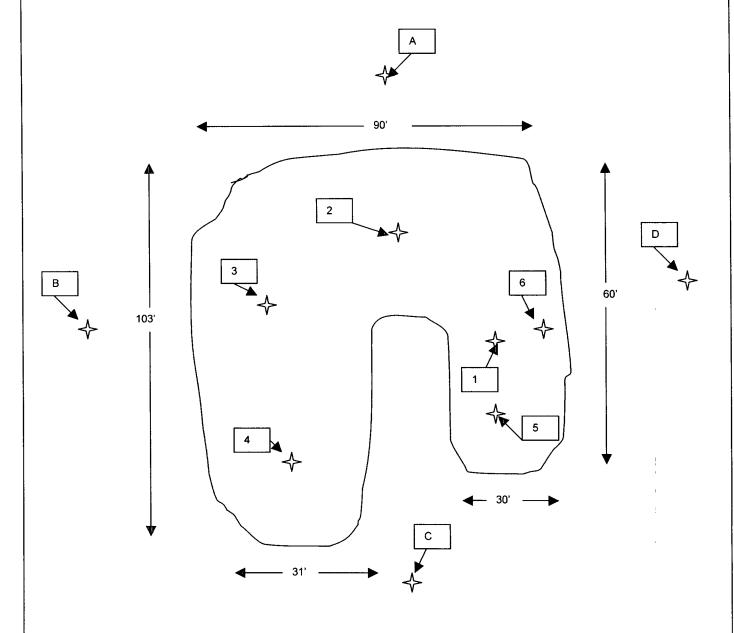
## Figure 1 Vicinity Map



## Figure 2 Site Plan

## Oxy Samples

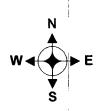




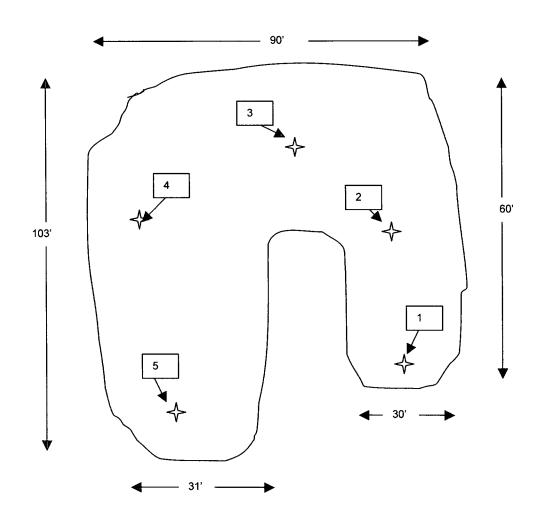
Not to Scale

Oxy USA Site Plan NW Water injection Trunk Line S 31, T23S, R37E Lea County, New Mexico

Safety & Environmental Solutions, Inc.



## **SESI Samples**



Not to Scale

Oxy USA Site Plan NW Water injection Trunk Line S 31, T23S, R37E Lea County, New Mexico



## Appendix A C-141

# Appendix B Oxy Analytical Results



PHONE (925) 673-7001 . 2111 BEECHWOOD . ABILENE, TX 79603

PHONE (805) 393-2326 + 101 E. MARLAND + HOBES, NM 88240

ANALYTICAL RESULTS FOR OXY USA ATTN: RICK KERBY 1017 W. STANOLIND RD. HOBBS, NM 88240 FAX TO: (505) 397-8205

Receiving Date: 07/16/04 Reporting Date: 07/20/04

Project Number: NOT GIVEN

Project Name: MLMU NW WTR INJ.

Project Location: MYERS LANGLIE MATTIX

Sampling Date: 07/18/04

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC Analyzed By: BC/HM

	GRO	DRO	
	(Ce-C <sub>30</sub> )	(>C10-C28)	CI+
LAS NUMBER SAMPLE ID	(mg/Kg)	(mg/Kg)	(mg/Kg)

ANALYSIS C	ATE	07/19/04	07/19/04	07/19/04
H8921-1	A	<10.0	<10.0	32
H8921-2	<b>e</b>	<10.0	<10.0	48
H8921-3	C	<10.0	<10.0	16
H8921-4	D	<10.0	<10.0	16
H8921-5	COMPOSITE	<10.0	113	1120
H8921-6	1	<10.0	53.3	1420
H8921-7	2	<10.6	321	1056
H8921-8	3	<10.0	25.0	912
H <b>89</b> 21-9	4	<10.0	<10.0	1870
H8921-10	5	<10.0	12.7	736
H6921-11 E		<10.0	1600	484
Quality Cant	roi	743	730	990
True Value (	oc .	800	800	1000
% Recovery		92.9	91.3	89.C
Relative Per	cent Difference	2.5	T 6	1.0

METHODS: TPH GRO & DRO: EPA SW-848 8015 M; CI: Std. Methods 4500-CIB \*Analyses performed on 1:4 w/v aqueous extracts.

H8921T.XLS

PLEASE NOTE: Libertry and paragrae. Cardinal's dabitry and client's exclusive removed for any sight, indefing, whether besed in consect or but, usual by limited to the amount owth price and any other based and unless medical in writing and received by Cardinal version strip; (all) days when competition of the applicable services in one owns shall be deemed white during and received by Cardinal version strip; (all) days when competition of the applicable services in one owns shall be deemed and the strip strip and received by the own of shall be applicable. Indeed, the shallow, but one of the property indeed in the participation of the shallow but one successors string out or or related to the participation of the riches and the shallow but one of the shallow but one of the shallow but one of the shall be applicable. The shall be shall be shall be shall be shall be shallowed by the shall be shallowed by the shall be s

# Appendix C SESI Analytical Results



PHONE (325) 673-7001 - 2111 BEECHWOOD - ABILENE, TX 79803

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC. ATTN: BOB ALLEN 703 E. CLINTON, #102 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 02/08/05 Reporting Date: 02/09/05

Project Number: OXY-05-004
Project Name: NW WATER INJECTION TRUNK LINE

Project Location: NOT GIVEN

Sample Type: SQIL

Sample Condition: COOL & INTACT

Sample Received By: BC Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/Kg)	CI* (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DAT	r <b>e</b> s y est a la l	02/08/05	02/09/05	02/09/05	02/09/05	02/09/05	02/09/05
H9534-1	BH #1 3'	<10	800	<0.005	<0.005	<0.005	<0.015
149534-2	BH #2 3'	1140	480	<0.005	<0.005	<0.005	0.094
H9534-3	BH #3 3'	<10	960	<0.005	< 0.005	<0.005	< 0.015
H9534-4	BH #4 3'	<10	1280	<0.005	<0.005	<0.005	< 0.015
H9534-5	BH #53	₹10	976	<0.005	<0.005	<0.005	< 0.015
					· · · · · · · · · · · · · · · · · · ·		
	***************************************		1				
Quality Control		253	960	0.097	0.097	0.095	0.288
True Value QC	**************************************	240	1000	0.100	0.100	0.100	0.300
% Recovery	The second secon	105	96.0	96.8	97.2	95.4	96.0
Relative Percen	t Difference	7.6	3.0	3.3	2.9	4.8	4,2

METHODS:

TRPHC-EPA 600/4-79-020 418.1;CI-Std. Methods 4500-CFB; BTEX-EPA SW-846 8260 \*Analyses performed on 1:4 w:v aqueous extracts. Matrix interference (color) observed.

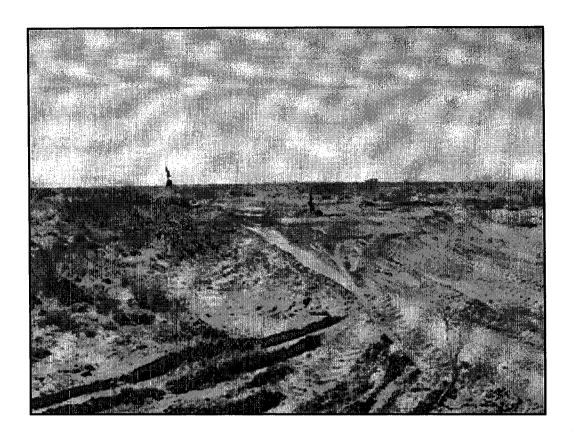
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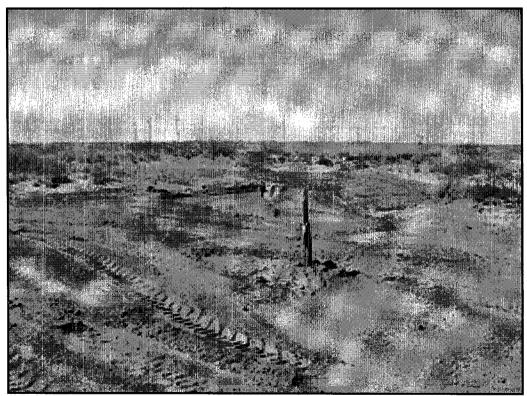
Data

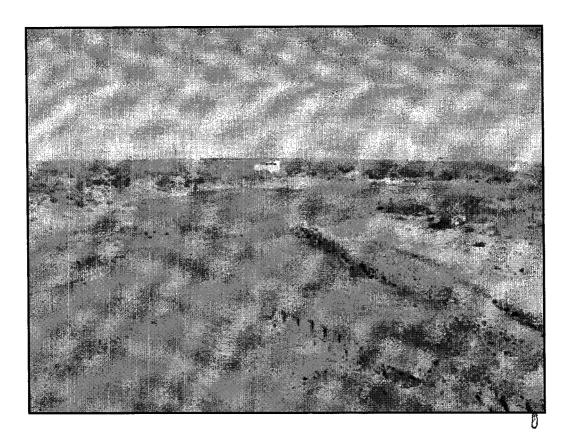
PLEASE NOTE: Liability and Damages. Cardinal's sobility and client's exclusive remedy for any claim missing, whether based in contract or tant, shall be limited to the amount paid by client for analysis.

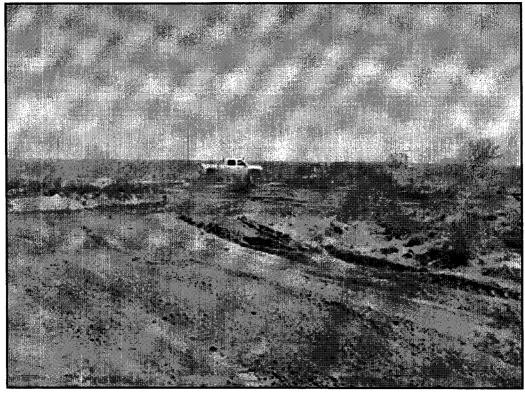
All diging, golysten these for negligence and any other cause whatsoever shall be deemed visived unless made in writing and received by Cardinal within thirty (30) days offer complation of the applicability service. It no event that Cardinal be liable for incidental or consequential durages, including, without finitiation. Incident liability cardinal policy of the cardinal policy of the performance of services instrument by Cardinal, regardings of whether such data is based upon any of the above-stated reasons or scherwise.

## Appendix D Site Photos











PHONE (325) 673-7001 + 2111 BEECHWOOD + ABILENE, TX 79803

PHONE (505) 393-2326 + 101 E. MARIAND + HOBBS, NM 88240

ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC. ATTN: BOB ALLEN 703 E. CLINTON, #102 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 02/08/05 Reporting Date: 02/09/05 Project Number: OXY-05-004

Project Name: NW WATER INJECTION TRUNK LINE

Project Location: NOT GIVEN

Sampling Date: 02/08/05 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/Kg)	Ci* (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DAT	E:	02/08/05	02/09/05	02/09/05	02/09/05	02/09/05	02/09/05
H9534-1	BH #1 3'	<10	800	<0.005	<0.005	<0:005	<0.015
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H9534-5	BH #5 3'	<10	976	<0.005	<0.005	<0.005	<0.015
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Quality Control	An area area or to the second discountry of th	253	960	0.097	0.097	0.095	0.288
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Burgess J'A Cooke Ph. D

Date

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

## Release Notification and Corrective Action

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Attach Additional Sheets If Necessary