

**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** 





**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

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### 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.

| Depth to Ground Water:                 | 0 points |
|--|----------|
| Distance to Well Head or Water Source: | 0 points |
| Distance to Surface Water/Waterways:   | 0 points |
| Total Score:                           | 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 (CI<sup>°</sup>) (EPA Method 4500-CI<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 | A         | 32   | <10.0 | <10.0 |
| 7/19/04 | B         | 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 @ 41⁄2' | 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-CI<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   | ТРН  | Benzene | Toluene | Ethyl<br>Benzene | Total<br>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

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Figure 2 Site Plan





# Appendix A C-141

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Hrazos 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                   | X Initial Report | Final Report |
|---|----------------------------|------------------|--------------|
| Name of Company OXY USA WTP LP                | Contact Rick Kerby         |                  |              |
| Address 1017 W. Stanolind Rd. Hobbs, NM 88240 | Telephone No. (O) 393-21   | 74 C) 631-4972   |              |
| Facility Name Myers Langlic Mattix            | Facility Type Water Inject | tion Trunk Line  |              |
| Curfue Ourse Down Walls Banch                 | -10                        |                  |              |
| Surface Owner Deep wens realien winter        | al Owlici                  | LEISC NO.        | 1            |

Surface Owner Deep Wells Ranch

Mineral Owner

#### LOCATION OF RELEASE

| Unit Letter | Section 31 | Township<br>T24S | Range<br>R37E | Feet from the<br>NW/4 | North/South Line | Feet from the<br>SE/4 | East/West Linc | County |
|-------------|------------|------------------|---------------|-----------------------|------------------|-----------------------|----------------|--------|
|             |            |                  | I             |                       |                  |                       |                |        |

Latitude\_ Longitude

NATURE OF RELEASE

| Type of Release Produced Water  | Volume of Release 20 bbl                  | Volume Re              | covered 18                             |
|---|---|------------------------|--|
| Source of Release Hole in Injection Line  | Date and Hour of Occurrence 6-<br>7-04    | Date and H<br>09:30 AM | lour of Discovery 6-7-04               |
| Was Immediate Notice Given?   | If YES, To Whom?                          | +                      |  |
| Ves XL No Not   |   |                        |  |
|   |   |                        |  |
| By whom?  | Date and Hour                             |                        | ······································ |
| Yes X No  | II TES, volume impacting the wa           | lercourse.             |  |
| If a Watercourse was Impacted, Describe Fully.*   |   |                        |  |
| · · · · · · · · · · · · · · · · · · ·   |   |                        |  |
|   |   |                        |  |
|   |   |                        |  |
| ·   |   |                        |  |
| Describe Cause of Problem and Remedial Action Taken.*   |   |                        |  |
| Hole in injection line leaked produced water into sondy pasture. Leak v   | vas stopped, free water picked up and a   | rea fenced in.         |  |
|   |   |                        |  |
|   |   |                        |  |
| Describe Area Affected and Cleanup Action Taken *   | · · · · · · · · · · · · · · · · · · ·     |                        | ······································ |
| U shaped area in pasture app 110' x 30' in sand. Water was picked up a  | and soil will be allowed to dry. NMOC     | D will be noti         | fied and cleanup plan                  |
| submitted before any remedial work done.  | ;;;;;;                                    |                        |  |
| *   |   |                        |  |
|   |   |                        |  |
|   |   |                        |  |
| I hereby certify that the information given above is true and complete to   | the best of my knowledge and underst      | and that pursu         | ant to NMOCD rules and                 |
| regulations all operators are required to report and/of the certain release   | the NDAOCID medical on NEiscul Demonth    | cuons for reici        | ises which may endanger                |
| public licenti of the environment. The acceptance of a C-141 report by chould their ensentions have fulled to adopte the investigate and period | the NMOOLD marked as "Find Report         | does not rene          | write a permor of habiny               |
| or the environment. In addition NMOCD accentance of a C-141 moort   | does not relieve the aperator of person   | sibility for co        | minace with any other                  |
| federal state or local laws and/or regulations.   | t does not reneve the operation of respon | Stoliny for co         | inplantee with any cases               |
|   | OII CONSER                                | VATION                 | NIVISION                               |
|   |   |                        |  |
| Signature:  |   |                        |  |
|   | Approved by District Supervisor           |                        |  |
| Printed Name: Rick Kerby  |   |                        |  |
|   |   |                        |  |
| Title: HES Tech   | Approval Date:                            | Expiration I           | ate:                                   |
| 17 mar 1 Addaman with to have been some   | Conditions of America                     |                        |  |
| E-mail Address: nck keröylaloxy.com   | Concluons of Approval:                    |                        | Attached                               |
| Date: 6-7-04 Phone: 631-4972  |   |                        |  |
| Lar. 0-1-0-1 1 m/m. 031-4772  | 1   |                        | L                                      |

\* Attach Additional Sheets If Necessary

Appendix B Oxy Analytical Results



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PHONE (505) 383-2326 + 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: 07/26/04 Project Number: NOT GIVEN Project Name: MLMU NW WTR INJ. Project Location: MYERS LANGLIE MATTIX Sampling Date: 07/16/04 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: BC/HM

| LAB NUMBE           | R SAMPLE ID     | GRO<br>(Ce-C10)<br>(mg/Kg) | DRO<br>(>C <sub>10</sub> -C <sub>29</sub> )<br>(mg/Kg) | Cl*<br>(mg/Kg) |     |
|---------------------|-----------------|----------------------------|--|----------------|-----|
| ANALYSIS C          | DATE            | 07/19/04                   | 07/19/04   | 07/19/04       |     |
| H8921-1             | A               | <10.0                      | <10.0  | 32             | -   |
| H8921-2             | 8               | <10.0                      | <10.0  | 48             |     |
| H8921-3             | C               | <10.0                      | <10.0  | 16             | -   |
| H8921-4             | D               | <10.0                      | <10.0  | 16             | 7   |
| H8921-5             | COMPOSITE       | <10.0                      | 113  | 1120           | í   |
| H8921-6             | 1               | <10.0                      | 53.3   | 1420           | 10  |
| H8921-7             | 2               | <10.0                      | 321  | 1056           |     |
| H8921-8             | 3               | <10,0                      | 25.0   | 912            |     |
| H8921-9             | 4               | <10.0                      | <10.0  | 1870           | -4  |
| H8921-10            | 5               | <10.0                      | 12.7   | 738            | "   |
| H6921-11            | e               | <10.0                      | 1600   | 464            | -19 |
| Quality Cont        | roi             | 743                        | 730  | \$90           | -1  |
| True Value (        | 20              | 800                        | 800  | 1000           | 1   |
| % Recovery          |                 | 92.9                       | 91.3   | 99.0           | 1   |
| <b>Relative</b> Per | cent Difference | 2.5                        | 6  | 1.0            | 7   |

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CI'B \*Analyses performed on 1:4 w;v aqueous extracts.

ACoohi

H8921T.XLS

PLEASE NOTE: Lisbitity and Damages. Cardinal's liability and client's exclusive remody for any claim arising, whether based in contract or tort, whall be britted to the amount peid by client jor analyses. Ar dature, including those for negligence and any other based withstower shall be desired weaked unlike and received by Cardinal within winty (30) days after companian of the applicative aardos, in no even what Senders to state to incidental or consequential damages, housing, without by the damage be and to a state to a state to incidental or consequential damages, housing, in or even what Senders and on a state to incidental or consequential damages, housing, in the state to a state to a state to indicate and many or the showers and or state to a state to incidental received by Cardinal, regardless of whether such claims to and or any of the showers stated receive or otherwise.

# Appendix C SESI Analytical Results

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ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC. ATTN: BOB ALLEN

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

PHONE (325) 673-7001 . 2111 BEECHWOOD . ABILENE, TX 79603

PHONE (505) 393-2328 ... 101 E. MARLAND . HOBBS, NM 88240-

|                       | SAMPLEID                               | ТРН      | <b>CI</b> * | BENZENE  | TOLUENE  | ETHYL<br>BENZENE | TOTAL<br>XYLENES |
|-----------------------|--|----------|-------------|----------|----------|------------------|------------------|
| :                     |  | (mg/Kg)  | (mg/Kg)     | (mg/Kg)  | (mg/Kg)  | (mg/Kg)          | (mg/Kg)          |
| ANALYSIS D            | ATE:                                   | 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           |
| H9534-2               | 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 #5 3                                | <10      | 976         | <0.005   | <0.005   | <0.005           | ⊲0.015           |
| · · ·                 | ······································ | -        |             |          |          |                  |                  |
|                       |  |          |             |          |          |                  |                  |
| Quality Contro        | bl                                     | 253      |             | 0.097    | 0.097    | 0.095            | 0.288            |
| True Value Q0         | 2                                      | 240      | 1000        | 0.100    | 0.100    | 0.100            | 0.300            |
| % Recovery            |  | 105      | 96.0        | 96.8     | 97:2     | 95.4             | 96.0             |
| <b>Relative Perce</b> | ent Difference                         | 7.6      | 3.0         | 3.3      | 2.9      | 4.8              | 4.2              |

703 E. CLINTON, #102 HOBBS, NM 88240

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.

PLEASE NOTE:: Liability and Damages. Cardinal's tability and client's exclusive remedy for any claim unising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, inclusing those for inadigence and any other cause whatsoever shall be deered waived unless made in witing and received by Cardinal within thirty (30) days after completion of the applicable service. If if of whit shall Cardinal be liable for incidental or consequential damages, including, without fimitation, business interruptions, loss of use, or loss of prolifs incidental or otherwise. attiliates or successors arising cut of or related to the performance of services bereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Appendix D Site Photos

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