

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**

Initial Report  Final Report

Name of Company OXY USA	Contact Kelton Beard	
Address 1502 W. Commerce	Telephone No. (O) 575-628-4121 C) 575-390-1903	
Facility Name Jones Canyon 4-6	Facility Type Well with Battery	
Surface Owner BLM	Mineral Owner BLM	Lease No. 3001530948

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	4	22S	24E					Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Produced Water	Volume of Release 20	Volume Recovered 4
Source of Release Thrust Chamber on SWD pump	Date and Hour of Occurrence	Date and Hour of Discovery 7-19-09
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher (left message)	
By Whom? Rick Kerby (HES-Oxy)	Date and Hour See above	
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.\*

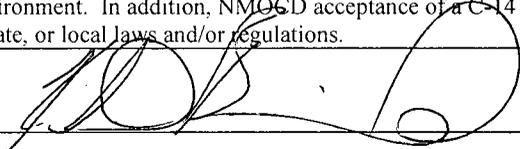
Describe Cause of Problem and Remedial Action Taken.\*

The thrust chamber on the SWD pump was leaking. Vac-truck was called to pick up remaining fluid

Describe Area Affected and Cleanup Action Taken.\*

Area affected was on location. Delineation occurred and all levels were below RAL's except TP6. At TP6, 1 foot of material was excavated and hauled to an approved disposal (Lea Land). Clean like material was brought in for backfill. All other material was left in place.

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: 	<b><u>OIL CONSERVATION DIVISION</u></b>	
Printed Name: Kelton Beard	Approved by District Supervisor:	
Title: HES Specialist	Approval Date:	Expiration Date:
E-mail Address: kelton_beard@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4-6-10		

\* Attach Additional Sheets If Necessary

**Elke Environmental, Inc.**

P.O. Box 14167 Odessa, TX 79768

**Field Analytical Report Form**

**Client** Oxy USA **Analyst** Bobby Steadham

**Site** Jones Canyon 4 Federal #6

Sample ID	Date	Depth	418.1 TPH / PPM	CI / PPM	PID / PPM	GPS
TP1	3/11/10	3"	120	172	12.6	32°25.324' N 104°30.113' W
TP1	3/11/10	1'		178	11.7	32°25.324' N 104°30.113' W
TP1	3/11/10	2'		209	9.6	32°25.324' N 104°30.113' W
TP1	3/11/10	3'	46	173	4.2	32°25.324' N 104°30.113' W
TP2	3/11/10	3"	238	88	32.8	32°25.327' N 104°30.119' W
TP2	3/11/10	1'		143	11.7	32°25.327' N 104°30.119' W
TP2	3/11/10	2'		119	9.7	32°25.327' N 104°30.119' W
TP2	3/11/10	3'	111	84	2.6	32°25.327' N 104°30.119' W
TP3	3/11/10	3"	306	200	21.4	32°25.329' N 104°30.119' W
TP3	3/11/10	1'		239	4.5	32°25.329' N 104°30.119' W
TP3	3/11/10	2'		116	2.1	32°25.329' N 104°30.119' W
TP3	3/11/10	3'	71	88	2.9	32°25.329' N 104°30.119' W
TP4	3/11/10	3"	16	125	11.9	32°25.326' N 104°30.121' W
TP4	3/11/10	1'		87	5.4	32°25.326' N 104°30.121' W
TP4	3/11/10	2'		144	3.6	32°25.326' N 104°30.121' W
TP4	3/11/10	3'	10	115	1.0	32°25.326' N 104°30.121' W

**Analyst Notes** \_\_\_\_\_

# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Oxy USA Analyst Bobby Steadham

Site Jones Canyon 4 Federal #6

Sample ID	Date	Depth	418.1 TPH / PPM	CI / PPM	PID / PPM	GPS
TP5	3/12/10	3"	1,269	279	45.9	32°25.323' N 104°30.123' W
TP5	3/12/10	1'		213	21.7	32°25.323' N 104°30.123' W
TP5	3/12/10	2'		269	3.7	32°25.323' N 104°30.123' W
TP5	3/12/10	3'	45	251	2.3	32°25.323' N 104°30.123' W
TP6	3/12/10	3"	11,921	106	74.3	32°25.325' N 104°30.125' W
TP6	3/12/10	1'	1,128	90	29.6	32°25.325' N 104°30.125' W
TP6	3/12/10	2'		117	12.0	32°25.325' N 104°30.125' W
TP6	3/12/10	3'	400	84	2.4	32°25.325' N 104°30.125' W
North Wall	3/12/10	1'	23	119	2.3	32°25.329' N 104°30.114' W
East Wall	3/12/10	1'	54	89	1.6	32°25.317' N 104°30.113' W
South Wall	3/12/10	1'	9	191	2.9	32°25.323' N 104°30.127' W
West Wall	3/12/10	1'	12	141	2.1	32°25.329' N 104°30.120' W

Analyst Notes \_\_\_\_\_

# Analytical Report 365593

for

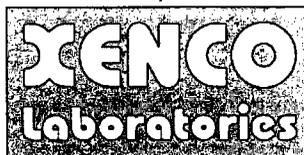
**Elke Environmental, Inc.**

**Project Manager: Logan Anderson**

**Oxy USA**

**Jones Canyon 4 Fed # 6**

**24-MAR-10**



**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



24-MAR-10

Project Manager: **Logan Anderson**  
**Elke Environmental, Inc.**  
P.O. Box 14167  
Odessa, TX 79768

Reference: XENCO Report No: **365593**  
**Oxy USA**  
Project Address: Jones Canyon 4 Fed # 6

**Logan Anderson:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 365593. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 365593 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 365593**



**Elke Environmental, Inc., Odessa, TX**  
Oxy USA

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
TP2 @ 3'	S	Mar-11-10 13:00	3 ft	365593-001
TP3 @ 3'	S	Mar-11-10 14:00	3 ft	365593-002
TP4 @ 3'	S	Mar-11-10 16:30	3 ft	365593-003
TP5 @ 3'	S	Mar-12-10 08:00	3 ft	365593-004



## CASE NARRATIVE

*Client Name: Elke Environmental, Inc.*

*Project Name: Oxy USA*

*Project ID: Jones Canyon 4 Fed # 6*  
*Work Order Number: 365593*

*Report Date: 24-MAR-10*  
*Date Received: 03/15/2010*

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**Sample receipt non conformances and Comments:**

None

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**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-798460 Percent Moisture  
None

Batch: LBA-798498 TPH By SW8015 Mod  
None

Batch: LBA-798930 Inorganic Anions by EPA 300  
None

Batch: LBA-798933 Anions by E300  
None



# Certificate of Analysis Summary 365593

Elke Environmental, Inc., Odessa, TX

Project Name: Oxy USA

Project Id: Jones Canyon 4 Fed # 6

Contact: Logan Anderson

Project Location: Jones Canyon 4 Fed # 6

Date Received in Lab: Mon Mar-15-10 08:21 am

Report Date: 24-MAR-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	365593-001	365593-002	365593-003	365593-004		
	<i>Field Id:</i>	TP2 @ 3'	TP3 @ 3'	TP4 @ 3'	TP5 @ 3'		
	<i>Depth:</i>	3 ft	3 ft	3 ft	3 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Mar-11-10 13:00	Mar-11-10 14:00	Mar-11-10 16:30	Mar-12-10 08:00		
<b>Anions by E300</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Mar-18-10 21:28	Mar-18-10 21:28	Mar-18-10 21:28	Mar-19-10 02:47		
	<i>Units/RL:</i>	mg/kg    RL	mg/kg    RL	mg/kg    RL	mg/kg    RL		
Chloride		18.5    9.72	93.8    9.58	19.6    4.98	126    9.87		
<b>Percent Moisture</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Mar-16-10 11:45	Mar-16-10 11:45	Mar-16-10 11:45	Mar-16-10 11:45		
	<i>Units/RL:</i>	%        RL	%        RL	%        RL	%        RL		
Percent Moisture		13.6    1.00	12.3    1.00	15.6    1.00	14.9    1.00		
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-16-10 15:00	Mar-16-10 15:00	Mar-16-10 15:00	Mar-16-10 15:00		
	<i>Analyzed:</i>	Mar-17-10 03:39	Mar-17-10 04:06	Mar-17-10 04:33	Mar-17-10 05:00		
	<i>Units/RL:</i>	mg/kg    RL	mg/kg    RL	mg/kg    RL	mg/kg    RL		
C6-C12 Gasoline Range Hydrocarbons		BRL    17.3	BRL    17.0	BRL    17.7	BRL    17.6		
C12-C28 Diesel Range Hydrocarbons		BRL    17.3	63.5    17.0	BRL    17.7	BRL    17.6		
C28-C35 Oil Range Hydrocarbons		BRL    17.3	BRL    17.0	BRL    17.7	BRL    17.6		
Total TPH		BRL    17.3	63.5    17.0	BRL    17.7	BRL    17.6		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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 Brent Barron, II  
 Odessa Laboratory Manager



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

\* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



# Form 2 - Surrogate Recoveries

Project Name: Oxy USA

Work Orders : 365593,

Project ID: Jones Canyon 4 Fed # 6

Lab Batch #: 798498

Sample: 558311-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 03/17/10 02:18	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		108	99.7	108	70-135	
o-Terphenyl		46.6	49.9	93	70-135	

Lab Batch #: 798498

Sample: 558311-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 03/17/10 02:45	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		113	99.8	113	70-135	
o-Terphenyl		44.1	49.9	88	70-135	

Lab Batch #: 798498

Sample: 558311-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 03/17/10 03:12	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		88.6	99.9	89	70-135	
o-Terphenyl		45.0	50.0	90	70-135	

Lab Batch #: 798498

Sample: 365593-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 03/17/10 03:39	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		88.0	99.9	88	70-135	
o-Terphenyl		44.1	50.0	88	70-135	

Lab Batch #: 798498

Sample: 365593-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 03/17/10 04:06	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		92.3	99.6	93	70-135	
o-Terphenyl		45.5	49.8	91	70-135	

\* Surrogate outside of Laboratory QC limits  
 \*\* Surrogates outside limits; data and surrogates confirmed by reanalysis  
 \*\*\* Poor recoveries due to dilution  
 Surrogate Recovery [D] = 100 \* A / B  
 All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Oxy USA

Work Orders : 365593,

Project ID: Jones Canyon 4 Fed # 6

Lab Batch #: 798498

Sample: 365593-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/10 04:33

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.9	99.8	91	70-135	
o-Terphenyl	44.8	49.9	90	70-135	

Lab Batch #: 798498

Sample: 365593-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/10 05:00

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.3	100	88	70-135	
o-Terphenyl	43.9	50.0	88	70-135	

Lab Batch #: 798498

Sample: 365593-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/10 10:01

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.5	113	70-135	
o-Terphenyl	43.5	49.8	87	70-135	

Lab Batch #: 798498

Sample: 365593-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/10 10:29

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.8	106	70-135	
o-Terphenyl	41.4	49.9	83	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Blank Spike Recovery



Project Name: Oxy USA

Work Order #: 365593

Project ID: Jones Canyon 4 Fed # 6

Lab Batch #: 798930

Sample: 798930-1-BKS

Matrix: Solid

Date Analyzed: 03/18/2010

Date Prepared: 03/18/2010

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

### BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<0.420	11.0	11.6	105	75-125	

Lab Batch #: 798933

Sample: 798933-1-BKS

Matrix: Solid

Date Analyzed: 03/19/2010

Date Prepared: 03/19/2010

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

### BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<0.420	10.0	9.31	93	75-125	

Blank Spike Recovery [D] = 100\*[C]/[B]

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



# BS / BSD Recoveries



**Project Name: Oxy USA**

**Work Order #: 365593**

**Analyst: BEV**

**Date Prepared: 03/16/2010**

**Project ID: Jones Canyon 4 Fed # 6**

**Date Analyzed: 03/17/2010**

**Lab Batch ID: 798498**

**Sample: 558311-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

## BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	<15.0	997	1040	104	998	1120	112	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	997	918	92	998	959	96	4	70-135	35	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS Recoveries



Project Name: Oxy USA

Work Order #: 365593

Project ID: Jones Canyon 4 Fed # 6

Lab Batch #: 798930

Date Prepared: 03/18/2010

Analyst: LATCOR

Date Analyzed: 03/18/2010

Batch #: 1

Matrix: Soil

QC- Sample ID: 365405-008 S

Reporting Units: mg/kg

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	6400	2310	8820	105	75-125	

Lab Batch #: 798933

Analyst: LATCOR

Date Analyzed: 03/19/2010

Date Prepared: 03/19/2010

QC- Sample ID: 365593-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	126	235	336	89	75-125	

Matrix Spike Percent Recovery [D] =  $100 \cdot (C-A) / B$   
 Relative Percent Difference [E] =  $200 \cdot (C-A) / (C+B)$   
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



# Form 3 - MS / MSD Recoveries



Project Name: Oxy USA

Work Order #: 365593

Project ID: Jones Canyon 4 Fed # 6

Lab Batch ID: 798498

QC- Sample ID: 365593-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/17/2010

Date Prepared: 03/16/2010

Analyst: BEV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<17.3	1150	1300	113	1160	1180	102	10	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<17.3	1150	1140	99	1160	1110	96	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable, N = See Narrative, EQL = Estimated Quantitation Limit



# Sample Duplicate Recovery

Project Name: Oxy USA

Work Order #: 365593

Lab Batch #: 798930

Project ID: Jones Canyon 4 Fed # 6

Date Analyzed: 03/18/2010

Date Prepared: 03/18/2010

Analyst: LATCOR

QC- Sample ID: 365405-008 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	6400	6510	2	20	

Lab Batch #: 798933

Date Analyzed: 03/19/2010

Date Prepared: 03/19/2010

Analyst: LATCOR

QC- Sample ID: 365593-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	126	126	0	20	

Lab Batch #: 798460

Date Analyzed: 03/16/2010

Date Prepared: 03/16/2010

Analyst: JLG

QC- Sample ID: 365593-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	13.6	12.6	8	20	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

# Environmental Lab of Texas

A Xenco Laboratories Company

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12800 West I-20 East  
Odessa, Texas 79768

Phone: 432-663-1800  
Fax: 432-663-1713

Project Manager: Logan Anderson

Project Name: Oxy USA

Company Name: Elke Environmental

Project #: \_\_\_\_\_

Company Address: P O Box 14167

Project Loc: Jones Canyon 4 Feb 26

City/State/Zip: Odessa, TX 79768

PO #: \_\_\_\_\_

Telephone No: 432-366-0043

Fax No: 432-366-0884

Report Format:  Standard  TRRP  NPDES

Sampler Signature: [Signature]

e-mail: la\_elkeenv@yahoo.com

Analyze For:

TCLP:		TOTAL:		Matrix	
TPH: 418.1	6015M	8015B		TPH: TX 1005	TX 1006
Cations (Ca, Mg, Na, K)		Anions (Cl, SO4, Alkalinity)		SAR / ESP / CEC	
Metals: As Ag Ba Cd Cr Pb Mg Se		Volatiles		Semivolatiles	
BTEX 8021B/5030 or BTEX 8260		RCI		N.O.R.M.	
RUSH TAT (Pre-Schedule) 24, 48, 72 hrs		Standard TAT			

(lab use only)  
ORDER #: 305593

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers								Matrix								
								Ice	MNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Mn-SD <sub>3</sub>	None	Other (Specify)		DW-Drinking Water SL-Sludge	GW-Groundwater S-Soil/Solid	NP-Non-Potable Specify Other					
01	TP2 @ 3'	3'	3'	3/11/10	1:00 PM																			
02	TP3 @ 3'	3'	3'	3/11/10	2:10 PM																			
03	TP4 @ 3'	3'	3'	3/11/10	4:30 PM																			
04	TP5 @ 3'	3'	3'	3/12/10	8:00 AM																			
05	TP6 @ 3'	3'	3'	3/12/10	8:45 AM																			

Special Instructions:

Relinquished by: <u>[Signature]</u>	Date: <u>3/15/10</u>	Time: <u>8:21</u>	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by: <u>Andrea Jain</u>	Date: <u>3-15-10</u>	Time: <u>8:21</u>

Laboratory Comments:  
 VOCs Free of Headspace?  N  
 Custody seals on container(s)  N  
 Sample Hand Delivered by Sampler/Client Rep. ?  N  
 by Courier? UPS DHL FedEx Lone Star  
 40291455  
 Temperature Upon Receipt: -8.1 °C

## Environmental Lab of Texas

### Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.  
 Date/ Time: 3.15.10 8:21  
 Lab ID #: 365593  
 Initials: AL

#### Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	-8.1 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	iD written on Cont./ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	

#### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event