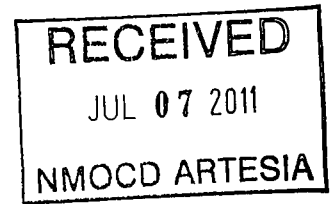




July 7, 2011

Mr. Mike Bratcher
NMOCD District 2
1301 West Grand Avenue
Artesia, NM 88210



Subject: **Soil Assessment and Remediation Work Plan**
Occidental Petroleum Company
Midwest L Federal 5 release
API # 30-015-32364 – 2RP-625

Dear Mr. Bratcher,

Oxy USA has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Midwest L Federal 5 release. The results of our soil assessment and proposed remediation activities consist of the following:

Incident Date

February 7, 2011

Background Information

The Midwest L No. 5 is located approximately seven (7) miles west of Carlsbad, New Mexico. The legal location for the site is Section 34, Township 22 South and Range 26 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.35417 North and -104.28854 West.

This site lies on undulating plains and low hills consisting of wind worked sandy deposits. Drainage courses in this area are normally dry. The local surface and shallow geology consists of the Tansill and Yates formations that include sandstone, siltstone, limestone, dolomite and anhydrite sedimentary deposits. The New Mexico State Engineer web site indicates the nearest ground water data to be in S28-T22S-R26E. The ground water in Section 28 is reported to be at a depth of 187' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 0 based on the as following:

Depth to ground water	>100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

ARTESIA
408 West Texas Ave.
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

AUSTIN
911 West Anderson Lane
Suite 202
Austin, Texas 78757
Phone 512.989.3428
Fax 512.989.3487

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88240
Phone 575.393.4261
Fax 575.393.4658

MIDLAND
2901 State Hwy 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

SAN ANTONIO
11 Commercial Place
Schertz, Texas 78154
Phone 210.265.8025
Fax 210.568.2191

TULSA
525 South Main Street
Suite 535
Tulsa, Oklahoma 74103
Phone 918.742.0871
Fax 918.382.0232

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Toll Free: 866.742.0742
www.talonlpe.com

Incident Description

On February 7, 2011 the flow line froze and ruptured. The well was shut-in, the flow line was repaired and well was returned to service. Sixty (60) barrels of produced water and oil were released. A vacuum truck was brought to the location and eight (8) barrels were recovered. The impacted area is located east of location as shown on the attached Site Plan.

Actions Taken

On June 10, 2011 Talon mobilized personnel to begin the assessment and soil sampling for the construction of a work plan. Grab soil samples were collected utilizing a split spoon auger rig. Soil boring S-1 was drilled to a depth of 15-feet below land surface in the impacted area. The samples were tested on site using the field titration method for chlorides. Visual impacts of petroleum contamination were noted to a depth of 2-3 feet. A petroleum odor was detectable in the samples collected at 4-feet deep. Samples collected at a depth of 6-feet and 8-feet were sent to the lab for analysis.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M and volatile organics (BTEX) using EPA Method 8021B. The chlorides were analyzed per SM4500Cl-B. The complete laboratory report is attached as Appendix II.

Field Testing Results

<u>Sample</u>	<u>Depth</u>	<u>Chlorides</u>
S-1	2'	1985 mg/kg
	4'	4608
	6'	141
	8'	141
	10'	141

Analytical Results

Analytical results received from Cardinal Laboratories are summarized below:

<u>Sample, Depth</u>	<u>Chlorides</u>	<u>BTEX</u>	<u>TPH</u>
S-1 6'	128	<50	399 mg/kg
S-1 8'	128	<50	<10

For this site's ranking, New Mexico Oil Conservation District action level criteria for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 5,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

General Soil Lithology

0'-6'	gray brown fine sands
6'-13'	light red/brown slightly clayey sands and caliche
13'-15'	light brown sl. clayey sands with trace amounts of Limestone
15'	refusal/top of rock

Summary and Conclusions

- Ground water in the project vicinity is greater than 100-feet below land surface per the New Mexico State Engineer Database.
- Following a review of field and lab data collected for this investigation, it appears the current release extends to a depth of 4-foot deep.
- Based on the depth to groundwater and the contamination levels detected in the soil within the impacted area, it is unlikely that the contaminants identified from this release will pose a threat to groundwater.

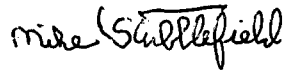
Proposed Remedial Actions

- The impacted soil from this release above the Recommended Remediation Action Levels (RRALs) will be excavated to a depth of 4-foot deep. The excavated soil will be transported to a NMOCD approved solid waste disposal facility.
- The excavated area will be backfilled back to grade using new material transported from a local borrow pit. The backfill material will be contoured to match the surrounding terrain and the area will be seeded with an approved seed mixture
- A final report documenting all field activities will be provided to the NMOCD Artesia Office and the BLM Carlsbad Office along with the final C-141 form.

Should you have any questions or if further information is required, please do not hesitate to contact us at 575.746.8768.

Respectfully submitted,

TALON/LPE

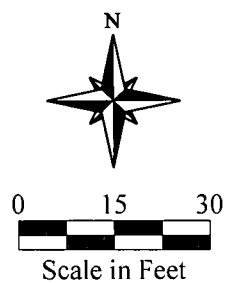
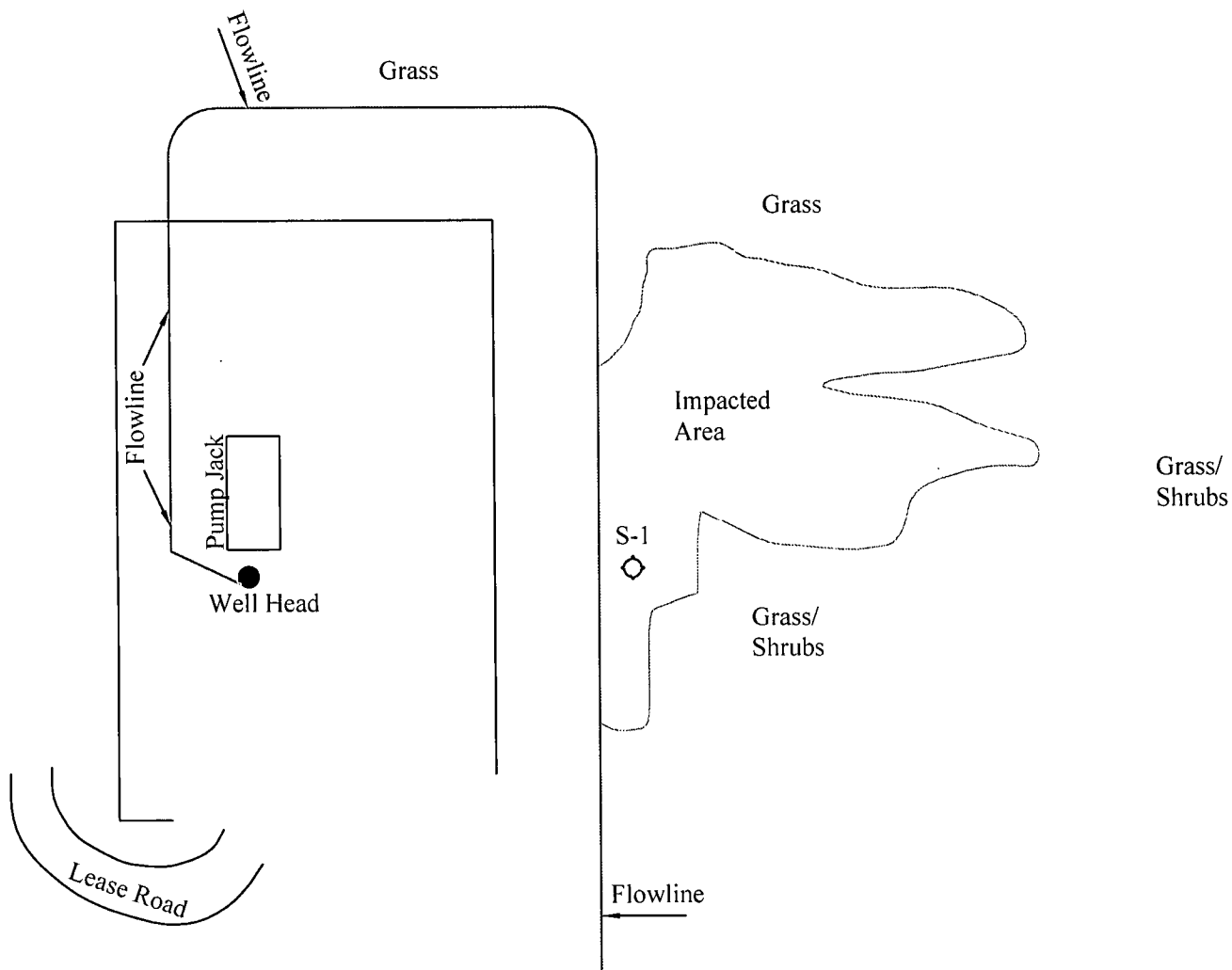


Mike Stubblefield
Project Manager



David J. Adkins
District Manager

SITE MAP



Legend

- - Well Head
- - Pump Jack
- ◇ - Boring #1
- - Impacted Area



Date: 06/24/2011

Scale: 1" = 30'

Drawn By: TJS

Midwest L No. 5
Occidental Petroleum Corporation
Eddy County, New Mexico
Figure 1- Site Plan

APPENDIX I
GROUNDWATER DATA
INITIAL C-141



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01192	C	DOM	ED	2	4	33	22S	26E		566664	3579084*	965	100		
C 02964	C	DOL	ED	3	3	2	33	22S	26E	566149	3579390*	1008	319		
C 02876	C	STK	ED	4	3	2	28	22S	26E	566332	3581028*	1191	505	187	318
C 02822	C	MUL	ED	2	3	1	33	22S	26E	565543	3579584*	1466	300		
C 01465	C	DOM	ED		2	27	22S	26E		568042	3581339*	1724	116	96	20
Average Depth to Water:													141 feet		
Minimum Depth:													96 feet		
Maximum Depth:													187 feet		

Record Count: 5

UTM NAD83 Radius Search (in meters):

Easting (X): 566947

Northing (Y): 3580007

Radius: 2000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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 Beaird
Address 1502 W. Commerce Carlsbad, NM 88220	Telephone No. (O) 575-628-4100
Facility Name Midwest L #5	Facility Type Oil well

Surface Owner Federal	Mineral Owner Federal	Lease No. API #: 3001532364
-----------------------	-----------------------	-----------------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	34	22S	26E					Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release Oil and Produced water	Volume of Release 60 bbls	Volume Recovered 8
Source of Release Poly flowline	Date and Hour of Occurrence	Date and Hour of Discovery 2-7-11 @ 9:00 am
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, Terry Gregston - BLM	
By Whom? Kelton Beaird- 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.*	RECEIVED JUL 07 2011
---	--------------------------------

Describe Cause of Problem and Remedial Action Taken.* line busted due to freezing temperatures.	NMOCD ARTESIA
--	----------------------

Describe Area Affected and Cleanup Action Taken.*
Area affected was across in the pasture east of the location. The area will be delineated, sampled, and tested for chloride, TPH, and BTEX impact. A clean-up plan will be submitted for approval.

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:		OIL CONSERVATION DIVISION	
Printed Name: Kelton Beaird		Approved by District Supervisor:	
Title: HES Specialist		Approval Date:	Expiration Date:
E-mail Address: kelton_beaird@oxy.com		Conditions of Approval:	
Date: 2-15-11		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

APPENDIX II
LABORATORY RESULTS



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

June 20, 2011

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: MIDWEST L #5

Enclosed are the results of analyses for samples received by the laboratory on 06/14/11 16:00.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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

Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 06/14/2011
Reported: 06/20/2011
Project Name: MIDWEST L #5
Project Number: NONE GIVEN
Project Location: S34-T22S-R26E

Sampling Date: 06/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-1 6' (H101233-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/16/2011	ND	448	112	400	0.00	

Sample ID: S-1 6' (H101233-02)

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2011	ND	1.92	96.1	2.00	2.32	
Toluene*	0.479	0.050	06/16/2011	ND	2.04	102	2.00	1.57	
Ethylbenzene*	0.247	0.050	06/16/2011	ND	2.03	102	2.00	2.24	
Total Xylenes*	1.63	0.150	06/16/2011	ND	5.99	99.9	6.00	1.72	

Surrogate: 4-Bromofluorobenzene (PIL) 113 % 70-130

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/18/2011	ND	199	99.3	200	3.48	
DRO >C10-C28	399	10.0	06/18/2011	ND	189	94.7	200	3.43	

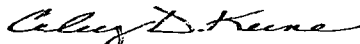
Surrogate: 1-Chlorooctane 84.4 % 70-130

Surrogate: 1-Chlorooctadecane 97.9 % 70-130

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 06/14/2011
Reported: 06/20/2011
Project Name: MIDWEST L #5
Project Number: NONE GIVEN
Project Location: S34-T22S-R26E

Sampling Date: 06/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-1 8' (H101233-03)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/16/2011	ND	1.92	96.1	2.00	2.32		
Toluene*	<0.050	0.050	06/16/2011	ND	2.04	102	2.00	1.57		
Ethylbenzene*	<0.050	0.050	06/16/2011	ND	2.03	102	2.00	2.24		
Total Xylenes*	<0.150	0.150	06/16/2011	ND	5.99	99.9	6.00	1.72		

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 70-130

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/18/2011	ND	199	99.3	200	3.48	
DRO >C10-C28	<10.0	10.0	06/18/2011	ND	189	94.7	200	3.43	

Surrogate: 1-Chlorooctane 87.3 % 70-130

Surrogate: 1-Chlorooctadecane 92.3 % 70-130

Sample ID: S-1 8' (H101233-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	06/16/2011	ND	448	112	400	0.00		

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

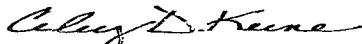
Notes and Definitions

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

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



Page 5 of 5