

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Oil Cons. DIV-Dist. 2  
1904 W. Grand Avenue  
Artesia, NM 88210

FORM APPROVED  
OMB NO. 1004-0136  
Expires: November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-028375(b)	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator OXY USA WTP Limited Partnership		7. Unit or CA Agreement Name and No.	
3a. Address P.O. Box 50250 Midland, TX 79710-0250		8. Lease Name and Well No. OXY Roscoe Federal #2	
3b. Phone No. (include area code) 432-685-5717		9. API Well No. 30-015- 33660	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 660 FNL 990 FWL NWNW(4) At proposed prod. zone 1205 FNL 669 FWL NWNW(4)		10. Field and Pool, or Exploratory Crow Flats Morrow	
14. Distance in miles and direction from nearest town or post office* 6 miles northwest from Artesia, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 4 T17S R27E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 660'		12. County or Parish Eddy	
16. No. of Acres in lease 320		13. State NM	
17. Spacing Unit dedicated to this well 320		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2871'	
19. Proposed Depth 9100' TVD - 9600' TMD		20. BLM/BIA Bond No. on file 9312774	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3388'		22. Approximate date work will start* 11/1/04	
		23. Estimated duration 30 days	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan  | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) David Stewart	Date 8/31/04
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Title

Sr. Regulatory Analyst

Approved by (Signature) /s/ Russell E. Sorensen	Name (Printed/Typed) /s/ Russell E. Sorensen	Date OCT 04 2004
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Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on Reverse)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

Reason Controlled Water Basin

Witness Surface Casing

Attachment 3160-3  
OXY Roscoe Federal #2  
SL-660 FNL 990 FWL BHL-1205 FNL 669 FWL  
SEC 4 T17S R27E Eddy County, NM  
Federal Lease No. LC-028375(b)

PROPOSED TD: 9100' TVD 9600' TMD

BOP PROGRAM: 0 - 400' None

400 - 1800' 13-3/8" 3M annular preventer, to be used as  
divertor only.

1800 - 9100' 11" 5M blind pipe rams with 5M annular  
preventer and rotating head below 8500'.

CASING: Surface: 13-3/8" OD 48# H40 ST&C new casing set at 400'  
17-1/2" hole

Intermediate: 9-5/8" OD 36# K55 ST&C new casing from 0-1800'  
12-1/4" hole

Production: 5-1/2" OD 17# N80 LT&C new casing from 0-9100'  
8-3/4" hole

CEMENT: Surface - Circulate cement with 175sx HES light premium plus w/ 2%  
CaCl<sub>2</sub> followed by 250sx PP w/ 2% CaCl<sub>2</sub>.

Intermediate - Circulate cement with 365sx Interfill C w/ .25#/sx  
Flocele followed by 200sx PP w/ 2% CaCl<sub>2</sub>.

Production - Cement with 805sx Interfill H w/ .1% HR-7 followed by  
415sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx  
salt + .2% HR-7. Estimated top of cement is 5500'.

Note: Cement volumes may need to be adjusted to hole caliper.

MUD: 0 - 400' Fresh water/native mud. Lime for pH control  
(9-10). Paper for seepage.  
Wt 8.7-9.2 ppg, Vis 32-34 sec

400 - 1800' Fresh/\*Brine water. Lime for pH control (10.0-  
10.5). Paper for seepage.  
Wt 8.3-9.0/10.0-10.1ppg, Vis 28-29 sec  
\*Fresh water will be used unless chlorides in  
the mud system increases to 20000PPM.

1800 - 5900' Fresh water. Lime for pH control(9-9.5). Paper  
for seepage.  
Wt 8.3-8.5 ppg, Vis 28-29 sec

5900 - 8000' Cut brine. Lime for pH control (10-10.5).  
Wt 9.6-10.0 ppg, Vis 28-29sec

8000 - 9100' Mud up with an Duo Vis/Flo Trol mud system.  
Wt 9.6-10.0ppg, Vis 32-36sec, WL<10cc

**Signature**

# State of New Mexico

Energy, Minerals and Natural Resources Department

## DISTRICT I

1625 N. FRENCH DR., HOBBES, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-	Pool Code 75720	Pool Name Crow Flats Morrow
Property Code 23302	Property Name OXY ROSCOE FEDERAL	Well Number 2
OGRID No. 192463	Operator Name OXY U.S.A. W.T.P., LP	Elevation 3388'

### Surface Location

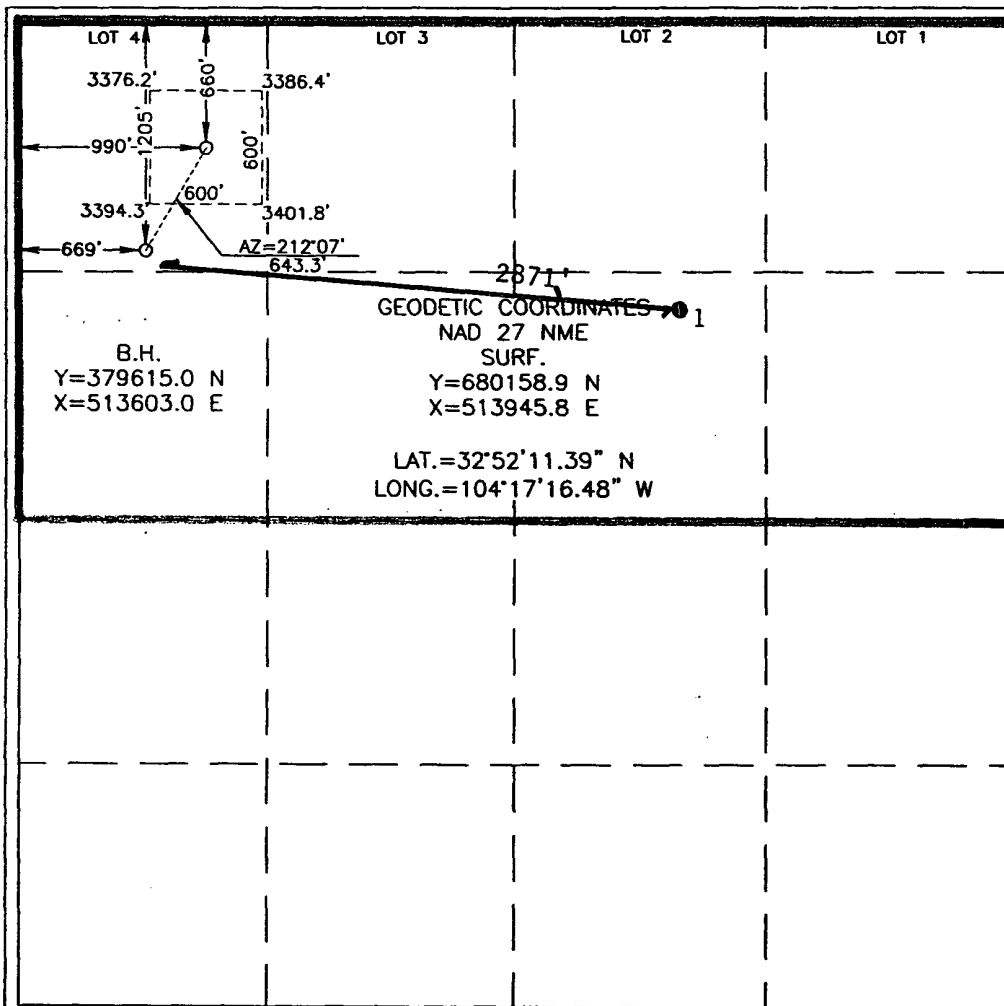
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	4	17-S	27-E		660	NORTH	990	WEST	EDDY

### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	4	17-S	27-E		1205	NORTH	669	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



### OPERATOR CERTIFICATION

I hereby certify the the information  
contained herein is true and complete to the  
best of my knowledge and belief.

*David Stewart*  
Signature

David Stewart

Printed Name

Sr. Regulatory Analyst

Title

Date

8/31/04

### SURVEYOR CERTIFICATION

I hereby certify that the well location shown  
on this plat was plotted from field notes of  
actual surveys made by me or under my  
supervision, and that the same is true and  
correct to the best of my belief.

JULY 26, 2004

Date Surveyed JR

Signature & Seal of  
Professional Surveyor

*Gary E. Edson* 8/5/04  
04.11.0930

Certificate No. GARY EDSON

12841

**OXY USA WTP Limited Partnership**  
P.O. Box 50250, Midland, TX 79710-0250

August 31, 2004

United States Department of the Interior  
Bureau of Land Management  
Roswell District Office  
2909 West Second Street  
Roswell, New Mexico 88201

Re: Application for Permit to Drill  
OXY USA WTP Limited Partnership  
OXY Roscoe Federal #2  
Eddy County, New Mexico  
Lease No. LC028375(b)

Gentlemen:

OXY USA WTP Limited Partnership respectfully requests permission to drill our OXY Roscoe Federal #2 located at a surface location of 660 FNL and 990 FWL and a proposed bottom-hole location of 1205 FNL 669 FWL of Section 4, T17S, R27E, Eddy County, New Mexico, Federal Lease No. LC028375(b). The proposed well will be drilled to a TD of approximately 9100' (TVD) and 9600' (TMD). The location and work area has been staked. It is approximately 6 miles northeast of Artesia, New Mexico.

In accordance with requirements stipulated in Federal Onshore Oil and Gas Order No. 1 under 43 CFR 3162.1, our Application for Permission to Drill and supporting evidence is hereby submitted.

I. Application for Permit to Drill:

1. Form 3160.3, Application for Permit to Drill.
2. Form C-102 Location and Acreage Dedication Plat certified by Gary G. Eidson, Registered Land Surveyor No. 12641 in the State of New Mexico, dated August 5, 2004.
3. The elevation of the unprepared ground is 3388 feet above sea level.
4. The geologic name of the surface formation is Permian Rustler.
5. Rotary drilling equipment will be utilized to drill the well to TD 9100' (TVD), and run casing. This equipment will then be rigged down and the well will be completed with a pulling unit.
6. Proposed total depth is 9100' (TVD) and 9600' (TMD).
7. Estimated tops of important geologic markers.

Wolfcamp	6000' TVD
Strawn	8250' TVD
Atoka	8600' TVD
Morrow	8700' TVD

8. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Primary Objective: Morrow 8700' TVD

Secondary Objective: Atoka 8600' TVD

9. The proposed casing program is as follows:

Surface: ~~13-3/8" 48# H40 ST&C new casing set at 400'~~  
~~Intermediate:~~ <sup>1200'</sup> 9-5/8" 36# HCK/K55 ST&C new casing from 0-1800'  
 Production: 5-1/2" 17# N80 LT&C new casing from 0-9100'

10. Casing setting depth and cementing program:

- A. ~~13-3/8" surface casing set at 400' in 17-1/2" hole.~~  
~~Circulate cement with 175sx HES light premium plus w/ 2% CaCl<sub>2</sub> followed by 250sx PP w/ 2% CaCl<sub>2</sub>.~~

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2% CaCl<sub>2</sub>.

- B. <sup>SURFACE</sup> 9-5/8" ~~intermediate~~ casing set at <sup>1200'</sup> ~~1800'~~ in 12-1/4" hole.  
 Circulate cement with 365sx Interfill C w/ .25#/sx Flocele followed by 200sx PP w/ 2% CaCl<sub>2</sub>.

If hole conditions dictate, a DV tool may be run to ensure that the intermediate string is cemented to surface.

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2% CaCl<sub>2</sub>.

Note: Cement volumes may be adjusted according to fluid caliper.

- C. 5-1/2" production casing set at 9100' in 8-3/4" hole.  
 Cement with 805sx Interfill H w/ .1% HR-7 followed by 415sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx salt + .2% HR-7.

Estimated top of cement is 5500'.

Note: Cement volumes may need to be adjusted to hole caliper.

11. Pressure Control Equipment

0-400'	None
<sup>1200'</sup> 625- <del>1800'</del>	13-3/8" 3M annular preventer, to be used as divertor only. Exhibit A
<sup>1200'</sup> <del>1800'</del> -9100'	11" 5000# ram type preventers with one set blind rams and one set pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 8000'. Exhibit A.

A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

After setting the 9-5/8" casing, the blowout preventers and related control equipment shall be pressure tested to 5000 psi. Any equipment failing to test satisfactorily shall be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log. The BOP's will be maintained ready for use until drilling operations are completed.

BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

12. Mud Program:

0-400'	Fresh water/native mud. Lime for pH control (9-10). Paper for seepage. Wt. 8.7-9.2 ppg, vis 32-34 sec.
625- <sup>1200'</sup> <del>1800'</del>	Fresh/ <del>*brine</del> water. Lime for pH control (10-10.5). Paper for seepage. Wt. 8.3-9.0/10.0-10.1ppg, vis 28-29 sec. *Fresh water will be used unless chlorides in the mud system increase to 20000PPM.
1800-5900'	Fresh water. Lime for pH control (9-9.5). Paper for seepage. Wt. 8.3-8.5 ppg, vis 28-29 sec.
5900-8000'	Cut brine. Lime for pH control (10-10.5). Wt. 9.6-10.0 ppg, vis 28-29 sec.
8000-9100'	Mud up with an Duo Vis/Flo Trol system. Wt. 9.6-10.0 ppg, Vis 32-36sec, WL<10cc.

Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1) A recording pit level indicator.
- 2) A pit volume totalizer.
- 3) A flowline sensor.

13. Testing, Logging and Coring Program:
  - A. Testing program: No DST's are anticipated.
  - B. Mud logging program: One-man unit from 6000' to TD.
  - C. Electric logging program: CNL/LDT/CAL/GR, DLL/CAL/GR.
  - D. Coring program: Possible sidewall rotary cores.
14. No abnormal temperatures, or H2S gas are anticipated. H2S Contingency Plan is attached per NMOC requirements. The highest anticipated pressure gradient would be .55psi/ft. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.
15. Anticipated starting date is November 1, 2004. It should take approximately 30 days to drill the well and another 10 days to complete.
16. The Multi-Point Surface Use & Operation Plan is attached.
17. If the Bureau of Land Management needs additional information to evaluate this application, please advise.

Very truly yours,



David Stewart  
Sr. Regulatory Analyst  
OXY USA WTP Limited Partnership

DRS/drs

Attachments



Oxy Permian  
OXY Roscoe Fed #2 - Plan #1

Eddy Co., New Mexico  
OXY Roscoe Fed #2

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
7000.00	0.000	210.498	7000.00	0.00 N	0.00 E	0.00	0.00
7100.00	3.000	210.498	7099.95	2.26 S	1.33 W	2.62	3.00
7200.00	6.000	210.498	7199.63	9.01 S	5.31 W	10.46	3.00
7300.00	9.000	210.498	7298.77	20.26 S	11.93 W	23.51	3.00
7400.00	12.000	210.498	7397.08	35.96 S	21.18 W	41.74	3.00
7500.00	15.000	210.498	7494.31	56.07 S	33.03 W	65.08	3.00
7600.00	18.000	210.498	7590.18	80.54 S	47.44 W	93.48	3.00
7655.89	19.677	210.498	7643.07	96.09 S	56.60 W	111.52	3.00
7700.00	19.677	210.498	7684.61	108.89 S	64.14 W	126.37	0.00
7800.00	19.677	210.498	7778.77	137.90 S	81.22 W	160.04	0.00
7900.00	19.677	210.498	7872.93	166.92 S	98.31 W	193.72	0.00
8000.00	19.677	210.498	7967.09	195.93 S	115.40 W	227.39	0.00
8100.00	19.677	210.498	8061.25	224.94 S	132.49 W	261.06	0.00
8200.00	19.677	210.498	8155.41	253.95 S	149.58 W	294.73	0.00
8300.00	19.677	210.498	8249.57	282.97 S	166.66 W	328.40	0.00
8400.00	19.677	210.498	8343.73	311.98 S	183.75 W	362.07	0.00
8500.00	19.677	210.498	8437.89	340.99 S	200.84 W	395.74	0.00
8600.00	19.677	210.498	8532.05	370.00 S	217.93 W	429.41	0.00
8700.00	19.677	210.498	8626.22	399.02 S	235.02 W	463.09	0.00
8800.00	19.677	210.498	8720.38	428.03 S	252.11 W	496.76	0.00
8900.00	19.677	210.498	8814.54	457.04 S	269.19 W	530.43	0.00
9000.00	19.677	210.498	8908.70	486.06 S	286.28 W	564.10	0.00
9100.00	19.677	210.498	9002.86	515.07 S	303.37 W	597.77	0.00
9203.17	19.677	210.498	9100.00	545.00 S	321.00 W	632.51	0.00

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.  
Vertical depths are relative to WELL. Northings and Eastings are relative to Well.

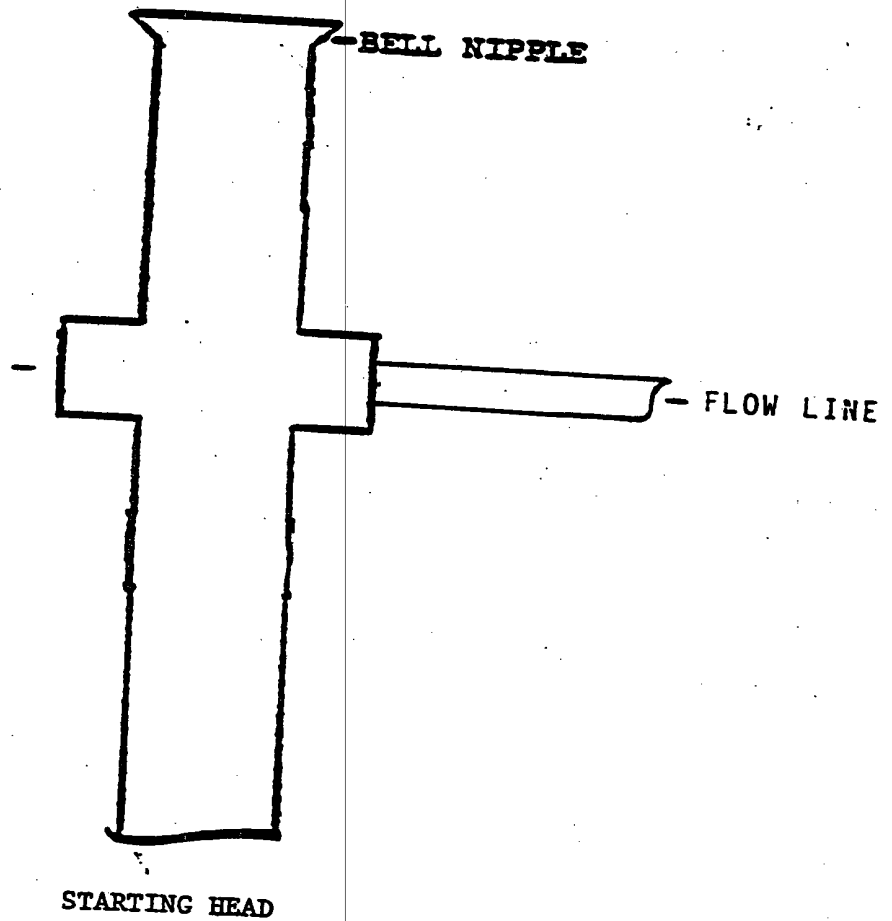
The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from Slot and calculated along an Azimuth of 210.500° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001.  
Central meridian is -104.333°.  
Grid Convergence at Surface is 0.025°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 9203.17ft.,  
the Bottom Hole Displacement is 632.51ft., in the Direction of 210.500° (Grid).

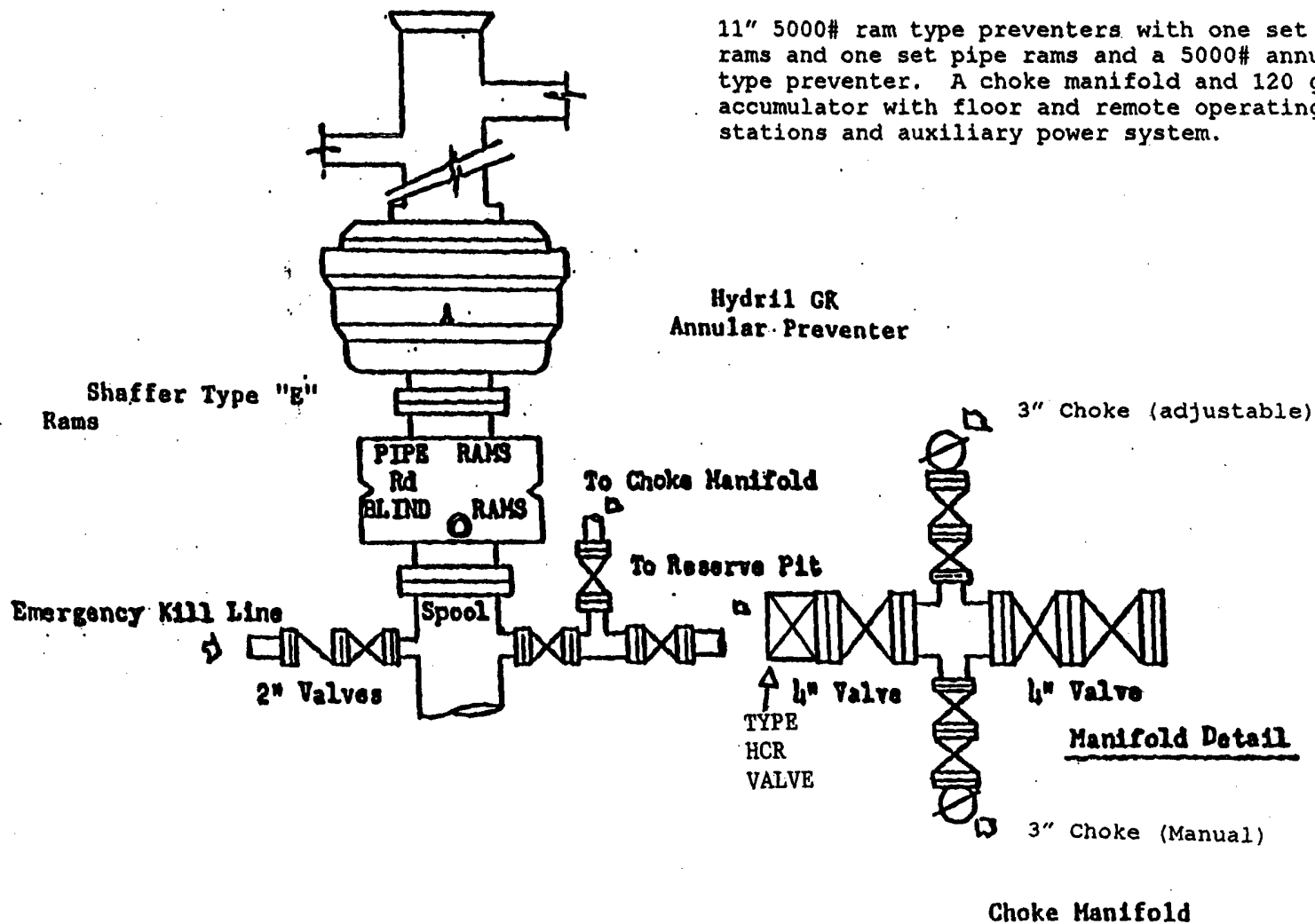
EXHIBIT A

ANNULAR PREVENTOR  
TO BE USED AS DIVERTOR ONLY



# BLOWOUT PREVENTOR SCHEME

EXHIBIT A



**Multi-Point Surface Use and Operations Plan**  
**OXY Roscoe Federal #2**  
**Page 4**

- H. The well site, if a producer, will be maintained and kept clean of all trash and litter which detracts from the surrounding environment. Equipment will be maintained in accordance with good operating practice.
- I. After the wellsite is cleaned and pits and sumps backfilled, any obstruction to the natural drainage will be corrected by ditching or terracing. All disturbed areas, including any access road no longer needed, will be ripped. Those areas will be reseeded with grass if, in the opinion of the land owner, it is required.

**13. Operator's Representatives and Certification**

The field representative responsible for assuring compliance with the approved surface use and operations plan are as follows:

John Erickson  
Production Coordinator  
P.O. Box 69  
Hobbs, New Mexico 88240  
Office Phone: 505-393-2174  
Cellular: 505-390-6426

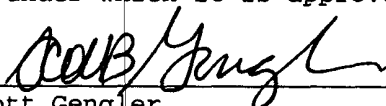
Joe Fleming  
Drilling Coordinator  
P.O. Box 50250  
Midland, TX 79710-0250  
Office Phone: 915-685-5858

Calvin C. (Dusty) Weaver  
Operation Specialist  
P.O. Box 2000  
Levelland, TX 79336  
Office Phone: 806-229-9467  
Cellular: 806-893-3067

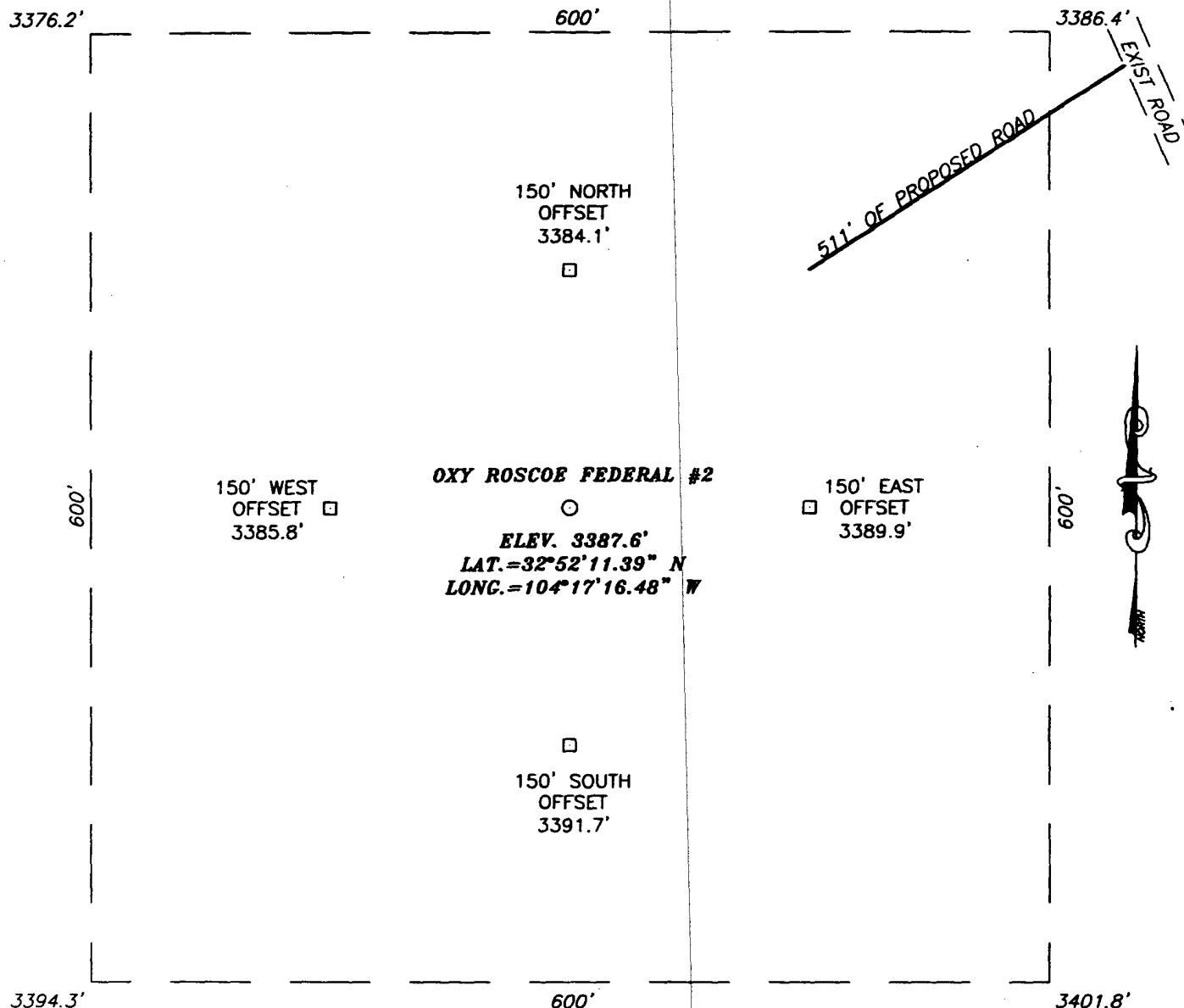
Terry Asel  
Operation Specialist  
1017 W. Stanolind Rd.  
Hobbs, NM 88240  
Office Phone: 505-397-8217  
Cellular: 505-631-0393

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by OXY USA WTP Limited Partnership and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

8/31/2004  
DATE

  
\_\_\_\_\_  
Scott Gengler  
Engineering Advisor  
432-685-5825  
South Permian Asset Team  
OXY USA WTP Limited Partnership

**SECTION 4, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.,**  
**EDDY COUNTY, NEW MEXICO**

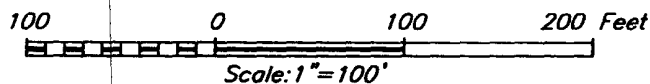


**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #200 (KARR RANCH RD.) GO NORTH ON CO. RD. #200 FOR APPROX. 1.9 MILES. TURN RIGHT (EAST) ON CALICHE ROAD AND GO APPROX. 1.5 MILES. TURN RIGHT (SOUTH) ON CALICHE ROAD AND GO APPROX. 800' TO PROPOSED ROAD SURVEY. FOLLOW PROPOSED ROAD SURVEY APPROX. 511' TO PROPOSED LOCATION.



PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 383-3117

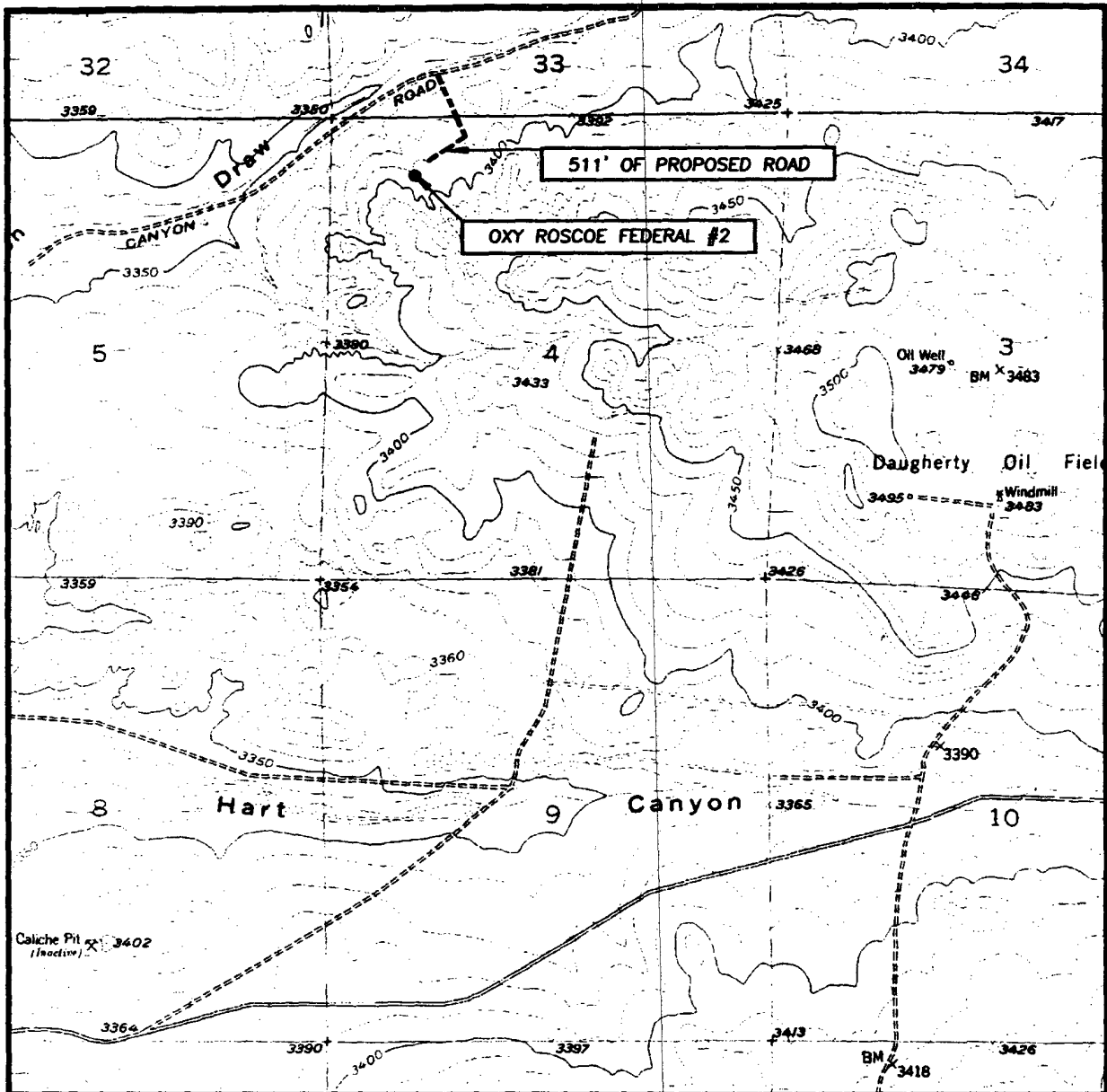


**OXY U.S.A. W.T.P., LP**

OXY ROSCOE FEDERAL #2 WELL  
 LOCATED 660 FEET FROM THE NORTH LINE  
 AND 990 FEET FROM THE WEST LINE OF SECTION 4,  
 TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date:	07/26/04	Sheet 1 of 1 Sheets		
W.O. Number:	04.11.0930	Dr By: J. RIVERO	Rev 1:N/A	
Date: 08/4/04	Disk: CD#10	04110930	Scale: 1"=100'	

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
SPRING LAKE, N.M. - 10'

SEC. 4 TWP. 17-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 990' FWL

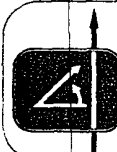
ELEVATION 3388'

OPERATOR OXY U.S.A. W.T.P., LP

LEASE OXY RESCOE FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

SPRING LAKE, N.M.

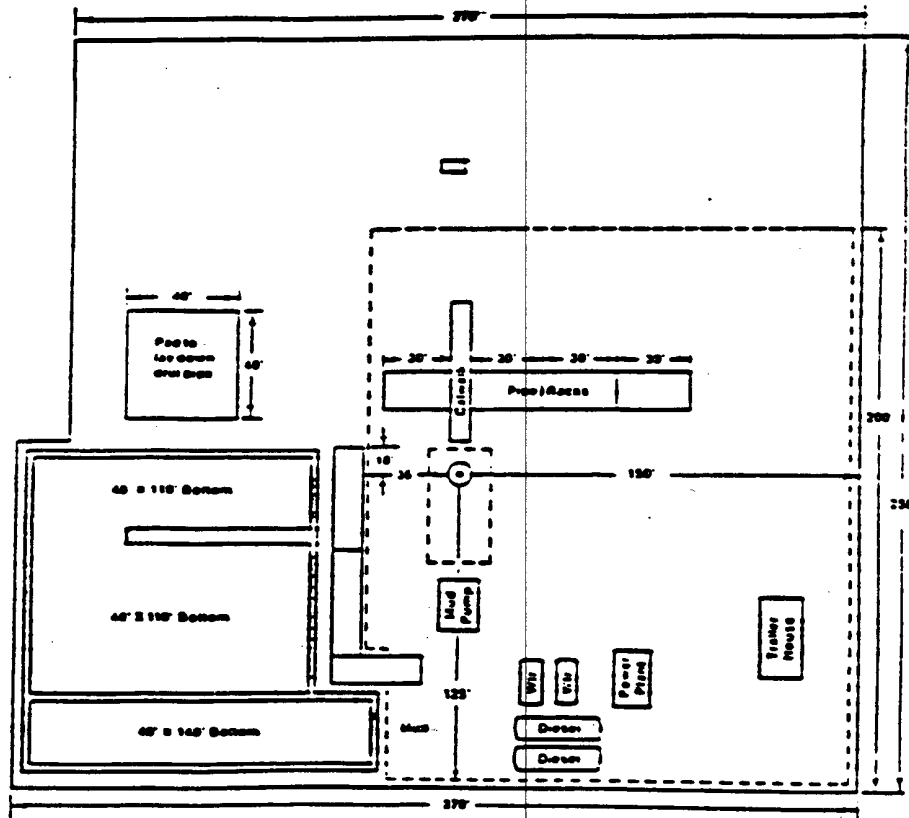


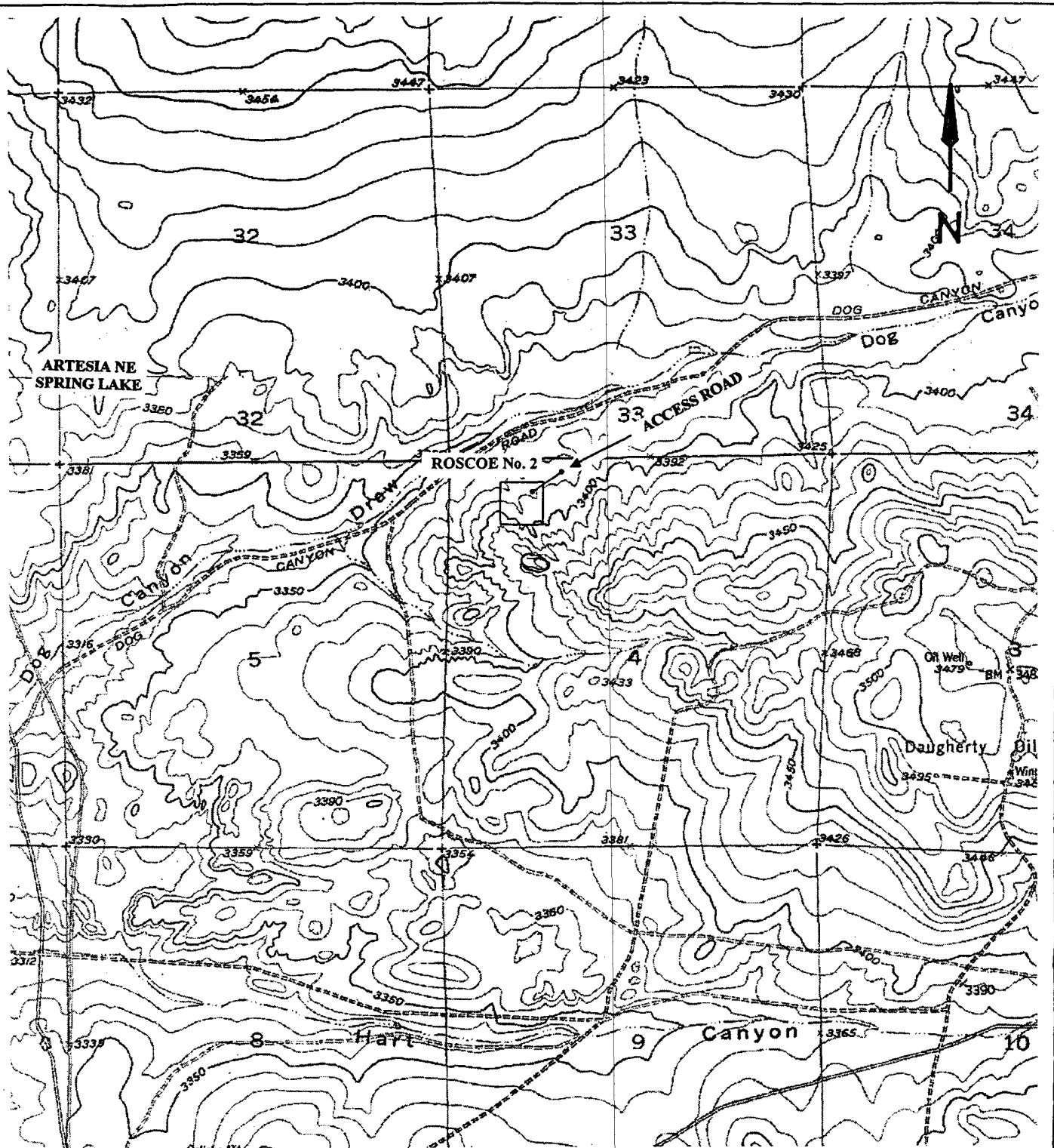
PROVIDING SURVEYING SERVICES  
SINCE 1946

**JOHN WEST SURVEYING COMPANY**

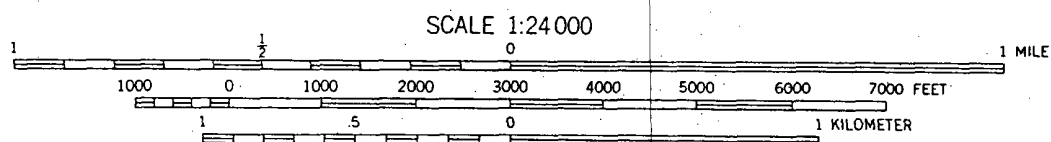
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 383-3117

EXHIBIT D  
LOCATION PLAT





Location Map of a pad and access road serving the OXY Roscoe Federal well No 2 for OXY U.S.A. W.T.P., LP in Section 4, T 17S, R 27E, NMPM, Eddy County, New Mexico.  
Map Reference: USGS 7.5' Series; SPRING LAKE, NM (1955, Photo Rev. 1975) 32104-G3





**OXY USA WTP  
Limited Partnership  
PO Box 50250  
Midland, TX 79710**

**Hydrogen Sulfide (H<sub>2</sub>S)  
Contingency Plan**

**For**

**OPL Roscoe Fed. No. 2  
660 ft FNL, 990 ft FWL  
Sec 4, T17S, R27E  
Eddy County, NM**

**And**

**McVay Drilling Co., Rig No. 8**

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## **PREFACE**

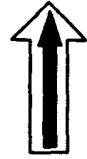
An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

Although the plan addresses varied emergency situations which may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into operation without confusion. These actions should promote quick and decisive actions during the critical initial period and immediately following an emergency. As the response progresses, additional guidelines and procedures may need to be implemented as the situation dictates. In addition, all emergency incidents must be properly reported per the Oxy Incident Reporting and Notification Policy, state and federal requirements, etc.

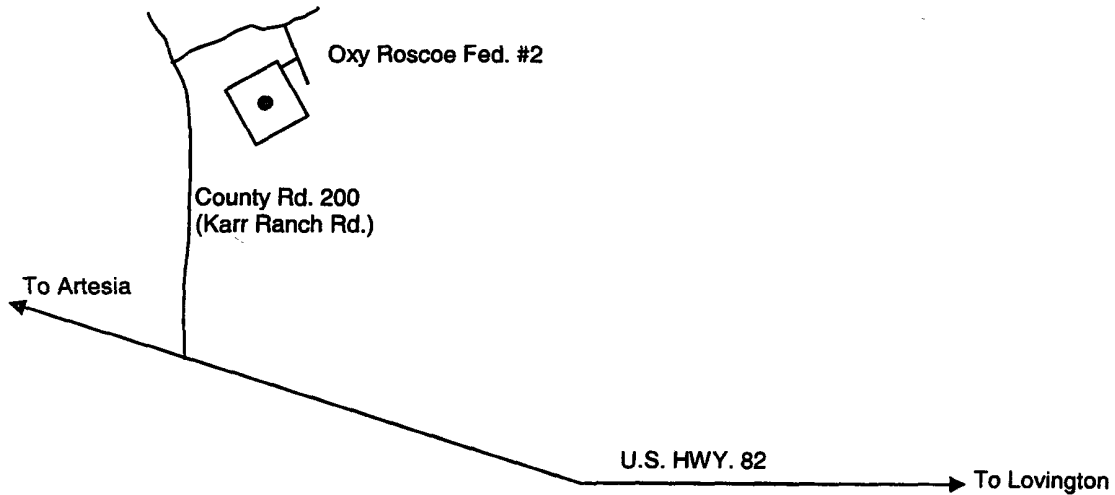
This Contingency Plan is intended for use on Oxy Downhole Services Group projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

A copy of the Plan shall be maintained in the Top Dog House, Rig Managers trailer, and Company Representative's trailer if applicable.

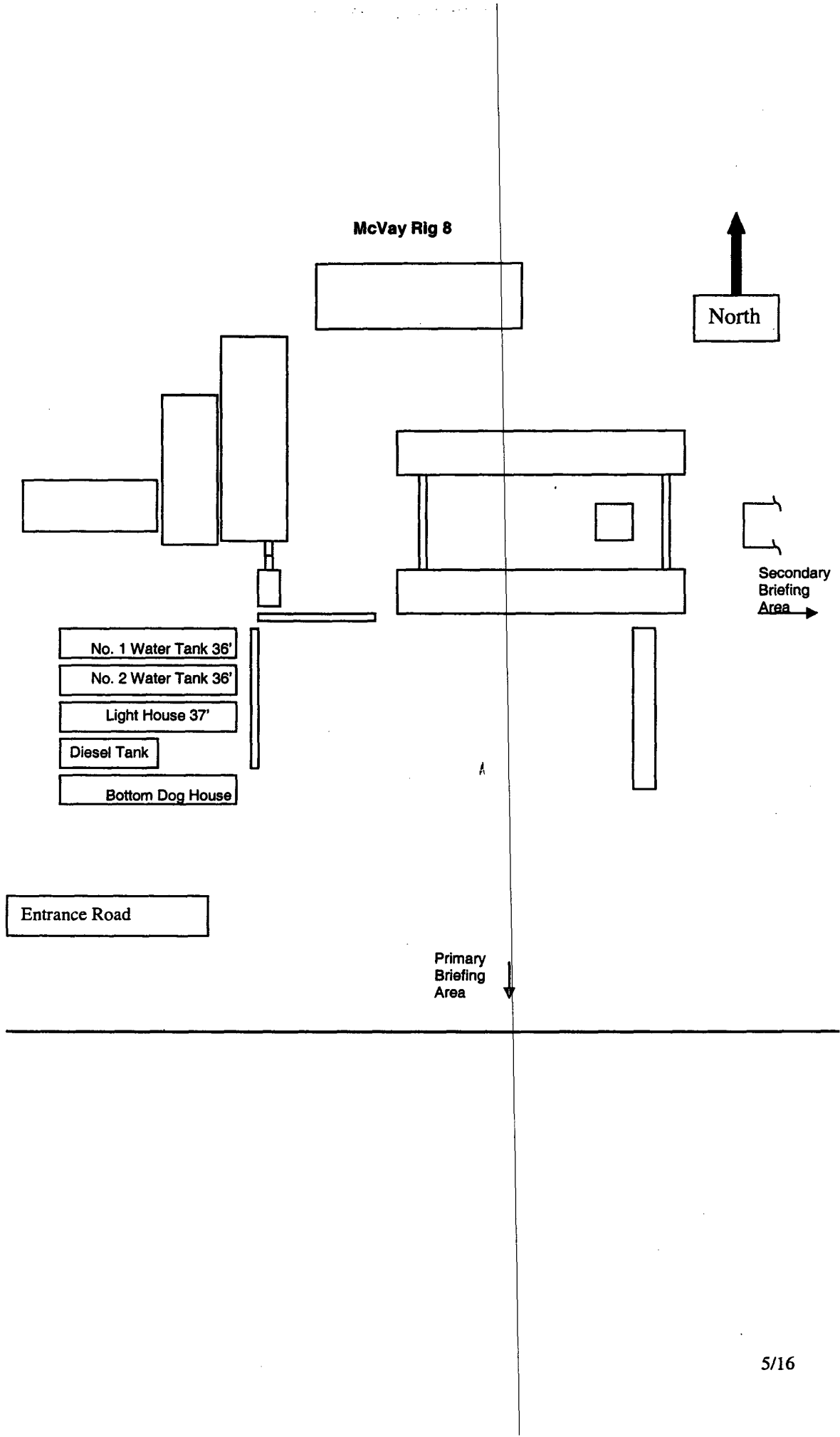
**Oxy Roscoe Fed. No. 2**  
**Y = 680158.9 N**  
**X = 513945.8 E**  
**Lat. 32°52'11.39"N**  
**Long. 104°17'16.48" W**



**NORTH**



**From the intersection of US HWY. 82 and County Rd. 200 (Karr Ranch Rd.) go north on County Rd. 200 for approximately 1.9 miles. Turn right (east) on caliche road and go approximately 1.5 miles. Turn right (south) on caliche road and go approximately 800 ft. Location is 500 ft.**



## **EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES**

### ***Activation of the Emergency Action Plan***

- A. In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document for further responsibilities:
  - 1. Notify the senior ranking contract representative on site.
  - 2. Notify Oxy representative in charge.
  - 3. Notify civil authorities if the Oxy Representative can not be contacted and the situation dictates.
  - 4. Perform rescue and first aid as required (without jeopardizing additional personnel).

### ***General Responsibilities***

#### **Oxy Permian Personnel:**

- A. Operations Specialist: The Oxy Drilling/Critical Well Servicing Operations Specialist or contract personnel serving in that capacity will serve as Operations Chief Officer for all emergency incidents. The Operations Chief Officer is responsible for:
  - 1. Notification to the Downhole Services Team Leader of the incident occurrence.
  - 2. Notification to the local RMT/PMT leader of the incident occurrence, and the need for the designated local RMT/PMT Incident Commander to act in that capacity for the response effort.
  - 3. Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.
- B. Local RMT/PMT Designated Incident Commander: The Oxy local RMT/PMT Designated Incident Commander will serve as the overall Incident Commander for the drilling or critical well servicing emergency incident. The Incident Commander is responsible for:
  - 1. Coordinating with the Downhole Services Team Leader for notification to the Oxy Crisis Management team of the incident occurrence.
  - 2. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.

- C. Downhole Services HES Tech: The Downhole Services HES Tech (or his designate) is responsible for reporting to the incident as soon as reasonably possible, to provide support to the response effort as required by the Operations Chief Officer or the Incident Commander.

**Contract Drilling Personnel** will immediately report to their assigned stations and perform their duties as outlined in the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document.

**Other Contractor Personnel** will report to the safe briefing area to assist Oxy personnel and civil authorities as requested when it is safe to do so and if they have been adequately trained in their assigned duties.

**Civil Authorities** (Law Enforcement, Fire, and EMS) will be responsible for:

1. Establishing membership in the Unified Incident Command.
2. As directed by the Incident Commander and the Unified Command, control site access, re-route traffic, and provide escort services for response personnel.
3. Perform all fire control activities in coordination with the Unified Command.
4. Initiate public evacuation plans as instructed by the Incident Commander.
5. Perform rescue or recovery activities with coordination from the Unified Command.
6. Provide medical assistance as dictated by the situation at hand.

### **H2S RELEASE**

The following procedures and responsibilities will be implemented on activation of the H2S siren and lights.

#### **All Personnel:**

1. On alarm, don escape unit (if available) and report to upwind briefing area.

#### **Rig Manager/Tool Pusher:**

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and /or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contractor management and Oxy Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

#### **Two People Responsible For Shut-in and Rescue:**

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.

2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

**All Other Personnel:**

1. Isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

**Oxy Representative:**

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

**Training**

There will be an initial training session prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan (Contingency Plan). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

**Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release. Ignition of the well will be with the concurrence of the drilling team leader and the Oxy Crisis Management Team as time allows.

**Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm



### Contacting Authorities

Oxy Permian personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as; type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

## **WELL CONTROL**

The following procedures will be implemented when a loss of primary control is indicated. Indicators of loss of primary control are flow from the well, an increase in pit volume, or when the drilling fluid used to fill the hole on trips is less than the calculated pipe displacement volume. The emergency signal for well control procedures will be a single long blast of the rig air horn.

### **Kick While Drilling - Procedures And Responsibilities**

#### **Driller:**

1. Stop the rotary and hoist the kelly above the rotary table.
2. Stop the mud pump(s).
3. Check for flow.
4. If flowing, sound the alarm immediately.
5. Ensure that all crew members fill their responsibilities to secure the well.
6. Record drill pipe and casing shut-in pressures and pit volume increase and begin kill sheet.

#### **Derrickman:**

1. Go to BOP/choke manifold area.
2. Open choke line valve on BOP.
3. Signal to Floorman #1 that the choke line is open.
4. Close chokes after annular or pipe rams are closed.
5. Record shut-in casing pressure and pit volume increase.
6. Report readings and observations to Driller.
7. Verify actual mud weight in suction pit and report to Driller.
8. Be readily available as required for additional tasks.

#### **Floorman # 1:**

1. Go to accumulator control station and await signal from Derrickman.
2. Close annular preventer and HCR on signal (if available, if not then close pipe rams).
3. Record accumulator pressures and check for leaks in the BOP or accumulator system.
4. Report to Driller, and be readily available as required for additional tasks.

#### **Floorman # 2:**

1. Start water on motor exhausts.
2. Notify Contractor Tool Pusher or Rig Manager of well control situation.
3. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
4. Report to Driller, and be readily available as required for additional tasks.

**Floorman # 3:**

1. Stand-by with Driller, and be readily available as required for additional tasks.

**Tool Pusher/Rig Manager:**

1. Notify Oxy Representative and report to rig floor.
2. Review and verify all pertinent information.
3. Communicate information to Oxy Representative, and confer on an action plan.
4. Finalize well control worksheets, calculations and preparatory work for action plan.
5. Initiate and ensure the action plan is carried out.
6. Communicate any changes in well or site conditions, or any indications that the action plan needs to be revised to the Oxy representative.

**Oxy Representative:**

1. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

**Kick While Tripping - Procedures and Responsibilities**

**Driller:**

1. Sound the alarm immediately when pipe displacement volume is less than 75% of calculated.
2. Position the upper tool joint just above rotary table and set slips.
3. Check for flow.
4. Ensure that all crew members fill their responsibilities to secure the well.
5. Record drill pipe and casing shut-in pressures and pit volume increase, and begin kill sheets.

**Derrickman:** (same as while drilling)

**Floor Man # 1:**

1. Install full opening valve (with help from Floorman #2) in top drill string connection.
2. Tighten valve with make up tongs.
3. Go to accumulator control station and await signal from Derrickman.
4. Close annular preventer and HCR valve on signal (if available, if not then close pipe rams).
5. Record accumulator pressures and check for leaks in the BOP and accumulator system.
6. Report to Driller, and be readily available as required for additional tasks.

**Floor Man # 2:**

1. Assist installing full opening valve in drill string.
2. Position back-up tongs for valve make-up.
3. Start water on motor exhausts.
4. Notify Contractor Tool Pusher or Rig Manager of well control situation.
5. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
6. Report to Driller, and be readily available as required for additional tasks.

**Floorman # 3, Rig Manager/Tool Pusher, and Oxy Representative:** (same as while drilling)

## ***PUBLIC RELATIONS***

Oxy recognizes that the news media have a legitimate interest in incidents at Oxy facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Oxy employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.

# OXY PERMIAN DOWNHOLE SERVICES GROUP

	LOCATION	OFFICE	HOME	CELL	PAGER
<b>Manager Operations Support</b>					
Hardesty, Steve	Midland	432-685-5880	432/694-6441	713-560-8095	
<b>Team Leader</b>					
Pennington, Randy	Midland	432-685-5684	432/689-7642	432-556-0207	
			Toledo Bend =	318-590-2349	
<b>Operations Specialists</b>					
Fleming, Joe	Midland	432-685-5858	432/699-0875	432-425-6075	432-498-3281
Ray, Fred	Midland	432-685-5683	432/362-2857	432-661-3893	432-499-3432
<b>HES Tech</b>					
Thompson, Don	Midland	432-685-5719	432/684-3900	432-556-1505	

## **Emergency Notification Numbers**

<b>Public Authorities</b>		
New Mexico State Police	Artesia	505/746-2704
New Mexico State Police	Carlsbad	505/885-3137
New Mexico State Police	Hobbs	505/392-5588
Eddy County Sheriff's Office	Artesia	505/746-2704
Eddy County Sheriff's Office	Carlsbad	505/887-7551
Lea County Sheriff's Office	Hobbs	505/393-2515
Local Emergency Planning Center	Eddy County	505/887-9511
Local Emergency Planning Center	Lea County	505/397-9231
New Mexico Oil & Gas Commission	Artesia	505/748-1283
New Mexico Oil & Gas Commission	Hobbs	505/393-6161
NM Emergency Response Center	Hobbs	505/827-9222

<b>Emergency Services</b>		
Fire Fighting, Rescue, Ambulance, Police	Artesia	911
Fire Fighting, Rescue, Ambulance, Police	Carlsbad	911
Fire Fighting, Rescue, Ambulance, Police	Hobbs	911
Flight For Life	Lubbock	806/743-9911
Aerocare	Lubbock	806/7478923
Med Flight Air Ambulance	Albuquerque	505/842-4433

<b>Other Emergency Services</b>		
Boots and Coots		1/800-256-9688
Cudd Pressure Control	Midland	432/699-0139
B.J. Services	Artesia	505/746-3569
Halliburton	Artesia	505/746-2757

**OXY Permian Production and Plant Personnel  
OXY Permian Crisis Team Hotline Notification (713) 935-7210**

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
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<b>Asset Management-Operations Areas</b>					
OXY Permian General Manager: Tom Menges	Houston	(281) 552-1147	(281) 552-1484	(713) 560-8038	
South Permian Asset: Matt Hyde	Midland	(432) 685-5802	(432) 685-5930	(432) 556-5016	

<b>RMT/PMT Leaders: South Permian Asset</b>					
Frontier RMT: Tommy Johnson	Midland	(432) 685-5671	(432) 685-4054	(432) 238-9343	(432) 567-7038

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
<b>Production Coordinators: S. Permian Asset</b>					
New Mexico: John Erickson	Hobbs	(505) 393-2174	(505) 397-2671	(505) 390-6426	(505) 370-6836

**OXY Permian HES Personnel  
OXY Permian Crisis Team Hotline Notification (713) 935-7210**

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
<b>HES Coordinators &amp; Area of Responsibility</b>					
Frontier: Tom Scott	Midland	(432) 685-5677	(432) 685-5742	(432) 448-1121	(432) 498-1312
<b>HES Techs &amp; Area of Responsibility</b>					
Hobbs RMT: Steve Bishop	Hobbs	(505) 397-8251	(505) 397-8204	(505) 390-4784	(877) 339-1954- 1118#
Frontier-New Mexico: Rick Kerby	Hobbs	(505) 393-2174	(505) 393-2671	(505) 390-8639	(505) 370-6527