# 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd, Aztec, NM 87410

# State of New Mexico Energy, Minerals & Natural Resources



Form C-101 May 27, 2004

Oil Conservation Divsiion FEB 26 2008 Submit to appropriate District Office 1220 S. St. Francis Dr. OCD-ARTESIA

Santa Fe, NM 87505

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE    Comparison Name and Address   Control Name   157984	District IV 1220 S. St. France	ıs Dr . Santa F	e. NM 875	05		Santa Fe, 1	NM :	87505	3081111	Е	AME	NDED REPORT
Continued   Permian Limited Partnership   P.O. Box 50250   Midland, TX 79710   30 - 015   3 Proposed Pool					O DRI	LL, RE-EN	NTEF	R, DEEPEN,	PLUGBA	CK, O	– R ADD	A ZONE
Decidental Perman Limited Partnership   P.O. Box 50250   Hidland   TX   79710   30 - 015   30 - 0		<sup>1</sup> Operator Name and Address								<sup>2</sup> OGR	ID Number	
Proposed Pool   Salt Draw Morrow. West   96819   Surface Location	i				)				3 API Number			
P-Quake    P-Quake   P-Qua	<u> </u>		land, I)	/9/10		5 Property	Name		30- 015-	<u> </u>		I No
Salt Draw Morrow. West 96819    UL or bit no	Порс	Try Code										
Surface Location   Series   Township   Range   Lot Ido   Feet from the   A   13   25S   27E   Lot Ido   Feet from the   660   north   660   east   Eddy		Salt Draw			819				<sup>10</sup> Propos	ed Pool 2		
Ut. or lot no		Juic Dru	1101101	, nest se	017	<sup>7</sup> Surface I	Locat	ion				
Section   Township   Range   Lot Idn   Feet from the   North-Scath Line   Feet from the   East-West Line   Country	UL or lot no	Section	Township	Range	Lot. Id:				Feet from th	ne East/	West line	County
Contact   Cont	Α	13									east	Eddy
Additional Well Location    Work Type Code   N -   G -   G -   R   R   P   30584			<sup>8</sup> I	roposed E	Bottom	Hole Locati	ion If	Different Fro	m Surface	<del>)</del>		
1   Work Type Code   12   Well Type Code   13   CasherRosary   14   Lense Type Code   15   Ground Level Elevation   3088   3088   15   Missiple   17   Proposed Depth   18   Formation   19   Contractor   19   20   19   20   19   20   10   10   10   10   10   10   10	UL or lot no	Section	Township	Range	Lot Id	Feet from t	the	North/South Line	Feet from th	ne East/	West line	County
1   Work Type Code   12   Well Type Code   13   CasherRosary   14   Lense Type Code   15   Ground Level Elevation   3088   3088   15   Missiple   17   Proposed Depth   18   Formation   19   Contractor   19   20   19   20   19   20   10   10   10   10   10   10   10		1			LA	l .dditional W	/ell Lo	ocation				
Proposed Depth   12900						<sup>13</sup> Cable/R	Rotary		se Type Code			
Depth to ground water   See C-144   Distance from nearest fresh water well   Distance from nearest surface water		-			l.			19 /	P			
Pit Liner. Synthetic mils thick Clay bils bils bils	_	-			·· ;			(				
Pit Liner: Synthetic	Depth to ground		 		Distance f	om nearest fresh	water w	ell	Distance from i	nearest surf	ace water	
Proposed Casing and Cement Program   Sacks of Cement   Estimated TOC	Pit Liner: Syr											
Proposed Casing and Cement Program   Sacks of Cement   Estimated TOC	·											
Hole Size Casing Size Casing weight/foot Setting Depth Sacks of Cement Estimated TOC  17-1/2" 13-3/8" 48# H40 600' 535 Surface  12-1/4" 9-5/8" 40# K55 2700' 750 Surface  8-3/4" 7" 26# HCP110 10000' 880 Surface  6-3/4" 4-1/2" 11.6# HCP110 12900' 675 9000'  22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any Use additional sheets if necessary  See Attachment  23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines X a general permit , or an (attached) alto rative OCD approved plan . Signature:  Printed name: David Stewart  Title: Sr. Regulatory Analyst  Phone: Conditions of Approval:				<sup>21</sup> F	ropose	d Casing an	nd Cei	ment Program	 1			
12-1/4"   9-5/8"   40# K55   2700'   750   Surface	Hole S	ize	Cas				I			ement	Es	timated TOC
12-1/4"   9-5/8"   40# K55   2700'   750   Surface	17-1/	2"	13	-3/8"	4			600'	535			Surface
6-3/4"  4-1/2"  11.6# HCP110  12900'  675  9000'  22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any Use additional sheets if necessary  See Attachment  23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines  a general permit , or an (attached) alternative OCD approved plan .  Approved by:  Title:  Sr. Regulatory Analyst  E-mail Address: david stewart@oxy.com  Phone:  Conditions of Approval:	12-1/	4"	9.	5/8"	4	0# K55		2700'	750			Surface
22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any Use additional sheets if necessary  See Attachment  23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines a general permit on an (attached) alternative OCD approved plan or a general permit or a general permit or a general permit or an attached plan or a general permit or an attached plan or a general permit or a general	8-3/4	1"		7"	26 <del>/</del>	HCP110		10000'	880		Surface	
See Attachment  See Attachment  See Attachment  OIL CONSERVATION DIVISION  my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines  a general permit , or an (attached) alternative OCD appurated plan .  Printed name: David Stewart  Title: Sr. Regulatory Analyst  E-mail Address: david stewart@oxy.com  Date. Phone: Conditions of Approval:	6-3/4	1"	4.	1/2"	11.6	# HCP110		12900'	675			
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my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines a general permit, or an (attached) alternative OCD approved plan  Signature:  Printed name: David Stewart  Title:  Sr. Regulatory Analyst  E-mail Address: david_stewart@oxy.com  Date.  Phone:  Approved by:  Approved by:  DISTRICT II GEOLOGIST  Approval Date: 2 - 26 - 68 Expiration Date. 2 - 26 - /o  Conditions of Approval:						See Attach	hment					
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Printed name: David Stewart  Title: Sr. Regulatory Analyst Approval Date: 2 - 26 - 10  E-mail Address: david_stewart@oxy.com  Date. Phone: Conditions of Approval:	an (attached) alt				eneral pe	mit 🔲 , or	l					
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E-mail Address: david_stewart@oxy.com  Date. Phone Conditions of Approval:	Title: Sr	^. Regulat	tory Ana	lyst			Appro					
	E-mail Address:	david_ste	ewart@ox	y.com								
		08			)	717	I					

Operator Name/Number: Occidental Permian LP - 157984

Lease Name/Number: P-Quake #1

Pool: Undesignated Salt Draw Morrow, West (Gas) - 96819

Surface Location: 660 FNL 660 FEL A - Sec 13 T25S R27E - Eddy County NM

Bottom Hole Location: N/A

Cost Center/AFE No.:

**C-102 Plat**: 1/4/08 1/23/08 2/7/08 **Elevation**: 3058'

**Lat:** 32.1354053 **Long:** 104.1370783 **X=**560748.5 **Y=**413037.8 **NAD -** 1927

DWE (Detailed Well Estimate): 2/1/08 Geologic Well Prognosis: 2/1/08

**Proposed TD:** 12900' TVD 12900' TMD

# **Casing Program:**

<u>Hole</u> <u>Size</u>	<u>Interval</u>	OD Csg	Weight	<u>Collar</u>	<u>Grade</u>	Condition	Collapse Design Factor	<u>Burst</u> <u>Design</u> <u>Factor</u>	Tension Design Factor
17-1/2"	600'	13-3/8"	48#	STC	H40	New	2.63	3.97	4.24
12-1/4"	2700'	9-5/8"	40#	LTC	K55	New	1.83	1.44	1.77
8-3/4"	10000'	7"	26#	LTC	HCP110	New	1.2	1.31	2.59
6-3/4"	12900'	4-1/2"	11.6#	LTC	HCP110	New	1.55	2	3.09

## **Cement Program**

a. 13-3/8" Surface Cement to Surface w/ 285sx HES light PP w/ 2% CaCl<sub>2</sub> + .125#/sx Poly-E-Flake 12.7ppg

1.89yield followed by 250sx PP w/ CaCl<sub>2</sub>., 14.8ppg 1.34yield

b. 9-5/8" Intermediate Cement to Surface w/ 550sx IFC w/ .125#/sx Poly-E-Flake 11.9ppg 2.45yield

followed by 200sx PP w/ 2% CaCl<sub>2</sub> 14.8ppg 1.34yield.

c. 7" Intermediate DV Tool @ +/-5000', cement 1st stage w/ 250sx IFH w/ .1% HR-7 2.76ppg 11.5yield followed

by 200sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx salt + .2% HR-7

13 ppg 1.67 yield. Cement 2nd stage w/ 230sx IFH w/ .125#/sx Poly-E-Flake 11.5ppg 2.76yield

followed by 200sx PP 14.8ppg 1.32yield. Estimated TOC @ surface.

d. 4-1/2" Production Cement w/ 675sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx salt +

.2% HR-7 13ppg 1.67yield. Estimated TOC @ 9000'.

#### **Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid</u>	Type System	
	ppg	sec	<u>Loss</u>		
0-600'	8.7-9.2	32-34	N/C	Fresh Water/native mud	
600-2700'	8.3-10.1	28-29	N/C	Fresh/*Brine Water	
2700-10000'	8.3-8.5	28-29	N/C	Fresh Water	
10000-11000'	9.6-10.0	28-29	<20cc	Cut Brine	
11000-12900'	9.6-10.0	32-36	<10cc	Duo Vis/Flo Trol	

<sup>\*</sup>Fresh water will be used unless chlorides in the mud system increases to 20000ppm

# **BOP Program (1):**

Surface

0-600'

None

Intermediate 600-2700'

13-5/8" CIW 10M three ram stack w/ 5M annular preventer, to be used as diverter only.

Production 2700' - TD

13-5/8" CIW 10M three ram stack w/ 5M annular preventer, w/ rotaing head below 10000'

# Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

		·				
Geological Marker			<u>Depth</u>	Ţ	ype	Source
a. Upper Permian Sand			150'		ater	NMOSE
b. Rustler			595'	<u></u> _		3001523959
c. T. Salt			816'			"
d. B. Salt			2060'			11
e. Lamar			2610'		Oil	GWP
f. Delaware			2648'		Oil	"
g. Bone Spring			6260'		Oil	""
h. 1st Bone Spring			7173'		Oil	"
<ol> <li>i. 2nd Bone Spring</li> </ol>			8026'		Oil	"
j. 3rd Bone Spring			9033'		Oil	
k. Wolfcamp			9418'		3as	"
I. Penn			10998'		Gas	
m. Strawn			11408'		3as	***
n. Atoka			11630'		Sas	····
o. Morrow			12208'		Gas	···
p	_				<del></del>	
q	_					
r	_					
Spacing Unit:		N/2	320ac			
Spud Date:		3/1/08				
A. 1. 0		N1/A N1 +	<b>5</b>	ADD		
Arch Survey:		N/A - Not	Required for this	APD		
Surface Outroom	Davis	00 N	Danadana Cta	1500 Oklaha	Cit. OK	
Surface Owner:	Devon En	ergy 20 N	. Broadway, Ste.	1500 Oklanol	ma City, OK	· <u>-</u>
Surface Lessee:	None					
Surface Lessee.	None					· · · · ·
Lease Responsibility Staten	nent:	NI/A - Not	Required for this	ΔPD		1
Lease Nesponsibility States	nent.	IN/A - INOL	required for tills	VI. D		
Private Surface Owner Agre	ement:	NI/A No+	Required for this	APD		
i iivate Suriace Owner Agre	eilleilt.	IN/A - INOL	required for tills	Λι· υ		

Nearest Residence/Structure	None within 2 miles	_						
Wellsite Layout (5):		V-door - North	_	Pits - <u>V</u>	Vest			
ource of Construction Material:  Caliche will be obtained from a private pit in SE/4 Sec 21 T24S R28E								
on lease road north for 0.1 r		ntersection of USH 285 oad and go west for 1.8 0.1 mile to proposed new nwest for 0.3 miles to loc	miles. Turn r road. Turn v	orth for 1 mile	e. Turn West fo 1.3 mile	s. Turn		
Proposed Road:	4022.1' we	est/southwest from an ex	xisting lease r	oad.				
Logging Program:		Neutron Density\Resis	tivity					
Production Facilities Layout	Production Facilities Layout (4):  N/A - Not Required for this APD							
Flowlines: Size -	N/A	_ Length -	N/A		Buried/Surface -	N/A		
Disposal Fluids - Transporte	d by:	N/A - Not Required for	this APD			·		
H₂S Contingency Plan:			2/14/08					
Pit Permit:			2/14/08					
Directional Survey Plan:		N/A - Not F	Required for th	nis APD				
Exhibit #1 - BOP Equipment			2/5/08					
Exhibit #2 - Plat Access Roa	1/4/08	1/23/08						
Exhibit #3 - Plat One Mile (9 Sec) AOR Map			2/1/08					
Exhibit #4 - Production Facil	N/A - Not Re	equired for this	s APD					
Exhibit #5 - Well Site Layout		2/5/08						

District 1 1625 N. French Dr., Hobbs, NM 88240 1301 W. Grand Avenue, Artesia, NM 88210 District III

1000 Rio Brazos Rd., Aztec, NM 87410

1220 S. St. Francis Dr., Santa Fe, NM 87505

District IV

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505 FEB 26 2008

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office

State Lease- 4 Copies Fee Lease-3 Copies

☐ AMENDED REPORT

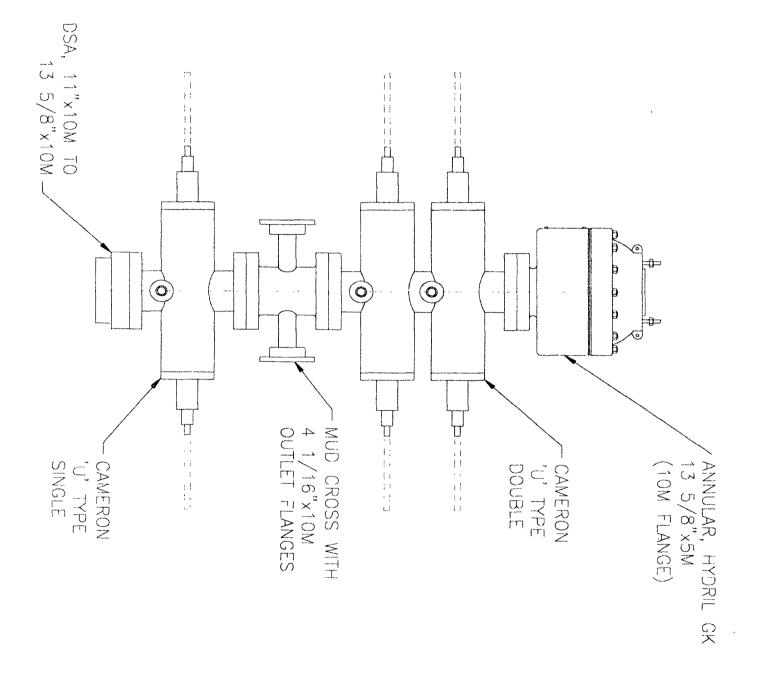
WELL LOCATION AND ACREAGE DEDICATION

	API Numb	er		Po	ol Code				Pool Name	ol Name			
3C-	-015			<u>ç</u>	6819		Sa	lt Draw N	Morrow, W	lest (Ga	as)		
Propert	ty Code					Property					W	ell Number	
370	36					-QUA						1	
OGRID	10.					Operator						Elevation	
1579	984				ocidenta	l Per	mian Lin	ited Part	nership			3058'	
					Sui	rface	Location						
UL or lot no. Se	ction T	ownship		Ra	nge	Lot Idn	Feet from the	North/South line	Feet from the	East/West	line	County	
A i	13   25	SOUTH	2	7 EAST,	N. M. P. M.		660'	NORTH	660'	EA.	ST	EDDY	
	• • •			Bottom	Hole Loca	ation	If Differen	t From Sur	face				
UL or lot no. Se	ction T	ownship			nge	Lot Idn	Feet from the	North/South line	Feet from the	East/West	line	County	
Dedicated Ac	res Joint	or Infill	Conso	lidation Code	Order No.	1	<u> </u>	<u> </u>				<u></u>	
320		N											
No allowable division.	will be a	ssigned to	this	completion	until all inte	rests h	ave been co	nsolidated or	a non-stand	ard unit h	as been	approved by the	
					NEW MEXIC NAD 1 Y=413 X=560 LAT.: N 32. LONG.: W 10-	)37.8 '48.5 1354053	33	660'	conto to the believe either unless included contraction composition of the contraction of the contraction components.	ained hereine best of f, and that r owns a vased minerading the prior or has at this locat with a ral or work tary pooling bulsory pooling bulsory pooling the prior of the four work that was at this locat with a ral or work tary pooling bulsory pooling bulsory pooling the four was at this location.	that then is true my know this on working in al interex roposed a right ation pun n owner king intel g agree division.	e information and complete wledge and ganization interest or st in the land bottom hole to drill this rsuant to a of such a rest, or to a	
						<u> </u>				ed Name	11 L-SI	neg Analys	

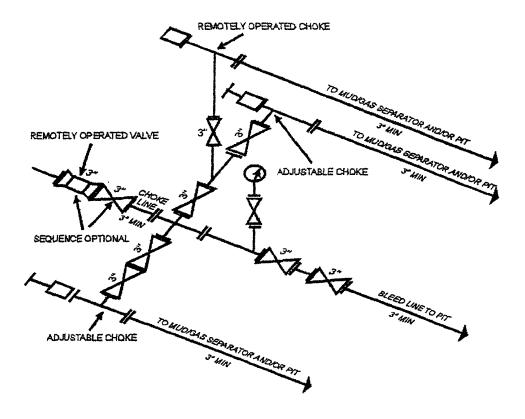
# SURVEYOR CERTIFICATION

shown field n octual Euryeys made by by supervision, and that we and conject to the me of to best

WO# 080104WL-a (KA)

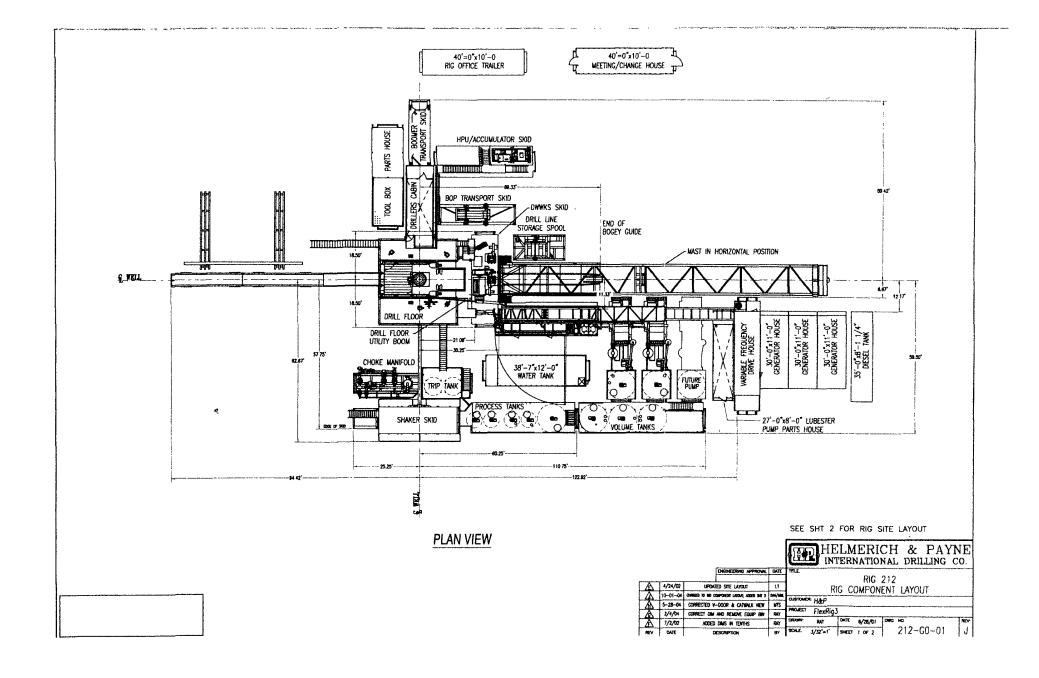


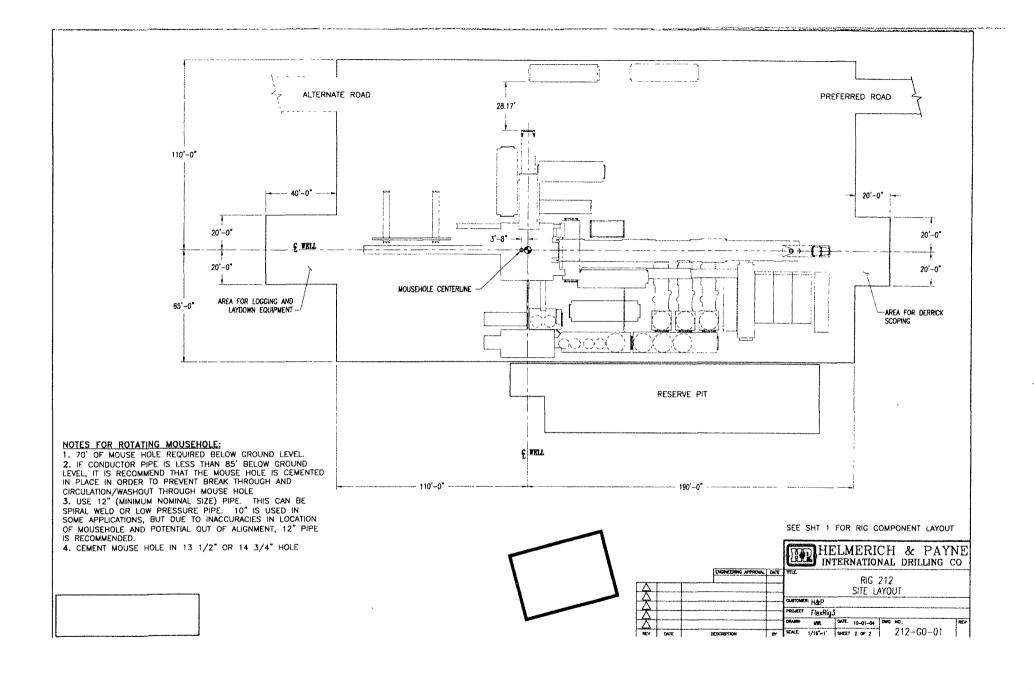
BOP STACK

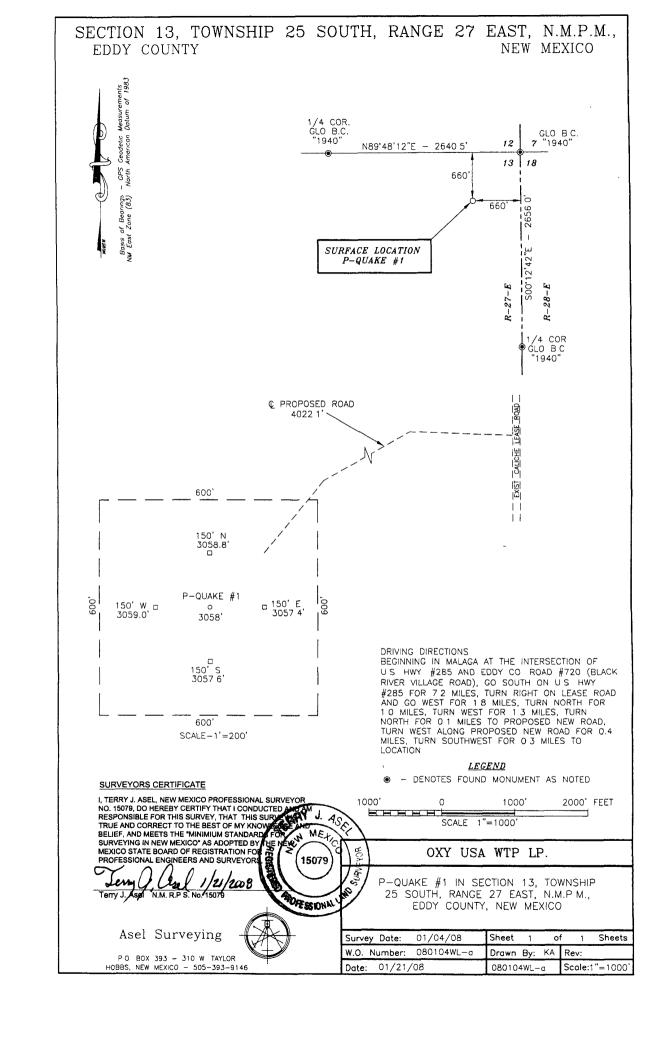


10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY [53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989]

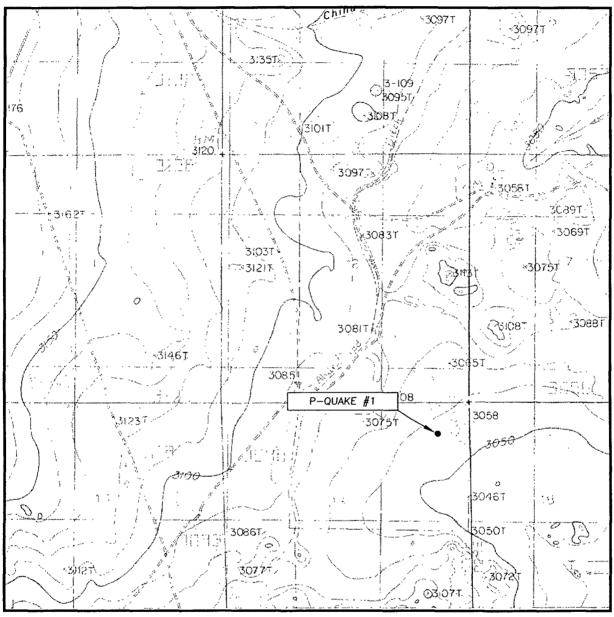
Attachment I - 3







# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 13 TWP. 25-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 660' FEL

ELEVATION 3058'

OPERATOR OXY USA WTP LP

LEASE P-QUAKE #1

U.S.G.S. TOPOGRAPHIC MAP

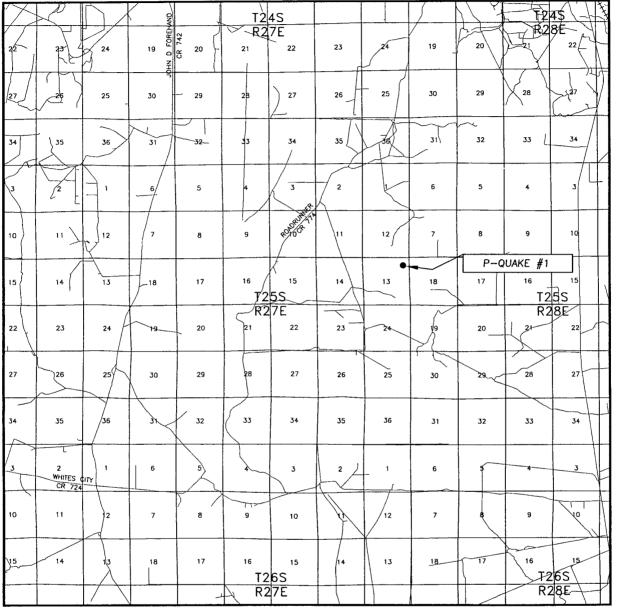
BOND DRAW, N.M.

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR HOBBS, NEW MEXICO - 505-393-9146



# VICINITY MAP



SEC. 13 TWP. 25-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 660' FEL

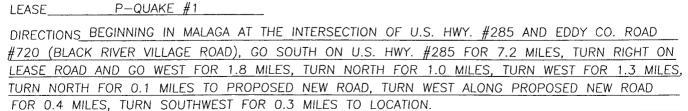
ELEVATION 3058'

OPERATOR OXY USA WTP LP

SCALE: 1" = 2 MILES

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR HOBBS, NEW MEXICO - 505-393-9146





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FEB 26 2008 OCD-ARTESIA

# **OXY Permian**

# **EMERGENCY ACTION PLAN**

Malaga Area
Blame Thrower #1
Full Recovery #1
Lookin Up #1
P-Quake #1

DRILLING/WORKOVER

DRILLING AND CRITICAL WELL OPERATIONS

02/21/2008

# DRILLING/WORKOVER DRILLING AND CRITICAL WELL OPERATIONS

# **EMERGENCY ACTION PLAN**

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# **PREFACE**

An effective and viable Emergency Action Plan (EAP) 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 that 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.

The following procedures are provided as Oxy Permian's minimum expectations. The Contractor's own procedures may be utilized in lieu of Oxy Permian's, provided that it meets or exceeds the minimum deliverables. It should be understood that this list is not all-inclusive, but the overall plan should assist in lateral application to similar incidents.

This EAP is intended for use on Oxy Drilling/Workover projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

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# **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 five (5) through nine (9) 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 cannot be contacted and the situation dictates.
  - 4. Perform rescue and first aid as required (without jeopardizing additional personnel).

## General Responsibilities

## **Oxy Permian Personnel:**

- A. Drill Site Manager: 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 Drilling/Workover 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 Drilling Manager 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. Drilling/Workover HES Tech: The Drilling/Workover 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 five (5) through nine (9) 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.

#### 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 Drilling Superintendent or Drilling Manager and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

#### WELL CONTROL (continued)

## 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)

### **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. Remain at the briefing area and await further instructions - do not leave unless instructed.

### 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 Drilling Superintendent or Drilling Manager and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

#### PERSONAL INJURY OR DEATH

Call for assistance, and then administer first aid for the injured. Treatment should be prioritized by life-threatening conditions.

A. Do not move injured personnel unless they are in imminent danger. An ambulance should be summoned for any injury that appears to be serious.

#### FIRE OR EXPLOSION

#### Fire Fighting Philosophy

It is Oxy Permian's intent that Oxy and contract personnel will only extinguish incipient or beginning stage fires and perform or assist in initial non-threatening rescue operations. The responding fire department will be given primacy when they arrive to control a fire on any Oxy property. Any Oxy or contract employee who participates in a fire response must be fully trained and qualified as such, and must be utilizing appropriate Personal Protective Equipment.

# Contract and Oxy Personnel Deployment

In the event of a fire or explosion all personnel will report to the safe briefing area. The Senior Contract Representative on site will designate personnel for rescue as appropriate depending on their qualifications and the risks of the rescue. Any rescue which involves significant risk to those performing the rescue should be deferred to professional response personnel.

No personnel will leave the area without direction / permission from the Senior Contract Representative onsite.

The Senior Contract Representative on site will notify local emergency response personnel as required, along with the Contract Company management and the Oxy Representative as soon as reasonably possible.

# **SPILLS**

In the event of a significant spill of any substance, the person discovering it should immediately notify the rig supervisor and the Oxy Representative. Personnel onsite should **NOT** attempt identification, control or containment unless they are absolutely sure of the product spilled, are fully aware of the hazard characteristics, and are equipped with the appropriate personal protective equipment.

# HYDROCARBON VAPOR CLOUD RELEASE

Upon discovery of a Hydrocarbon Vapor Cloud (NGL) release, take immediate safety precautions to protect any company personnel or others that might be in the area. Other emergency actions should be initiated only by trained expert personnel from the appropriate pipeline company.

#### The following guidelines should be followed:

- 1. Immediately notify the rig supervisor and the Oxy Representative.
- 2. Determine wind direction, and evacuate upwind or at 90 degrees to the release.
- 3. Maintain a safe distance from the cloud.
- 4. Render first aid and call for an ambulance as necessary.
- 5. Attempt to warn approaching individuals of the hazard.

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# **BOMB THREAT**

In the event of a bomb threat, the person receiving the call, on or off site, should try to get as much information as possible from the caller. The person receiving the call should immediately contact the supervisor in charge. Evacuation of the field should be considered at this time. Roadblocks may need to be installed. The supervisor in charge should make all appropriate contacts.

# The Supervisor contacted should:

- a. Realize that every bomb threat is serious.
- b. Notify Corporate Security
- c. Inform Police/Sheriff's Department and Fire Department
- d. Contact RMT Leader or his designated relief to coordinate search efforts with the assistance of the local law enforcement agencies.

### BOMB THREAT CHECKLIST

Date	Name of person tak	ing call	Pho	ne # call came on				
FILL OUT CO	FILL OUT COMPLETELY IMMEDIATELY AFTER BOMB THREAT							
1. When is the bomb set to explode?  2. Where is the bomb located?  3. What does the bomb look like?  4. What type of bomb is it?  5. What will cause the bomb to explode?  6. Did the caller place the bomb?  7. Why did the caller place the bomb?  8. What is the caller's name and address?  Callers: Sex Age Race Length of call								
DESCRIPTION OF CALLER'S VOICE (Check all that apply)								
Calm Angry Excited Slow Loud	RapidCryingNormalDistinctSlurred	Laughing Raspy Deep Ragged Nasal	Lisp Accent Stutter Deep Clearing Throa	DisguisedFamiliar? Who did it sound like?Deep Breathing at				
BACKGROUN	ID SOUNDS:							
Street     Noises    Voices    Office	House Noises Motor Clear	Factory Machinery Animals Other	Music Static PA System	Local CallLong DistancePhone Booth				
THREAT LAN	GUAGE:							
	enFoul Read by Threat Maker	Incoherent	Irrational	Taped				
REMARKS:								

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#### NATURAL DISASTERS

#### **Tornadoes**

These general procedures should be followed by everyone seeking shelter from a severe storm or tornado:

#### Indoors:

- 1. Protect yourself from flying glass and debris.
- 2. Take refuge near the core of the building for maximum protection.
- 3. Do not smoke while taking shelter.
- 4. Shut all doors to offices, if time permits.

#### In the field:

- 1. Seek cover in a low-lying area, such as a culvert, ditch, pit, or water injection valve box.
- 2. Get out of and away from your vehicle.
- 3. Stay away from power lines.
- 4. Cover your head with your arms and clothing.

#### **Thunderstorms**

#### Indoors:

- 1. Avoid water pipes, sinks, showers, tubs, etc.
- 2. Stay away from doors and windows.
- 3. Do not use the telephone.
- 4. Take off head sets.
- 5. Turn off, unplug, and stay away from appliances, computers, power tools, & TV sets.

#### In the field:

- 1. Avoid water.
- 2. Avoid high ground and open spaces.
- 3. Avoid all metal objects including electric wires, fences, machinery, motors, power tools, etc. <u>Unsafe places</u> include underneath canopies, small picnic or rain shelters, or near trees. Where possible, find shelter in a substantial building or in a fully enclosed metal vehicle such as a car, truck or a van with the windows completely shut. If lightning is striking nearby when you are outside, you should:
  - a. Crouch down, feet together, hands over ears
  - b. Avoid proximity (minimum of 15 ft.) to other people.
- 4. SUSPEND ACTIVITIES for 30 minutes after the last observed lightning or thunder.

## **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.

# **Drilling Dept. Emergency Contact list**

**Drilling Manager** 

**Bob Joseph** 

713-366-5798 office

661-333-7356 cell

home

**Drilling Superintendent** 

Festus Hagan

713-366-5946 office

432-894-5352 cell

home

Drilling Eng. Supervisor Richard Jackson 432-685-5877 office

432-894-7867 cell

432-689-0804 home

HES Specialist-Drilling Allan Wells

432-685-5723 office

432-894-1011 cell

432-695-4352 home

**Drilling Coordinator** 

**Drue Dunaway 432-685-5715 office** 

432-556-3288 cell

432-524-2161 home

**Drilling Coordinator** 

Kevin Videtich 806-592-6213 office

806-891-2000 cell

806-894-2242 home

# OXY Permian Incident Reporting Phone List

# OXY Permian Crisis Team Hotline Notification

(713) 935-7210

Person	Location	Office Phone	Cell/Mobile Phone
Accet Management Operations Avens			,
Asset Management-Operations Areas  OXY Permian President & General Manager:	T		T
Ken Dillon	Houston	(713) 366-5140	(661) 333-9315
Operations Support Manager: Rick Callahan	Houston	(713)-215-7578	(281) 389-1141
Asset Development Manager-Jeff Simmons	Houston	(713) 366-5124	(713) 560-8073
Public Affairs: Stacey Crews	Houston	(713) 366-5304	(713) 416-8381
Operations South-Frontier			
RMT Lead Frontier-Kris Raghavan	Houston	(713) 366-5018	(281) 415-8387
RMT Lead South-Keith Brown	Houston	(713) 366-5354	(713) 264-1114
Surface Operations Team Lead-Bill Elliott	Midland	(432) 685-5845	(432) 557-6736
Well Operations Team Lead-Leamon Hood	Midland	(432) 685-5794	(432) 634-4486
Well Servicing Team Lead-Vicki Hollub	Houston	(713) 215-7332	(713) 885-6347
WST Coord Frontier-Kirk Hobbs	Midland	(432) 685-5951	(432) 634-3890
WST Coord South-Robert Ricks	Midland	(432) 685-5821	(432) 634-8791
NM Frontier Oper Coord -Larry Sammons	Carlsbad	(505) 887-8337	
NM-South Oper Coord-James Bruton	Seminole	(432) 385-2778	(432) 634-6152
Completion Specialist-Van Barton	Carlsbad	(505) 887-8337	
Completion Specialist-Dale Redding	Hobbs	(432) 385-3206	
HES Staff & Areas of First Contact Support			
HES Manager: John Kirby	Houston	(713) 366-5460	(281) 974-9523
Environmental Engineer, Air: Peggy Waisanen	Midland	(432) 685-5673	· (432) 894-1968
Administrative Assistant: Judy Browning	Midland	(432) 685 5692	(432) 661 1048
Environmental Consultant: Dennis Newman	Houston	(713) 366-5485	(713) 560-8060
Safety Engineer: Derek Purvis	Houston	(713) 366-5932	(713) 582-1848
Pipeline Safety: Don Bales	Midland	(432) 685-5844	(432) 894-1960
HES Lead-Pete Maciula	Midland	(432) 685-5667	(432) 557-2450
HES Specialist: Eddie Gonzales	Midland	(432) 685-5929	(432) 556-6790
HES Specialist-Drilling: Allan Wells	Midland	(432) 685-5723	(432) 894-1011
HES Tech & Area of Responsibility			
Wasson San Andres RMT: Mark Andersen	Denver City	(806) 592-6299	(806) 215-0077
Hobbs RMT: Steve Bishop	Hobbs	(505) 397-8251	(505) 390-4784
Frontier-New Mexico: Rick Kerby	Carlsbad	(505) 887-8337	(505) 631-4972
South-New Mexico-Tony Summers	Hobbs	(505) 397-8236	(505) 390-9228
Regulatory Affairs			
Lead-Liz Bush-Ivie	Houston	(713) 366-5303	832-474-3701

Regulatory Analyst-David Stewart	Midland	(432) 685-5717	
Regulatory Analyst-Elizabeth Casbeer	Midland	(432) 685-5755	
Regulatory Analyst-Mark Stephens	Houston	(713) 366-5158	
DOT-Pipeline Response Numbers			
N. Hobbs Unit: Steve Bishop	Hobbs	(505) 397-8251	(505) 390-4784
Wasson PMT: Todd King	Denver City	(806) 592-6274	(806) 215-0183
Bravo/Slaughter PMT: Gary Polk	Levelland	(806) 229-9708	(806) 638-2425
Cogdell RMT: Dean Peevy	Cogdell	(325) 573-7272	(325) 207-3367
Sharon Ridge: Carl Morales	Sharon Ridge	(325) 573-6341	(325) 207-3374
All DOT Pipeline Support: Donald Bales	Midland	(432) 685-5844	(432) 894-1960
OOGC HES Contacts			
Manager HES: Wes Scott	OOGC – Houston	(713) 215-7171	(713) 203-4050
Worldwide Safety Mgr: Greg Hardin alternate	OOGC - Houston	(713) 366-5324	(713) 560-8037
Worldwide Environ. Mgr: Ravi Ravishankar	OOGC - Houston	(713) 366-5039	(832) 863-2240
Worldwide Environ. Mgr. Ravi Ravisharka	Tode Housian	(113) 300-3037	(632) 603-2240
OOGC Risk Management	T an Augusta	(210) 442 (500	(210) 710 2222
Jim Garrett	Los Angeles	(310) 443-6588	(310) 710-3233
Greg LaSalle, alternate	Los Angeles	(310) 443-6542	(310) 710-2255
OSI			
Workers Comp. Claim Manager: Steve Jones	Dallas	(972) 404-3542	
Workers Comp. Claims: Mark Ryan	Dallas	(972) 404-3974	
Auto Claims: Steve Jones	Dallas	(972) 404-3542	
Gallagher Bassett			
Workers Comp. & Property Damage Claims-		(972) 728-3600	
OXY Permian Ltd.: Danny Ross		X252	(800) 349-8492
Axiom Medical Consulting			
Medical Case Management		(877) 502-9466	
OXY Permian Legal			
Tom Janiszewski	Houston	(713) 366-5529	(713) 560-8049
	1	1 (7.5) 500-5527	(/13/300-004)
Human Resources	T		
H.R. Manager: Barbara Bernhard	Houston	(713) 215-7150	(713) 702-7949
H.R. Consultant: Amy Thompson	Houston	(713) 215-7863	(281) 799-7348
H.R. Consultant: Laura Matthews	Houston ·	(713) 366-5137	(713) 569-0386
H.R. Consultant: Jill Williams	Midland	(432) 685-5818	(432) 661-4581
Corporate Security			
Frank Zapalac	Houston	(713) 215-7157	(713) 829-5753
Hugh Moreno, alternate	Houston	(713) 215-7162	(713) 817-3322

# **Regulatory Agencies**

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Bureau of Land Management	Carlsbad, NM	(505) 887-6544
Bureau of Land Management	Hobbs, NM	(505) 393-3612
Bureau of Land Management	Roswell, NM	(505) 393-3612
Bureau of Land Management	Santa Fe, NM	(505) 988-6030
DOT Jurisdictional Pipelines-Incident		
Reporting New Mexico Public Regulation		(505) 827-3549
Commission	Santa Fe, NM	(505) 490-2375
DOT Jurisdictional Pipelines-Incident		
Reporting Texas Railroad Commission	Austin, TX	(512) 463-6788
EPA Hot Line	Dallas, Texas	(214) 665-6444
Federal OSHA, Area Office	Lubbock, Texas	(806) 472-7681
National Response Center	Washington, D. C.	(800) 424-8802
National Infrastructure Coordinator Center		(202) 282-9201
New Mexico Air Quality Bureau	Santa Fe, NM	(505) 827-1494
New Mexico Oil Conservation Division	Artesia, NM	(505) 748-1283
New Mexico Oil Conservation Division	Hobbs, NM	(505) 393-6161
New Mexico Oil Conservation Division	Santa Fe, NM	(505) 471-1068
		(505) 827-7152
New Mexico OCD Environmental Bureau	Santa Fe, NM	(505) 476-3470
New Mexico Environmental Department	Hobbs, NM	(505) 827-9329
NM State Emergency Response Center	Santa Fe, NM	(505) 827-9222
	District 8, 8A Midland,	
Railroad Commission of TX	TX	(432) 684-5581
Texas Emergency Response Center	Austin, TX	(512) 463-7727
TCEQ Air	Region 2 Lubbock, TX	(806) 796-3494
TCEQ Water/Waste/Air	Region 7 Midland, TX	(432) 570-1359

# **Medical Facilities**

Artesia General Hospital	Artesia, NM	(505) 748-3333	
Guadalupe Medical Center	Carlsbad, NM	(505) 887-6633	
Lea Regional Hospital	Hobbs, NM	(505) 492-5000	
Medical Arts Hospital	Lamesa, TX	(806) 872-2183	
Medical Center Hospital	Odessa, TX	(432) 640-4000	
Memorial Hospital	Seminole, TX	(432) 758-5811	•
Midland Memorial Hospital	Midland, TX	(432) 685-1111	
Nor-Lea General Hospital	Lovington, NM	(505) 396-6611	ALIA C
Odessa Regional Hospital	Odessa, TX	(432) 334-8200	
St. Mary's Hospital	Lubbock, TX	(806) 796-6000	
Union County General Hospital	Clayton, NM	(505) 374-2585	
University Medical Center	Lubbock, TX	(806) 743-3111	

Local Emergency Planning Comm.

Richard H. Dolgener	Andrews County, TX	(432) 524-1401	
Joel Arnwine	Eddy County, NM	(505) 887-9511	
County Judge Judy House	Gaines County, TX	(432) 758-5411	
Myra Sande	Harding County, NM	(505) 673-2231	
Jerry Reynolds	Lea County, NM	(505) 396-8600	(505) 399-2376

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Royce Creager	Loving County, TX	(432) 377-2231	
Mike Cherry	Quay County, NM	(505) 461-2476	
Della Wetsel	Union County, NM	(505) 374-8896	
Bonnie Leck	Winkler County, TX	(432) 586-6658	
Carl Whitaker	Yoakum County, TX	(806) 456-7491	
Law Enforcement - Sheriff			
Andrews Cty Sheriff's Department	Andrews County	(432) 523-5545	
Eddy Cty Sheriff's Department	Eddy County (Artesia)	(505) 746-2704	
Eddy Cty Sheriff's Department	Eddy County (Carlsbad)	(505) 887-7551	
Gaines Cty Sheriff's Department	Gaines County (Seminole)	(432) 758-9871	
Lea Cty Sheriff's Department	Lea County (Eunice)	(505) 384-2020	
Lea Cty Sheriff's Department	Lea County (Hobbs)	(505) 393-2515	
Lea Cty Sheriff's Department	Lea County (Lovington)	(505) 396-3611	
Union Cty Sheriff's Department	Union County (Clayton)	(505) 374-2583	
Yoakum City Sheriff's Department	Yoakum Co.	(806) 456-2377	
Law Enforcement - Police			
Andrews City Police	Andrews, TX	(432) 523-5675	
Artesia City Police	Artesia, NM	(505) 746-2704	· · · · · · · · · · · · · · · · · · ·
Carlsbad City Police	Carlsbad, NM	(505) 885-2111	
Clayton City Police	Clayton, NM	(505) 374-2504	
Denver City Police	Denver City, TX	(806) 592-3516	<del></del>
Eunice City Police	Eunice, NM	(505) 394-2112	
Hobbs City Police	Hobbs, NM	(505) 397-9265 (505) 393-2677	
Jal City Police	Jal, NM	(505) 395-2501	
Lovington City Police	Lovington, NM	(505) 396-2811	
Seminole City Police	Seminole, TX	(432) 758-9871	
-			
Law Enforcement - FBI	· · · · · · · · · · · · · · · · · · ·		
FBI	Alburqueque, NM	(505) 224-2000	
FBI	Midland, TX	(432) 570-0255	
I D.C. I DDG			
Law Enforcement - DPS	1 226	(505) 54( 2504	
NM State Police	Artesia, NM	(505) 746-2704	
NM State Police	Carlsbad, NM	(505) 885-3137	
NM State Police	Eunice, NM	(505) 392-5588	
NM State Police	Hobbs, NM	(505) 392-5588	
NM State Police	Clayton, NM	(505) 374-2473; 911	
TX Dept of Public Safety	Andrews, TX	(432) 524-1443	
TX Dept of Public Safety	Seminole, TX	(432) 758-4041	
TX Dept of Public Safety	Yoakum County TX	(806) 456-2377	
Firefighting & Rescue			
Amistad/Rosebud	Amistad/Rosebud, NM	(505) 633-9113	
Annatau/Noscoud	Allistad/Rosebud, Nivi	(303) 033-7113	

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		(432) 523-4820
Andrews	Andrews, TX	(432) 523-3111
Artesia	Artesia, NM	(505) 746-5051
Carlsbad	Carlsbad, NM	(505) 885-3125
Clayton	Clayton, NM	(505) 374-2435
Denver City	Denver City, TX	(806) 592-5426
Eunice	Eunice, NM	(505) 394-2111
Hobbs	Hobbs, NM	(505) 397-9308
Jal	Jal, NM	(505) 395-2221
Kermit	Kermit, TX	(432) 586-3468
Lovington	Lovington, NM	(505) 396-2359
Maljamar	Maljamar, NM	(505) 676-4100
Monahans	Monahans, TX	(432) 943-4343
Nara Visa	Nara Visa, NM	(505) 461-3300
Pecos	Pecos, TX	(432) 445-2421
Seminole	Seminole, TX	(432) 758-3676 (432) 758-9871

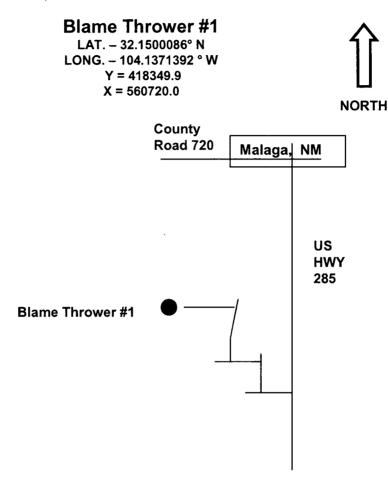
# Ambulance

Amistad/Rosebud	Amistad/Rosebud, NM	(505) 633-9113	
Andrews Ambulance	Andrews, TX	(432) 523-5675	
Artesia Ambulance	Artesia, NM	(505) 746-2701	
Carlsbad Ambulance	Carlsbad, NM	(505) 885-2111; 911	
Clayton, NM	Clayton, NM	(505) 374-2501	
Denver City Ambulance	Denver City, TX	(806) 592-3516	
Eunice Ambulance	Eunice, NM	(505) 394-3258	
Hobbs, NM	Hobbs, NM	(505) 397-9308	
Jal, NM	Jal, NM	(505) 395-2501	
Lovington Ambulance	Lovington, NM	(505) 396-2811	
Nara Visa, NM	Nara Visa, NM	(505) 461-3300	.,
Pecos Ambulance	Pecos, TX	(432) 445-4444	
Seminole Ambulance	Seminole, TX	(432) 758-8816 (432) 758-9871	

# Medical Air Ambulance Service

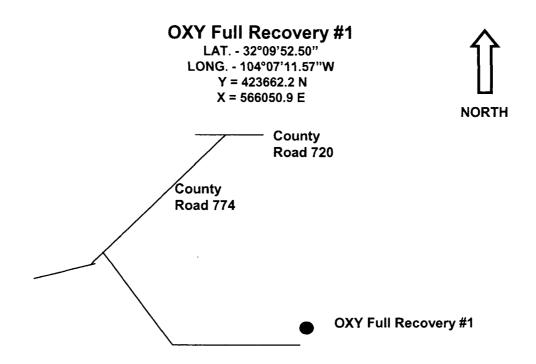
AEROCARE - Methodist Hospital	Lubbock, TX	(800) 627-2376	
San Angelo Med-Vac Air Ambulance	San Angelo, TX	(800) 277-4354	
Southwest Air Ambulance Service	Stanford, TX	(800) 242-6199	
Southwest MediVac	Snyder, TX	(800) 242-6199	
Southwest MediVac	Hobbs, NM	(800) 242-6199	
Odessa Care Star	Odessa, TX	(888) 624-3571	
NWTH Medivac	Amarillo, TX	(800) 692-1331	

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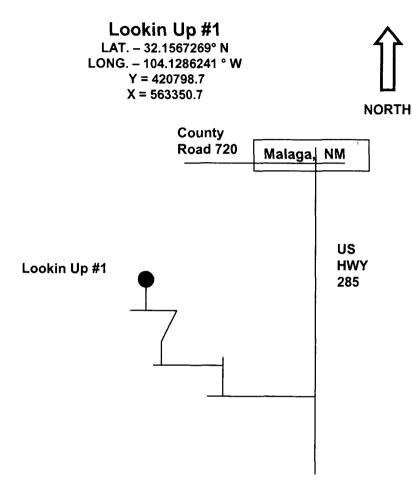
**DIRECTIONS TO LOCATION:** Beginning in Malaga, NM at the intersection of CR 720 and US Highway 285 go south on US HWY 285 for approximately 7.2 miles, turn right on lease road and go west 1.8 miles, turn north for 1.0 miles, turn west for 1.3 miles, turn north for 0.4 miles, turn northeast 0.7 miles, turn west for 0.7 miles to proposed new road, go west for 0.5 miles to location.

02/21/2008



**DIRECTIONS TO LOCATION:** From the intersection of CR 720 and CR 774, go southwest on CR 774 for approximately 4.0 miles to a proposed road survey. Follow proposed road survey approx. 9132' southeast/east to this location.

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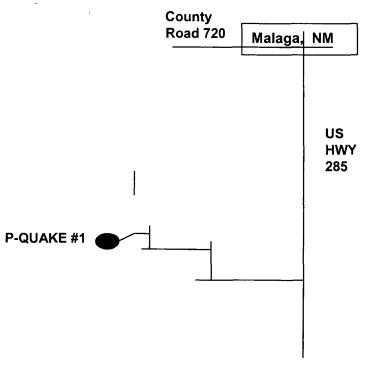
**DIRECTIONS TO LOCATION:** Beginning in Malaga, NM at the intersection of CR 720 and US Highway 285 go south on US HWY 285 for approximately 7.2 miles, turn right on lease road and go west 1.8 miles, turn north for 1.0 miles, turn west for 1.3 miles, turn north for 0.4 miles, turn northeast 0.7 miles, turn west for 0.6 miles to proposed new road, go west for 0.5 miles to location.

02/21/2008

# P-QUAKE #1

LAT. – 32.1354053° N LONG. – 104.1370783° W Y = 413037.8 X = 560748.5





**DIRECTIONS TO LOCATION:** Beginning in Malaga, NM at the intersection of CR 720 and US Highway 285 go south on US HWY 285 for approximately 7.2 miles, turn right on lease road and go west 1.8 miles, turn north for 1.0 miles, turn west for 1.3 miles, turn north for 0.1 miles to proposed new road for , turn west along proposed new road for 0.4 miles, turn southwest for .0.3 miles to location.

02/21/2008