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-101
March 4, 2004

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1 Operator Name and Address	2 OGRID Number
POGO PRODUCING COMPANY P.O. BOX 10340 MIDLAND, TEXAS 79702-7340	17891
	3 API Number 30 - 015 - 33821

3 Property Code	5 Property Name	6 Well No.
	HARROUN "22"	3

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	22	24-S	29-E		660'	NORTH	330'	EAST	EDDY.

8 Proposed Bottom Hole Location If Different From Surface

B

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
~~A~~	22	24-S	29-E		660'	NORTH	2310'	EAST	EDDY

9 Proposed Pool 1	10 Proposed Pool 2
PIERCE CROSSING-BONE SPRING EAST (96473)	

Drilling Pit Location and Other Information

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	22	24-S	29-E		660'	NORTH	330'	EAST	EDDY CO.

Depth to ground water	Distance from nearest fresh water well	Distance from nearest surface water
18' ?	2 miles	1 mile Pecos River

11 Work Type Code	12 Well Type Code	13 Cable/Rotary	14 Lease Type Code	15 Ground Level Elevation
N	O	ROTARY	P	2941'

16 Multiple	17 Proposed Depth	18 Formation	19 Contractor	20 Spud Date
NO	TVD 8200' MD9500'	BONE SPRING	CAPSTAR	WHEN APPROVED

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
25"	20"	Conductor	40'	Redi-mix	surface
17½"	13 3/8"	48#	~~350'~~ 500'	650 Sx.	Surface
11"	8 5/8"	32 & 24#	2900'	1000 Sx.	Surface
7 7/8"	5½"	17#	9500' MD	1500 Sx.	2000'± FS

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 ATTACHED SHEET

RECEIVED
DEC 28 2004
OCD-ARTESIA

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 ☐.

Signature: Joe T. Janica

Printed name: Joe T. Janica

Title: Agent

E-mail Address:

Date: 12/27/04

Phone: 505-391-8503

OIL CONSERVATION DIVISION

Approved by: TIM W. GUM
DISTRICT II SUPERVISOR

Title:

Approval Date: JAN 05 2005 Expiration Date: JAN 05 2006

Conditions of Approval:
Attached ☐

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

2. Drill 17½" hole to ~~550~~ 500'. Run and set ~~550~~ of 13 3/8" 48# H-40 ST&C casing. Cement with 650 Sx. of Class "C" cement + ¼# Flocele/Sx. and 2%CaCl, circulate cement to surface.

3. Drill 11" hole to 2900'. Run and set 2900' of 8 5/8" casing as follows: 700' of 8 5/8" 32# J-55 ST&C, 1200' of 8 5/8" 24# J-55 ST&C, 1000' of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of Class "C" + additives, circulate cement to surface.

4. Drill 7 7/8" hole to 8200'. Run Gyro, and open hole logs. Plug back for kick off point at 7250'. Drill curve and lateral to BOTTOM HOLE LOCATION to a measured depth of 9500'±. BHL 1980' FSL & 2310' FWL SECTION 15. Run and set 5½" casing as follows: 2500'± of 5½" 17# N-80 BTC, 7000' of 5½" 17# N-80 LT&C. Cement with 1500 Sx. of Class "C" cement + additives, estimate top of cement 2000' From Surface.

1. Drill surface hole to 550' with fresh water Spud mud.

2. Drill intermediate hole with Brine water to 2900'.

3. Drill production hole with fresh water base mud use paper to control seepage, and high viscosity sweeps to clean hole.

DISTRICT I
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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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	Pool Code	Pool Name
	96473	PIERCE CROSSING BONE SPRING EAST

Property Code	Property Name	Well Number
	HARROUN 22	3

OGRID No.	Operator Name	Elevation
17891	POGO PRODUCING COMPANY	2941'

Surface Location

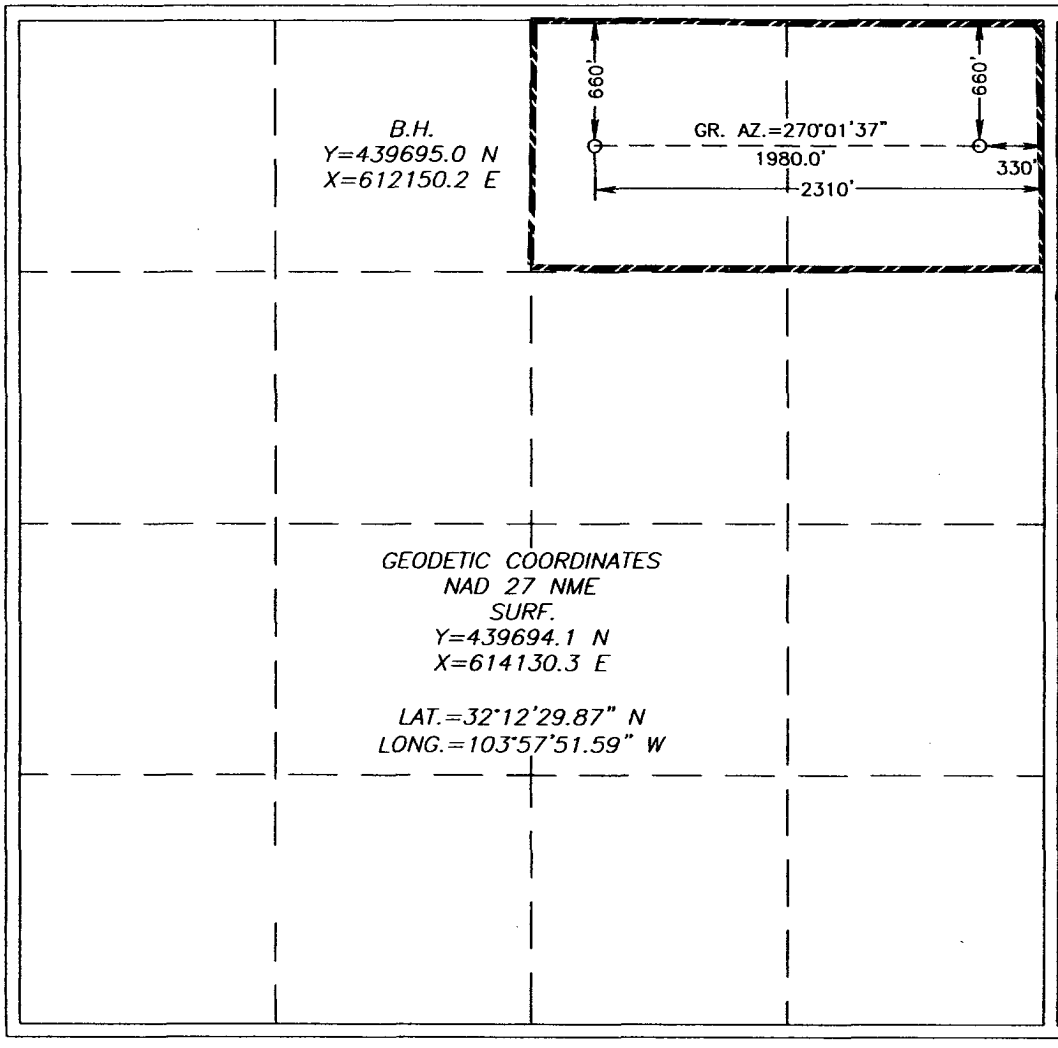
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	22	24-S	29-E		660	NORTH	330	EAST	EDDY

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
B	22	24-S	29-E		660	NORTH	2310	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

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.

Signature: Janica T. Janica

Printed Name: Janica T. Janica

Title: Agent

Date: 12/27/04

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 supervison, and that the same is true and correct to the best of my belief.

Date Surveyed: DECEMBER 2, 2004 JR

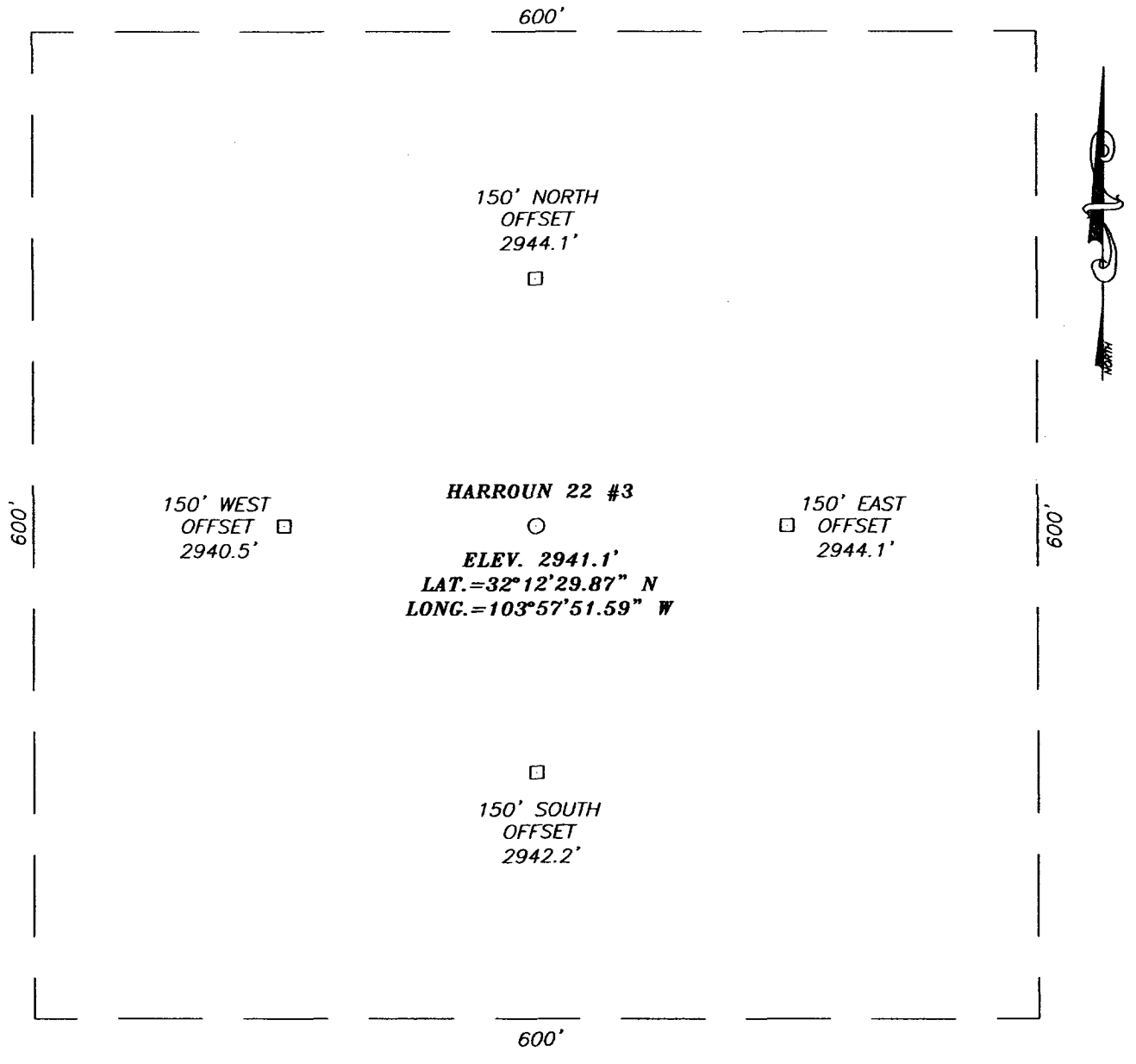
Signature & Seal of Professional Surveyor: GARY L. EDSON, NEW MEXICO, 04.11.1584, REGISTERED PROFESSIONAL SURVEYOR

Gary L. Edson 12/09/04

Certificate No. GARY EDSON 12641

SECTION 22, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION CO . RD. #745 (HARROUN RD.) AND CO. RD. #788 (DOG TOWN RD.) GO SE ON CO. RD. #788 FOR APPROX. 1.3 MILES TO A ROAD ON THE LEFT. TURN LEFT (EAST) AND FOLLOW MEANDERING ROAD FOR APPROX. 0.1 MILES TO A "Y". TAKE LEFT FORK AND FOLLOW ROAD FOR APPROX. 2.4 MILES TO A "Y". TAKE RIGHT FORK AND GO WEST FOR APPROX. 0.7 MILES TO THE RIVERBEND FED. #8 PAD. PROPOSED LOCATION IS APPROX. 200' WEST FROM SW CORNER OF PAD.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

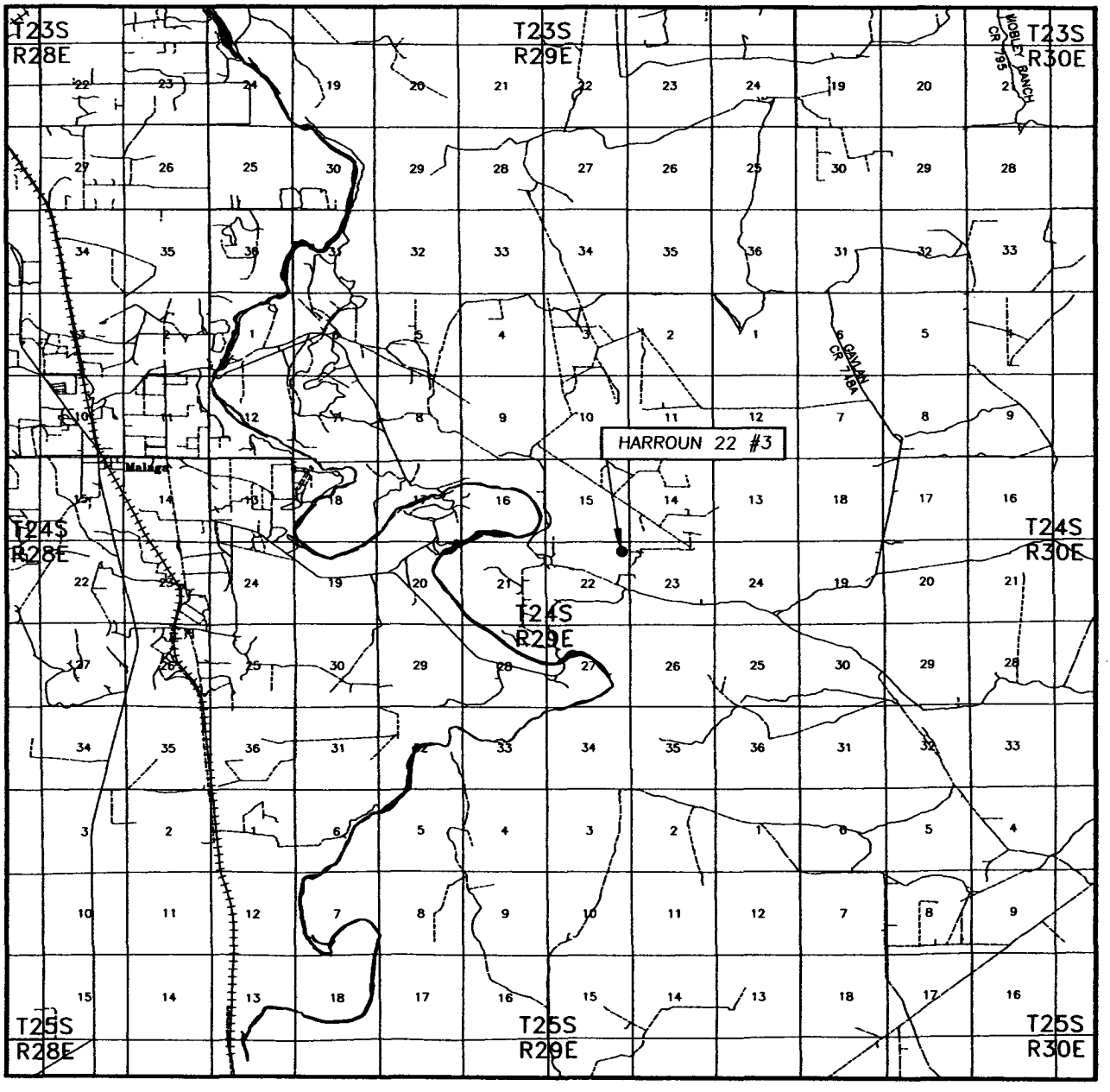
(505) 393-3117

POGO PRODUCING COMPANY

HARROUN 22 #3 WELL
LOCATED 660 FEET FROM THE NORTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 22,
TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 12/2/04	Sheet 1 of 1 Sheets		
W.O. Number: 04.11.1584	Dr By: J.R.	Rev 1:N/A	
Date: 12/7/04	Disk: CD#10	04111584	Scale:1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 22 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 330' FEL

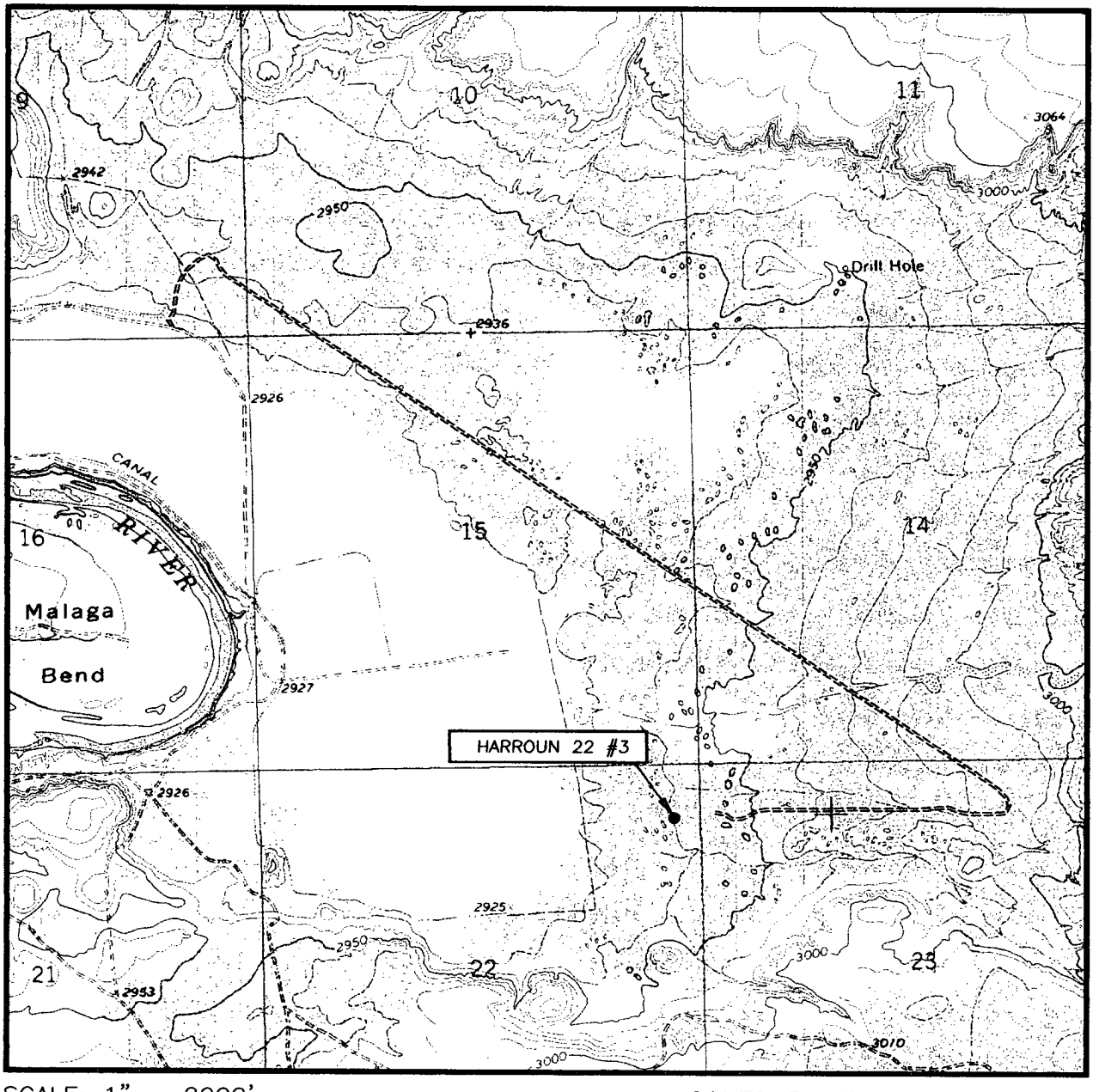
ELEVATION 2941'

OPERATOR POGO PRODUCING COMPANY

LEASE HARROUN 22

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PIERCE CANYON, N.M. – 10'

SEC. 22 TWP. 24–S RGE. 29–E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 330' FEL

ELEVATION 2941'

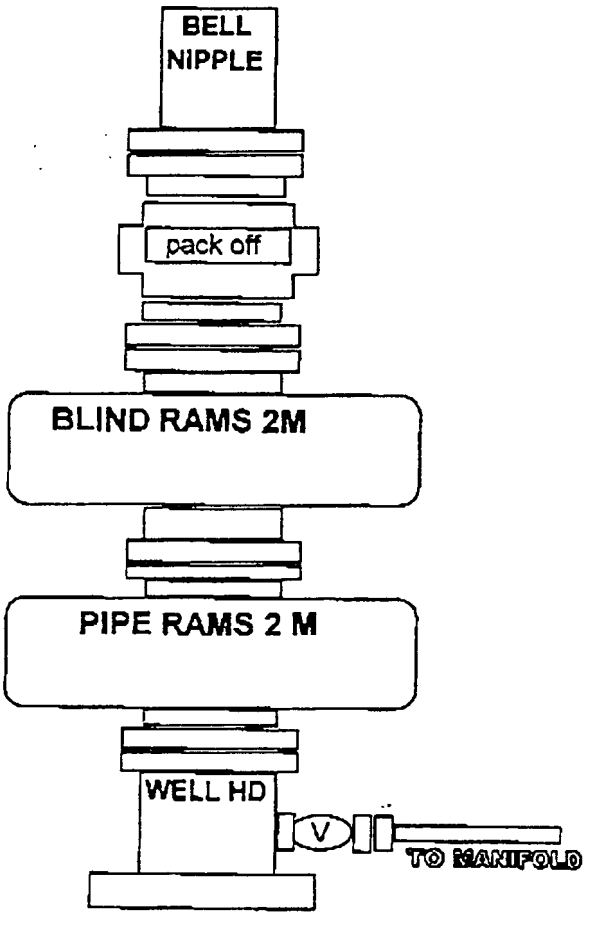
OPERATOR POGO PRODUCING COMPANY

LEASE HARROUN 22

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.

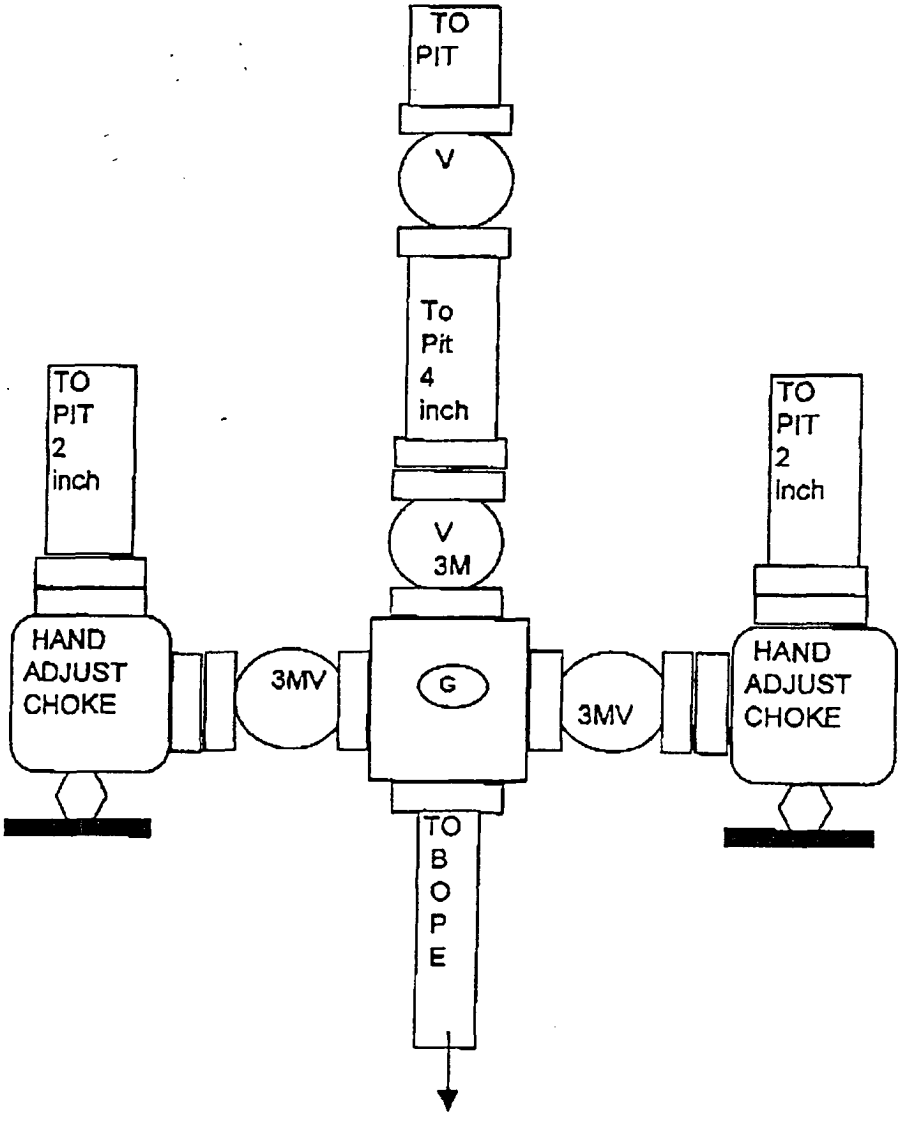
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

11" 2M


BELL
NIPPLE
pack off
BLIND RAMS 2M
PIPE RAMS 2 M
WELL HD
V
TO MANIFOLD

CHOKE MANIFOLD

3000 PSI WP



HARROUN 22 # 3

AFE HARROUN 15 bone Horizontal.xls MITCHELL ENGINEERING PROGRAMS

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

0	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

DISTANCE TABLE

STATION A	STATION B
3 D DISTANCE BETWEEN STATION A AND STATION B: 0.00	ft
Calculator =	

TABLE OF SURVEY STATIONS

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	7253.00	7253.00	0.00	0.00	-
2	100	12	270	7353.00	7352.27	0.00	-10.43	12.00
3	100	24	270	7453.00	7447.20	0.00	-41.26	12.00
4	100	36	270	7553.00	7533.65	0.00	-91.19	12.00
5	100	48	270	7653.00	7607.83	0.00	-157.98	12.00
6	100	60	270	7753.00	7666.50	0.00	-238.73	12.00
7	100	72	270	7853.00	7707.10	0.00	-329.92	12.00
8	100	84	270	7953.00	7727.85	0.00	-427.55	12.00
9	50	90	270	8003.00	7730.46	0.00	-477.46	12.00
10	100	90	270	8103.00	7730.46	0.00	-577.46	0.00
11	100	90	270	8203.00	7730.46	0.00	-677.46	0.00
12	100	90	270	8303.00	7730.46	0.00	-777.46	0.00
13	100	90	270	8403.00	7730.46	0.00	-877.46	0.00
14	100	90	270	8503.00	7730.46	0.00	-977.46	0.00
15	100	90	270	8603.00	7730.46	0.00	-1077.46	0.00
16	100	90	270	8703.00	7730.46	0.00	-1177.46	0.00
17	100	90	270	8803.00	7730.46	0.00	-1277.46	0.00
18	100	90	270	8903.00	7730.46	0.00	-1377.46	0.00
19	100	90	270	9003.00	7730.46	0.00	-1477.46	0.00
20	100	90	270	9103.00	7730.46	0.00	-1577.46	0.00
21	100	90	270	9203.00	7730.46	0.00	-1677.46	0.00
22	100	90	270	9303.00	7730.46	0.00	-1777.46	0.00
23	100	90	270	9403.00	7730.46	0.00	-1877.46	0.00
24	102	90	270	9505.00	7730.46	0.00	-1979.46	0.00
25								
26								
27								
28								
29								
30								
31								

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

APPLICABILITY:

The provisions of this plan are effective when drilling operations are conducted in areas where zones may be penetrated that are known to contain, or may be reasonably expected to contain, hydrogen sulfide gas in concentrations of 100 parts per million or more.

TRAINING REQUIREMENTS:

A. When conducting drilling operations in an area where hydrogen sulfide gas might be encountered, all personnel at the well site will have had proper training in the following areas:

1. The hazards and characteristics of hydrogen sulfide gas (H2S).

2. Toxicity of hydrogen sulfide and sulfur dioxide.

3. Hydrogen sulfide gas detectors, warning systems, evacuation procedures, and proper use and maintenance of personal protective equipment.

4. Proper rescue procedures, first aid, and artificial respiration.

B. In addition, supervisory personnel will be trained in the following areas:

1. The effects of hydrogen sulfide on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.

3. The contents and requirements of the Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan.

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

A. Attached is a detailed well site diagram showing:

- Drilling rig orientation
- Prevailing wind direction (Southwest)
- Location of briefing areas
- Location of Caution/Danger Signs
- Location of hydrogen sulfide monitors
- Location of wind direction Indicators

HYDROGEN SULFIDE SAFETY EQUIPMENT:

A. All safety equipment and systems will be installed, tested and deemed operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone reasonably expected to contain hydrogen sulfide.

B. During drilling operations, a flare line will be routed from the BOP manifold to the reserve pit. Should suspected sour gas be vented through the flair line, a flare pistol will be used to ignite the flare.

C. Protective equipment for essential personnel will be installed and maintained as follows:

1. 30-minute air packs will be maintained on the rig floor and near the briefing area.

2. 30-minute work units will be maintained at the H2S trailer and/or on the rig floor.

3. 30-minute escape units will be maintained on the rig floor.

4. 300 cu. ft. air cylinders will be maintained in the H2S trailer.

5. Associated breathing air equipment will also be installed and maintained.

6. Hydrogen sulfide monitor will be located in the doghouse on the rig floor with sensors placed on the rig floor, at the bell nipple, the shale shaker, and in the pit area.

7. An audible/visual alarm will be located near the doghouse on the rig floor.

VISUAL WARNING SYSTEMS:

A. High visibility Caution/Danger signs will be posted on roads providing direct access to the well location.

B. Green, yellow, and red condition flags to be displayed to denote Normal Conditions, Potential Danger, and Danger, H2S Present.

C. Wind socks to be located at the protection center and in the pit area to continuously indicate wind direction.

CIRCULATING MEDIUM:

A. Drilling fluid to be conditioned to minimize the volume of H2S circulated to the surface.

SPECIAL WELL CONTROL EQUIPMENT:

A. In addition to the normal BOP stack and choke manifold, a drilling head will be used to help control and H2S contaminated drilling.

WELL TESTING:

A. Drill stem testing of zones known, or reasonably expected, to contain hydrogen sulfide in concentrations of 100 pps or more will use the closed chamber method of testing.

COMMUNICATION:

A. Radio communication will be available at the drilling rig and also in company vehicles.

ADDITIONAL INFORMATION:

A. Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements, and Emergency Equipment Requirements will be available on location at the well site.

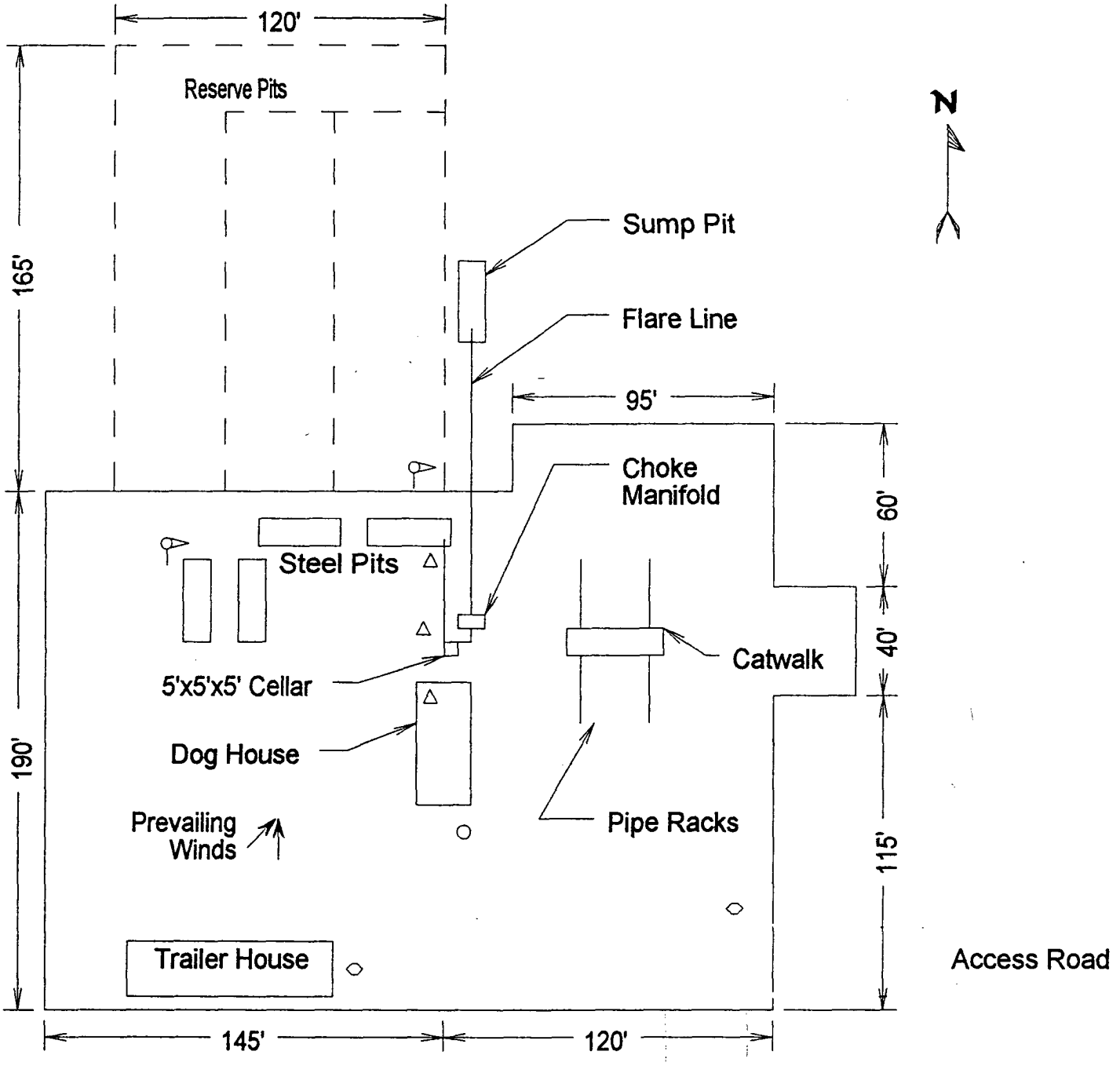
Pogo Producing Company

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.
EMERGENCY CALL LIST: (Start and continue until ONE of these people have been contacted)

	OFFICE	MOBILE	HOME
POGO Producing Co.	432 685 8100		
Richard Wright	432 685 8140	432 556 7595	432 699 7108
Barrett Smith	432 685 8141	432 425 0149	432 520 7337
Rex Jasper	432 685 8143	432 631 0127	432 694 1839
Donny Davis	pgr 432 563 6944	432 556 5927	432 570 9555
Jerry Cooper	432 685 8101		432 697 4629

EMERGENCY RESPONSE NUMBERS:

State Police:	Eddy County		505 748 9718
State Police:	Lea County		505 392 5588
Sheriff	Eddy County		505 746 2701
Sheriff	Lea County		
Emergency Medical Ser	Eddy County		911 or 505 746 2701
(Ambulance)	Lea County	Eunice	911 or 505 394 3258
Emergency Response	Eddy County SERC		505 476 9620
	Lea County		
Artesia Police Dept			505 746 5001



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- ◇ Briefing Areas
- ○ Remote BOP Closing Unit
- □ Sign and Condition Flags