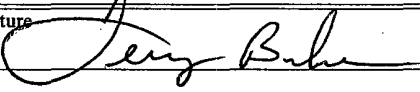


APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-17095	
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 Mewbourne Oil Company		7. If Unit or CA Agreement, Name and No.	
3a. Address P.O. Box 5270 Hobbs, NM 88241		8. Lease Name and Well No. Esperanza "1" Federal Com # 2	
3b. Phone No. (include area code) (505) 393-5805		9. API Well No. 30-015-33009	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FSL & 1550' FEL At proposed prod. zone (CO)		10. Field and Pool, or Exploratory Burton Flat Morrow	
14. Distance in miles and direction from nearest town or post office* 3 miles NE Carlsbad		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 1; T21S; R27E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. 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. 2080'		20. BLM/BIA Bond No. on file	
19. Proposed Depth 11,850'			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3192' GL		22. Approximate date work will start* August 24, 2003	
		23. Estimated duration 35 days	
24. Attachments CARLSBAD CONTROLLED WATER BASIN			

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed/Typed) Terry Burke	Date 07-23-03
Title Drilling Foreman		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 15 SEP 2003
Title ACTING 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

DISTRICT II

811 South First, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name Burton Flat Morrow
Property Code	Property Name ESPERANZA "1" FEDERAL COM.	Well Number 2
OGRID No. 14744	Operator Name MEWBOURNE OIL COMPANY	Elevation 3192

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	1	21S	27E		660	SOUTH	1550	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

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

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

LOT 12	LOT 11	LOT 10	LOT 9
LOT 13	LOT 14	LOT 15	LOT 16

Esperanza "1" Fed Com #1

N.32°30'14.0"
W.104°08'22.1"

Lease # NM-17095

1650'

3199 3196

1550'

3195 3197

8 1/2'

OPERATOR CERTIFICATION

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

Terry Burke
Signature

Terry Burke
Printed Name

Drilling Foreman
Title

July 23, 2003
Date

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.

7/15/2003
Date Surveyed

Signature & Seal of Professional Surveyor
Herschel Jones

HERSCHEL JONES
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
3640
Certificate No. Herschel Jones RLS 3640
ESPERANZA
GENERAL SURVEYING COMPANY

0 330' 660' 990' 1650' 1980' 2310' 2310' 1980' 1650' 990' 660' 330' 0'

Drilling Program
Mewbourne Oil Company
Esperanza "1" Federal Com # 2
660' FSL & 1550' FEL
Section 1 -T21S-R27E
Eddy County, New Mexico
Lease Number NM-17095

1. The estimated top of geological markers are as follows:

Delaware	2865'
Bone Springs	5,365'
Wolfcamp	9,200'
Strawn	10,300'
Atoka	10,900'
Morrow	11,300'
Barnett	11,850'

2. Estimated depths of anticipated fresh water, oil, or gas:

Water	Approximately 200'
Hydrocarbons	All zones below Wolfcamp

3. Pressure control equipment:

Two thousand psi working pressure annular BOP's will be installed on the 13-3/8" surface casing. Five thousand psi working pressure BOP's and two thousand psi working pressure Hydril will be installed on the 9-5/8" intermediate casing. Pressure tests with rig pump will be conducted prior to drilling out under all casing strings. A third party Safety Test Company will pressure test and record on chart the approved testing pressure of the BOP, Choke, Hydril, Kelly Cock Valves before we drill below the Bone Springs formation.

BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated daily to insure mechanical integrity and the inspection will be recorded on the daily drilling report.

Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use.

Drilling Program

Mewbourne Oil Company

Esperanza "1" Federal Com #42

Page 2

4. Proposed casing and cementing program:

A. Casing Program:

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>
17-1/2"	13-3/8"	48#	H40	0-400'
12-1/4"	9-5/8"	40#	N80/J55	0-2,600'
8-3/4"	5-1/2"	17#	P110/S95	0-11,850'

Minimum casing design factors: Collapse 1.2, Burst 1.1, Tensile strength 2.0.

B. Cementing Program

- WITNESS i. Surface Casing: 200 sacks Class "C" light cement containing .25 lbs/sack cellophane flakes, 2% CaCl, 6% bwoc Bentonite. 200 sacks Class "C" cement containing 2% CaCl.
- WITNESS ii. Intermediate Casing: 600 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack LCM-1. 200 sacks Class "C" cement containing 2% CaCl.
- iii. Production Casing: 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing and multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

**Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.*

5. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-400	FW spud mud	8.6-9.4	32-34	NA
400'-2600'	FW Brine Water	10.0-10.2	28-30	NA
2600'-9200'	Cut brine water	8.8-9.2	28-30	NA
9200'-11,850'	Cut brine water	9.2-10.0	32-42	8-12

(Note: Any Weight Above 8.6#/gallon would be to hold back Wolfcamp shale, rather than abnormal BHP in Morrow Formation)

Drilling Program

Mewbourne Oil Company

Esperanza "1" Federal Com #42

Page 3

6. Evaluation Program:

Samples:	10'samples from intermediate casing to TD
Logging:	Compensated density and dual laterlog from intermediate casing to TD
Coring:	As needed for evaluation
Drill Stem Tests:	As needed for evaluation

7. Downhole Conditions

Zones of abnormal pressure:	None anticipated
Zones of lost circulation:	Anticipated in surface and intermediate holes
Maximum bottom hole temperature:	180 degree F
Maximum bottom hole pressure:	8.3 lbs/gal gradient or less

8. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 45 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

Mewbourne Oil Company
BOP Schematic for
12 1/4" Hole

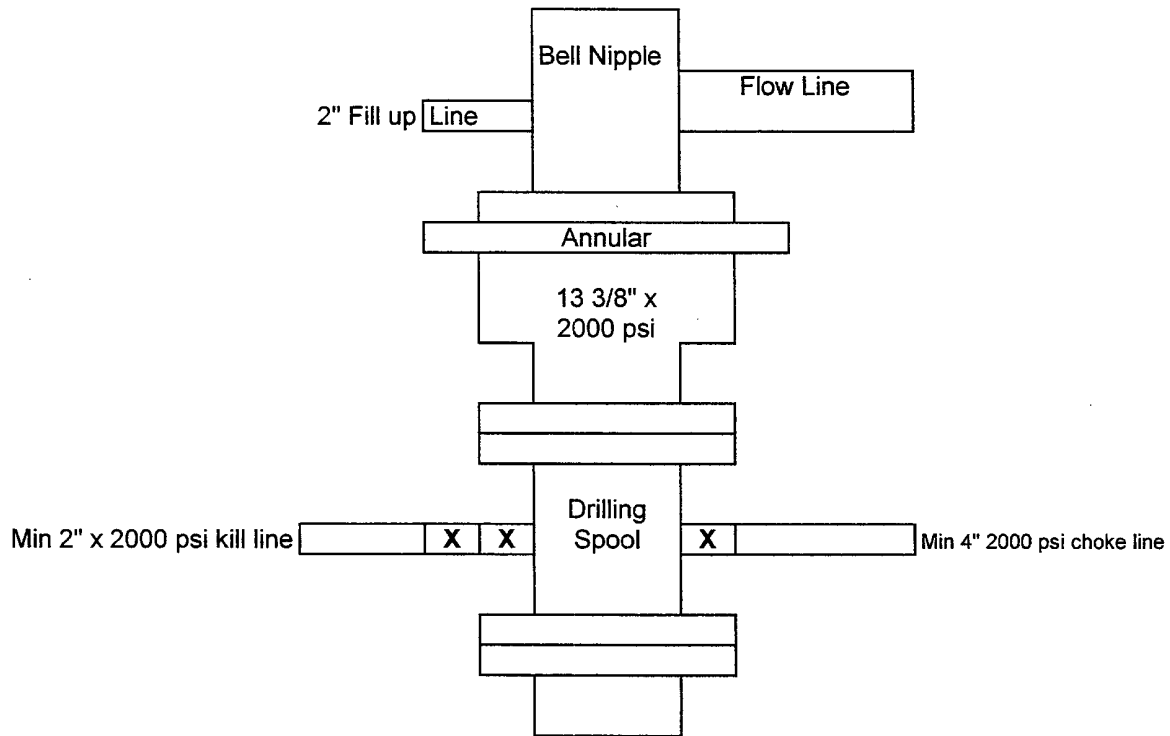


Exhibit #2

Esperanza "1" Fed Com # 2
660' FSL & 1550' FEL
Sec.1-21S; R27E
Eddy County, New Mexico

Mewbourne Oil Company

BOP Scematic for
8 3/4" or 7 7/8" Hole

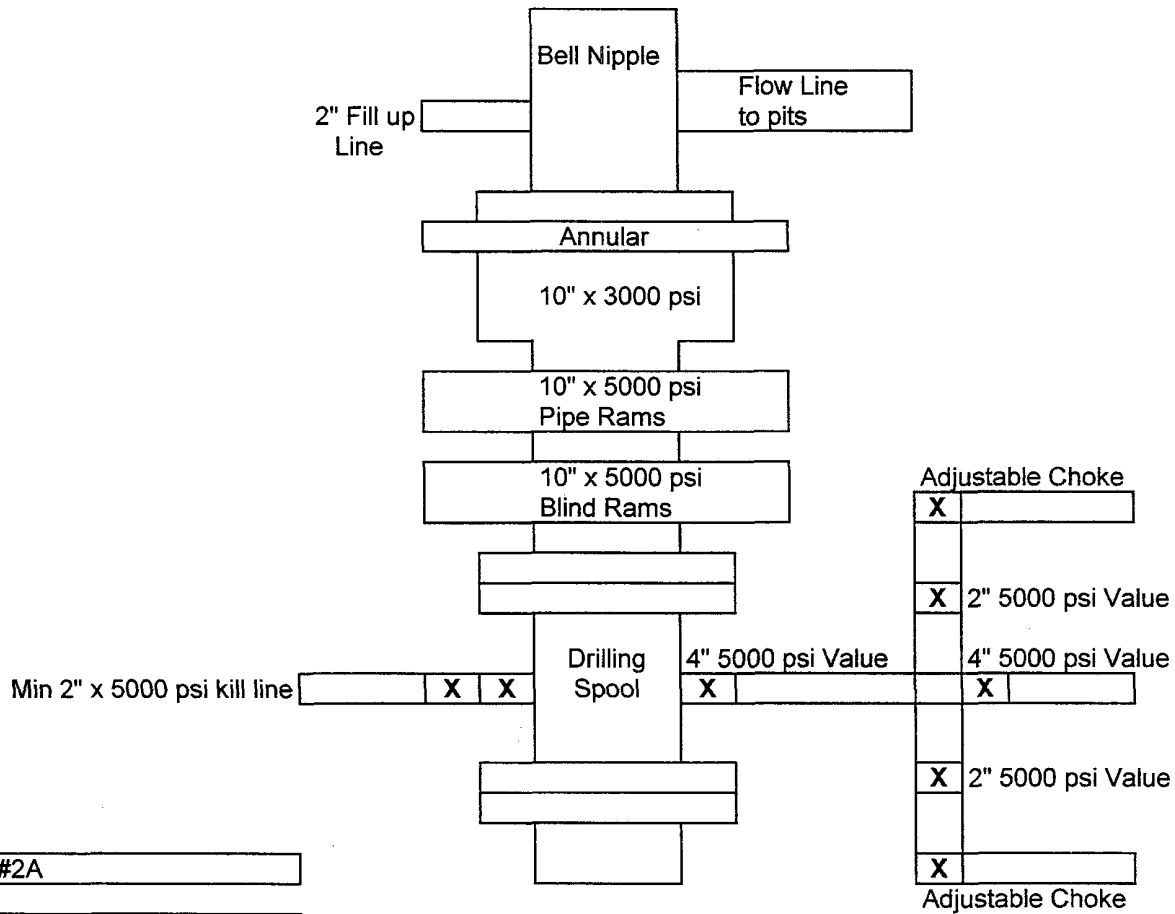


Exhibit #2A

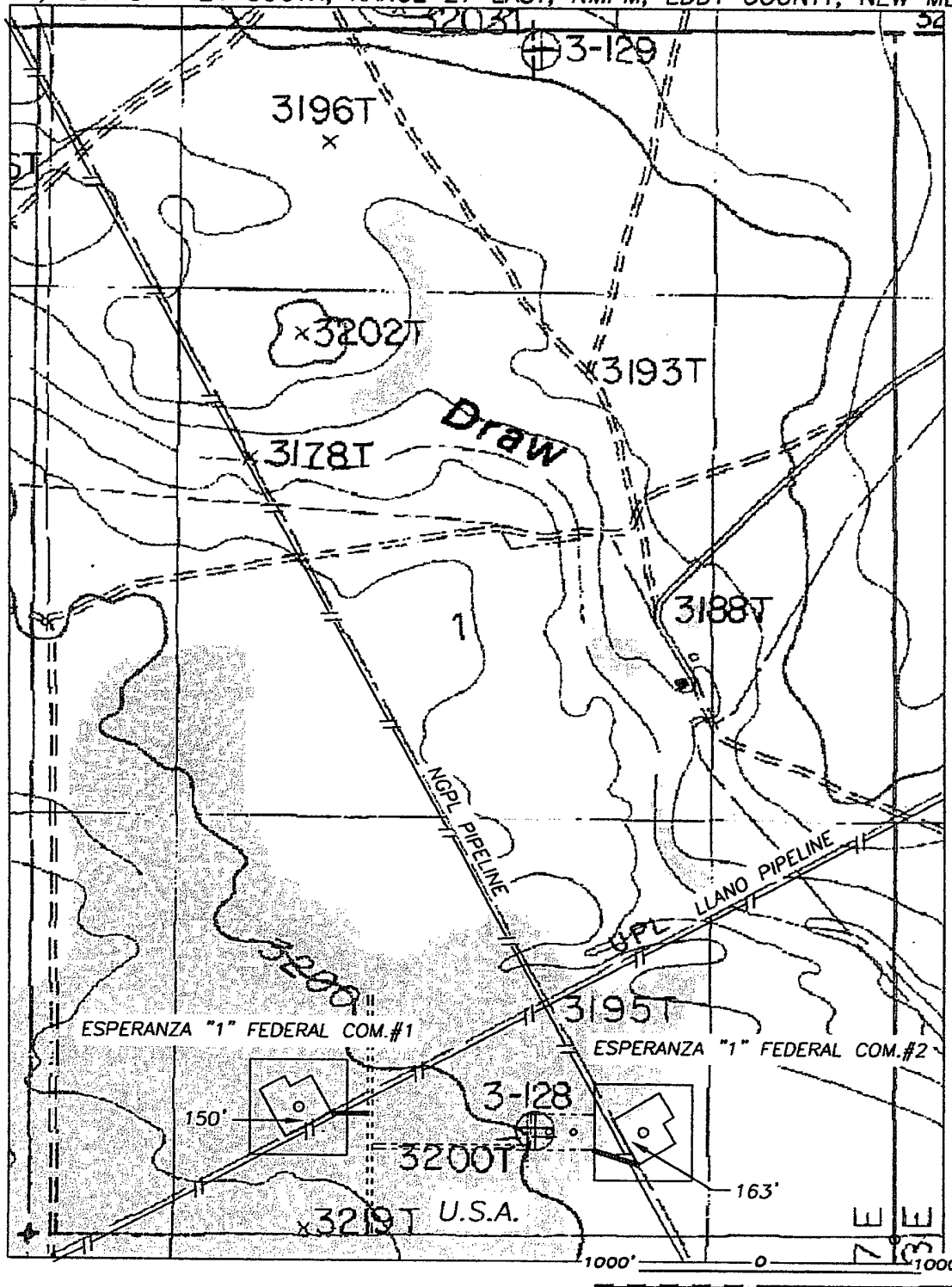
Esperanza "1" Fed Com # 2
660' FSL & 1550' FEL
Sec.1; T21S; R27E
Eddy County, New Mexico

Notes Regarding Blowout Preventer

Mewbourne Oil Company
Esperanza "1" Federal Com # 2
660' FSL & 1550' FEL
Section 1- T21S-R27E
Eddy County, New Mexico

1. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
2. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure.
3. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 2000 psi working pressure.
4. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
5. A kelly cock shall be installed on the kelly at all times.
6. Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

SECTION 1, TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO.



THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

[Signature]
 MERSHEL L. JONES, L.S. No. 3640

GENERAL SURVEYING COMPANY P.O. BOX 1928
 LOVINGTON, NEW MEXICO 88260

MEWBOURNE OIL COMPANY

LEASE ROAD TO ACCESS THE MEWBOURNE ESPERANZA "1" FEDERAL COM. #1 AND #2 WELLS, LOCATED IN SECTION 1, TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

Survey Date: 7/15/2003	Sheet 1 of 1 Sheets
Drawn By: Ed Blevins	W.O. Number
Date: 7/15/03	Scale 1" = 1000' ESER 1-1

Exhibit #4
Status of Wells in Immediate Vicinity
Mewbourne Oil Company
Esperanza "1" Federal Com # 2
660' FSL & 1550' FEL
Section 1 T-21S R-27E
Eddy County, New Mexico
Lease Number NM-17095

Section 1 T-21S R-27E

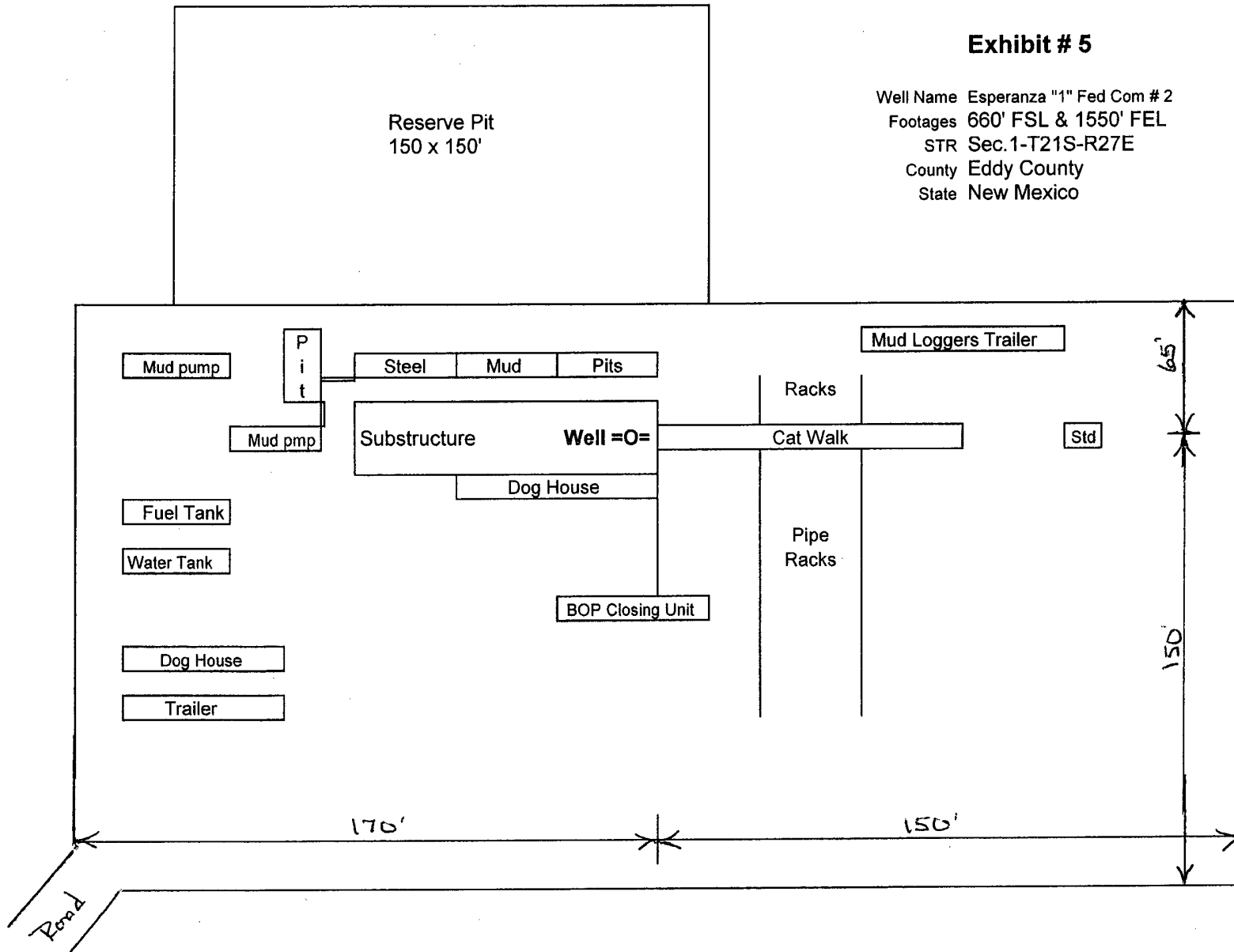
Operator: Mewbourne Oil Company
Well Name: Esperanza "11" Federal Com # 1
Unit letter: M
Status: Producing
Field: Burton Flats Morrow

Operator: Mewbourne Oil Company
Well Name: Esperanza "14" Federal Com # 1
Unit letter: M
Status: Producing
Field: Burton Flats Morrow

Mewbourne Oil Company

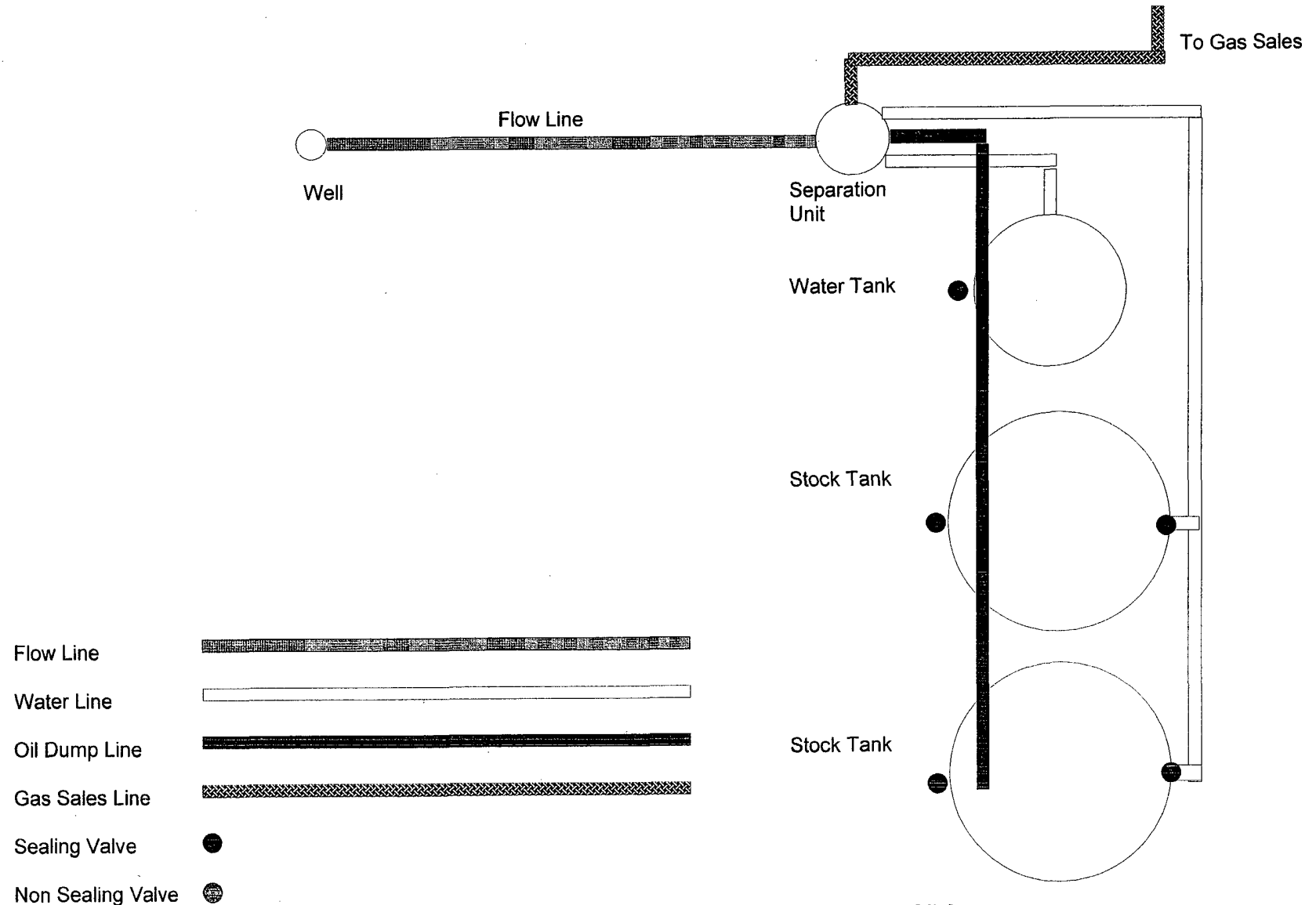
Exhibit # 5

Well Name Esperanza "1" Fed Com # 2
Footages 660' FSL & 1550' FEL
STR Sec.1-T21S-R27E
County Eddy County
State New Mexico



Rig Location Schematic

Proposed Production Facilities Schematic



Mewbourne Oil Company

Exhibit # 6

Proposed Production Facilities Schematic

Esperanza "1" Fed Com # 2

Sec. 1; T21S; R27E

660' FSL & 1550' FEL

Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company

Esperanza "1" Fed Com # 2

660' FSL & 1550' FEL

Section 1- T21S-R27E

Eddy County, New Mexico

1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1 The hazards and characteristics of hydrogen sulfide gas.
- 2 The proper use of personal protective equipment and life support systems.
- 3 The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4 The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

2. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

1. Well Control Equipment

- A. Flare line with automatic igniter or continuous ignition source.
- B. Choke manifold with minimum of one adjustable choke.
- C. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment including rotating head and annular type blowout preventer..

2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located at briefing area as indicated on wellsite diagram.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 ppm.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

3. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

4. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

5. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

6. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

7. **General Requirements**

MOC has researched this area and no high concentrations of H₂S was found. MOC will have on location and working all H₂S safety equipment before Yates and Delaware formations.