

District I  
1625 N. Frehch 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

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

<sup>1</sup> Operator Name and Address Mewbourne Oil Company Po Box 5270 Hobbs, NM 88240		<sup>2</sup> OGRID Number 14744
<sup>3</sup> Property Code 35232	<sup>3</sup> Property Name Osudo South 20 State Com	<sup>4</sup> API Number 30 - 025- 37560
<sup>9</sup> Proposed Pool 1 Osudo Morrow		<sup>10</sup> Proposed Pool 2

**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
C	20	21S	35E		660'	N	1980'	W	Lea

**No<sup>8</sup> Proposed 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
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**Additional Well Information**

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code G	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3649'
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 12700-21222'	<sup>18</sup> Formation Morrow	<sup>19</sup> Contractor TBA	<sup>20</sup> Spud Date ASAP
Depth to Groundwater 50 or more but less than 100' (10 pts)		Distance from nearest fresh water well Less than 1000' from all other wtr sources (1000' or more --0 pts)		Distance from nearest surface water (1000' or more --0 pts)
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 in. thick Clay <input checked="" type="checkbox"/> Pit Volume: 24000 bbls Drilling Method: Production Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

**Proposed Casing and Cement Program**


Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	54.5#	1450'	1150	Surface
12 1/4"	9 5/8"	40#	5300'	2000	Surface
8 3/4"	5 1/2"	17#	12600'	1000	500' above WC

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.

BOP Program: 2k Hydril (see Exhibit #2) from surface casing to intermediate TD. Schaffer LWS or equivalent (Double-Ram Hydraulic) 1500 series with Hydril 900 Series (See Exhibit #2A) from intermediate casing to total depth. Rotating head, PVT, flow monitors and mud gas Separator from the Wolfcamp to TD.

Mud Program: 0' to 1450' Fresh Water, spud mud, lime for PH and LCM as needed for seepage.  
1450' to 5300' Brine Water, lime for PH and LCM as needed for seepage.  
5300' to 11300' Cut brine with Fresh Water, lime for PH and LCM as needed for seepage.  
11300' to TD Cut brine. 9.3 #/g, Caustic for PH, Starch for WL control and LCM as needed for seepage

**Permit Expires 1 Year From Approval  
Date Unless Drilling Underway**

<sup>23</sup> 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 NMOC guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		<b>OIL CONSERVATION DIVISION</b>	
Printed name: Kristi Green		Approved by: 	
Title: Hobbs Production		Title: PETROLEUM ENGINEER	
E-mail Address: kgreen@mewbourne.com		Approval Date: NOV 17 2005	
Date: 11/16/05	Phone: 505-393-5905	Expiration Date:	
		Conditions of Approval Attached <input type="checkbox"/>	

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First, Artesia, NM 88210  
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DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999  
Instruction on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-3756D</b>	Pool Code <b>82120</b>	Pool Name <b>Osudo Morrow</b>
Property Code <b>35232</b>	Property Name <b>OSUDO SOUTH "20" STATE COM.</b>	Well Number <b>1</b>
OGRID No. <b>14744</b>	Operator Name <b>MEWBOURNE OIL COMPANY</b>	Elevation <b>3649</b>

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	21S	35E		660	NORTH	1980	WEST	LEA

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 <b>320</b>	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

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Kristi Green</i> Signature</p> <p><u>Kristi Green</u> Printed Name</p> <p><u>Hobbs Regulatory</u> Title</p> <p><u>11/15/05</u> Date</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p><u>8/22/2005</u> Date Surveyed</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p></p>
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New Mexico Office of the State Engineer  
Well Reports and DownloadsTownship:  Range:  Sections: NAD27 X:  Y:  Zone:  Search Radius: County:  Basin:  Number:  Suffix: Owner Name: (First)  (Last)  ☐ Non-Domestic ☐ Domestic ☒ All

Well / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

WATERS Menu

Help

## AVERAGE DEPTH OF WATER REPORT 11/15/2005

(Depth Water in Feet)

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
CP	21S	35E	30				4	40	42	41

Record Count: 4

50-75' By USGS MAP IN SEC 20

## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

### **MEWBOURNE OIL COMPANY**

Osudo South 20 State Com #1  
660' FNL & 1980' FWL  
Section 20-T21S-R35E  
Lea County, New Mexico

This plan is submitted with Form C101, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

#### **1. Existing Roads:**

- A. Exhibit #3 is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in red and proposed roads are highlighted in yellow.
- B. **Directions to location: From Hobbs, go west on US 62/180 8 miles to NM 8 (Monument Rd). Turn south, continue south approx 15 miles to NM176. Turn right, continue west 8.5 miles. Turn left and continue south 0.7 miles. Turn east and continue east 1 mile. Turn south 0.1 miles then turn east on new road 0.3 miles to location.**

#### **2. Proposed Access Road:**

- A Will need approx 1720' of new road. The road will come from the west & into the location in the southwest corner.

#### **3. Location of Existing and/or Proposed Facilities:**

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, production facilities will be located on the well pad.

#### **4. Location and Type of Water Supply**

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

#### **5. Source of Construction Materials**

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

### **MEWBOURNE OIL COMPANY**

Osudo South "20" State Com #1

Page 2

#### **6. Methods of Handling Waste Disposal:**

- A. Drill cuttings not retained for evaluation purposed will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit prior to closure. Water produced during operations will be disposed of in the reserve pit.
- C. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- E. Current regulations regarding the proper disposal of human waste will be followed.
- F. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

#### **7. Ancillary Facilities**

There are no ancillary facilities within the immediate vicinity of the proposed well site.

#### **8. Well Site Layout**

- A. A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad, pits, and location of major rig components are shown.
- B. The reserve pit will be lined with a high quality plastic sheeting to prevent migration of fluids as per OCD regulations.
- C. The pad dimension of 400' X 250' have been staked and flagged.

#### **9. Plans for Restoration of Surface**

- A. Upon cessation of the proposed operations, if the well is abandoned, the location and road will be ripped and re-seeded. The reserve pit area, after allowing to dry will be leveled. The entire location will be restored to the original contour as much as reasonable possible. All trash, garbage, and pit lining will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonable possible. All restoration work will be completed within 180 days of cessation of activities.
- B. The disturbed area will be restored by re-seeding during the proper growing season.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. The reserve pit will be fenced on the fourth side after the drilling rig is removed to prevent the endangerment of livestock. The fence will remain in place until the pit area has been leveled and restored.
- D. Upon cessation of the proposed operations, if the well is not abandoned, the reserve pit area will be restored as per OCD guidelines. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**MEWBOURNE OIL COMPANY**

Osudo South "20" State Com #1

Page 3

**10. Surface Ownership:**

The surface is owned by: State of New Mexico

**11. Other Information**

A. The primary use of the surface at the location is for grazing of livestock.

**12. Operator's Representative:**

A. Through APD approval, drilling operations, completion and production operations:

**NM Young, District Manager**  
Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241  
505-393-5905

**13. Certification**

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 currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 11/15/05

Signature: *Kristi Green for NM Young*

**NM Young, District Manager**  
Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241  
(505) 393-5905

## Hydrogen Sulfide Drilling Operations Plan

**Mewbourne Oil Company**  
Osudo South 20 State Corn #1  
660' FNL & 1980' FWL  
Section 20-T21S-R35E  
Lea County, New Mexico

### **1. General Requirements**

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H<sub>2</sub>S were found. MOC will have on location and working all H<sub>2</sub>S safety equipment before the Yates formation @ 4000' for purposes of safety and insurance requirements.

### **2. 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.

### **3. 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.

**4. 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.

**5. 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.

**6. 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.

**7. 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.



## **Notes Regarding Blowout Preventer**

### **Mewbourne Oil Company**

Osudo South 20 State Com #1

660' FNL & 1980' FWL

Section 20-T21S-R35E

Lea 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 5000 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 5000 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.

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

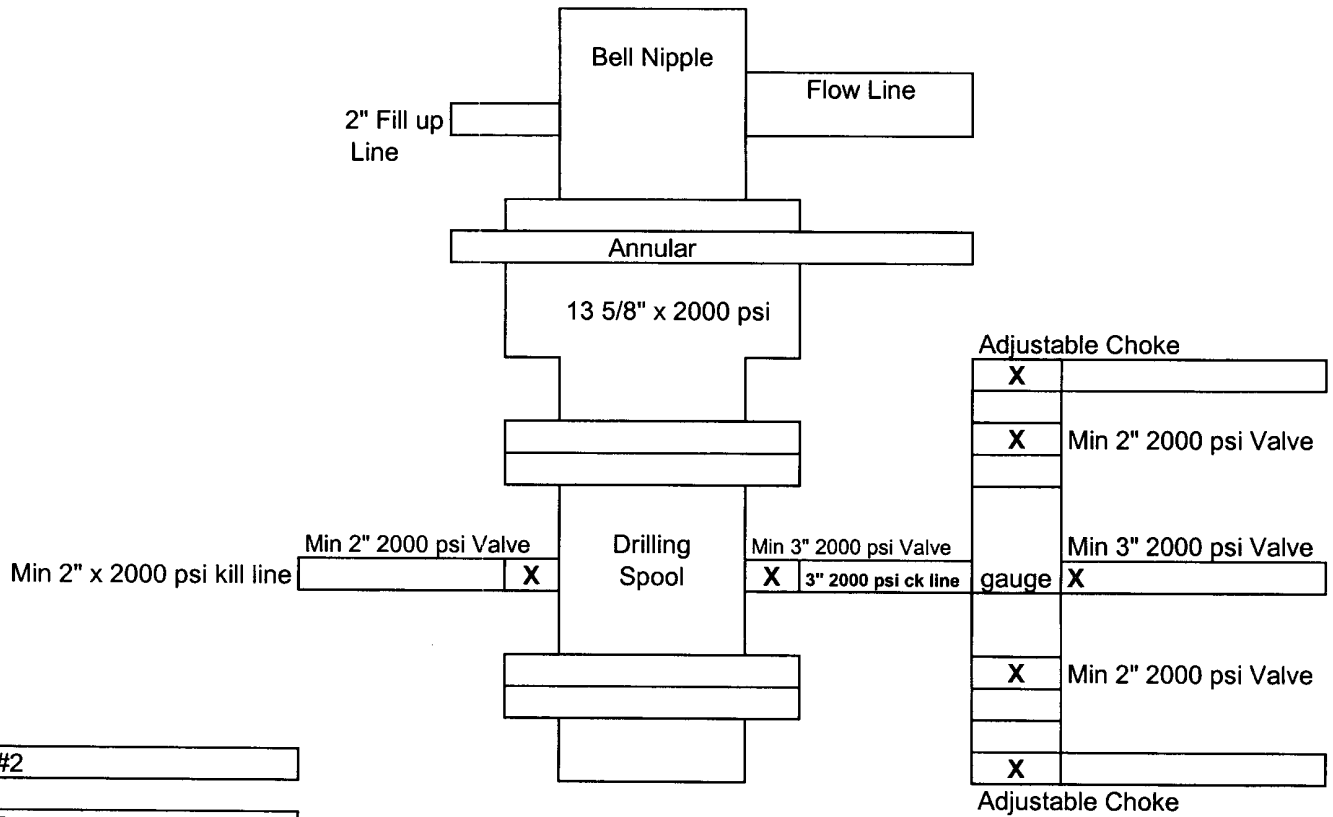


Exhibit #2

Osudo South 20 State Com #1  
Sec 20-T21S-R35E  
660' FNL & 1980' FWL  
Lea County, NM

Mewbourne Oil Company  
BOP Schematic for  
8 3/4" or 7 7/8" Hole

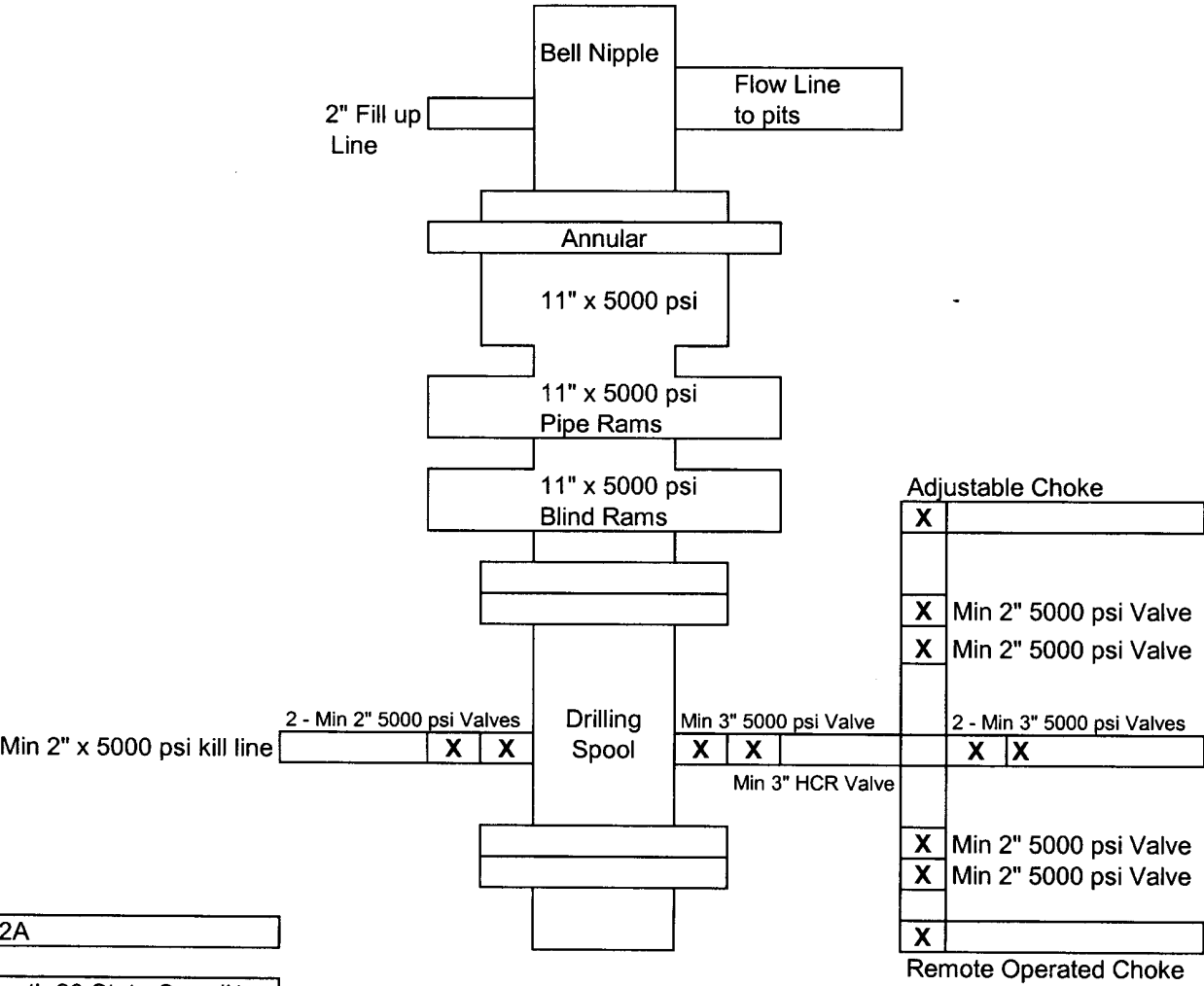


Exhibit #2A

Osudo South 20 State Com #1  
Sec 20-T21S-R35E  
660' FNL & 1980' FWL  
Lea County, NM

SECTION 20, TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY, NEW MEXICO.

Found rock  
w/ Steel

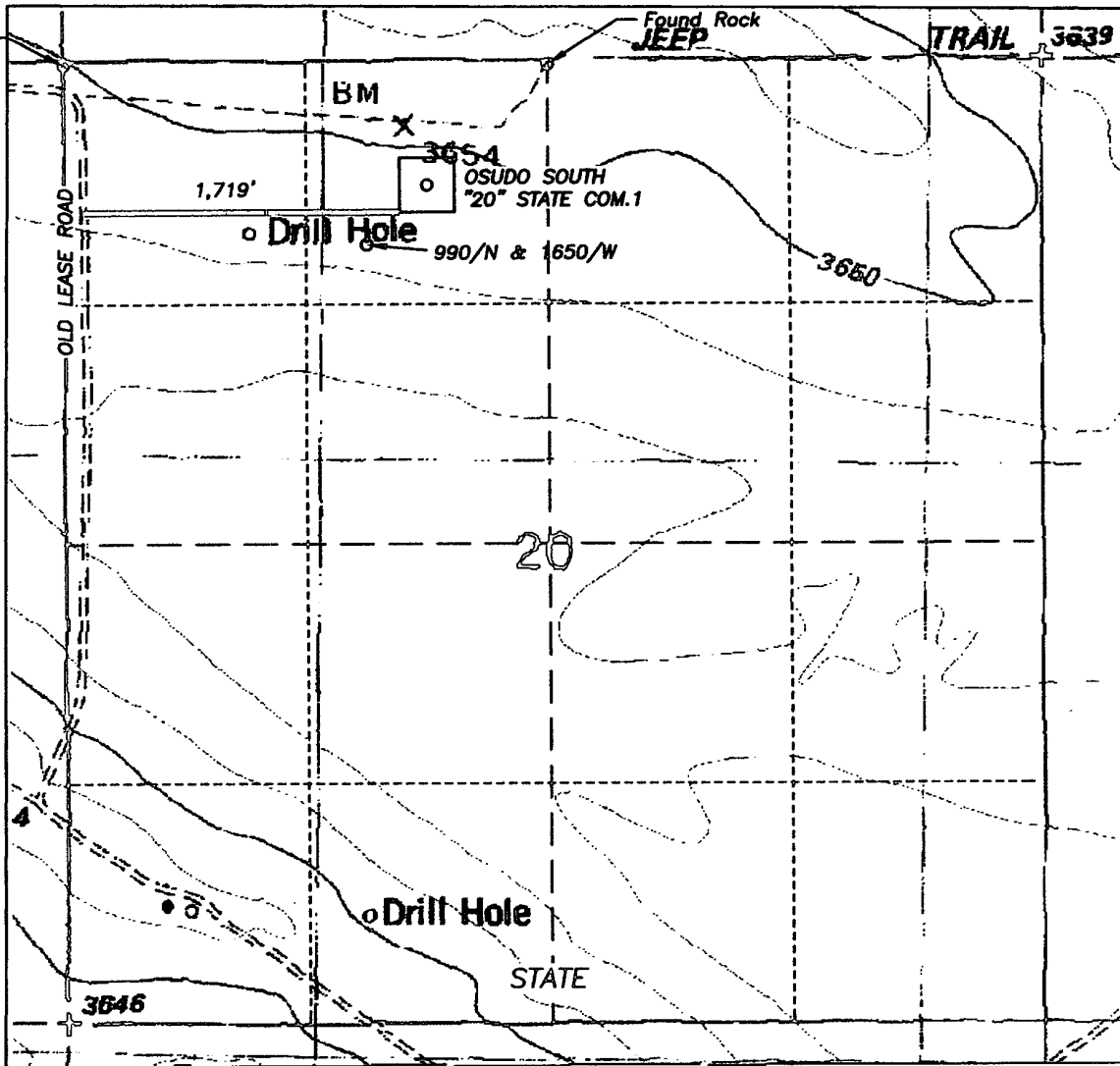


Exhibit 3

1000' 0 1000' 2000'  
Scale 1" = 1000'

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.

*Herschel L. Jones*  
HERSCHEL L. JONES, R.L.S. No. 3640

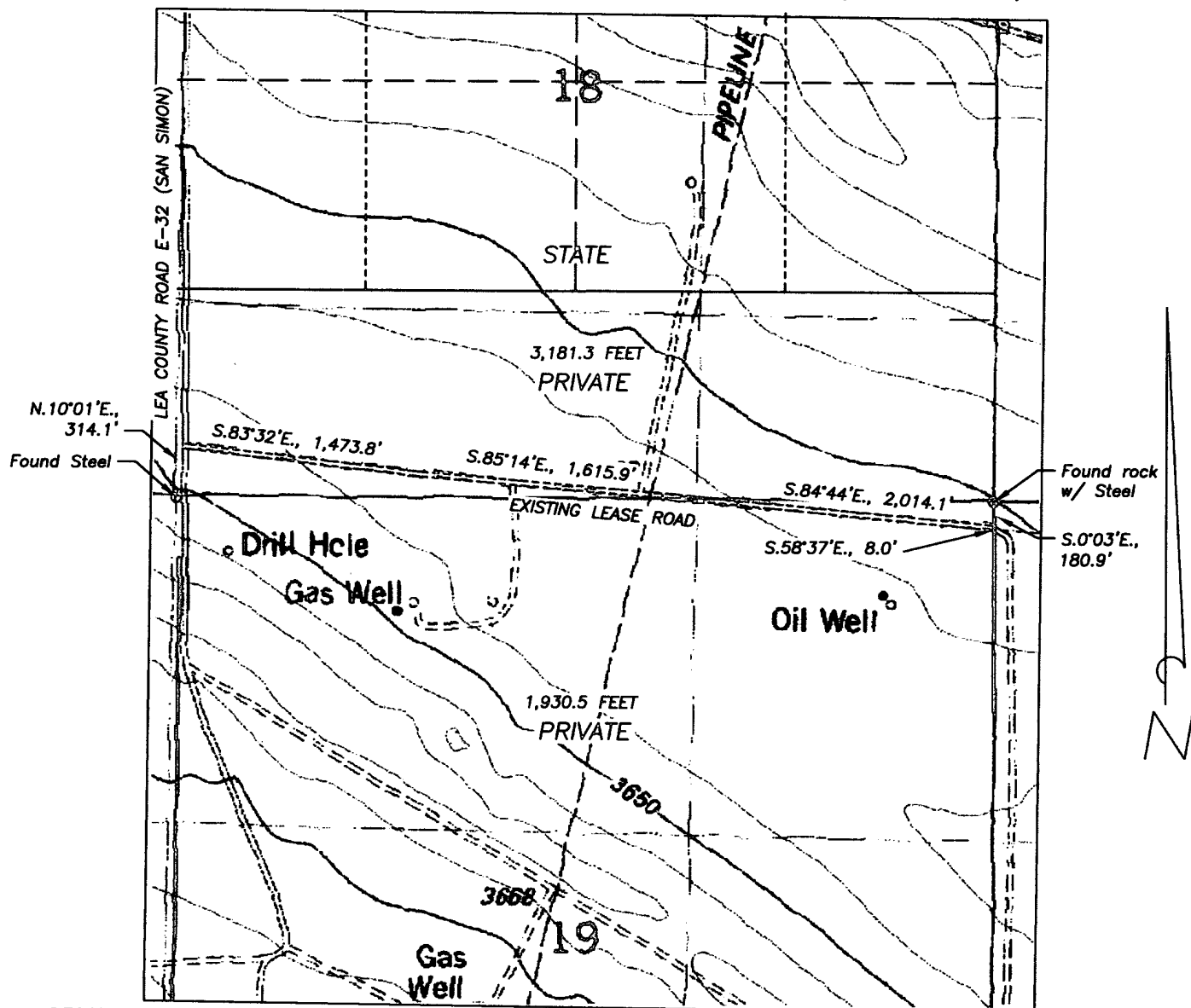
GENERAL SURVEYING COMPANY, P.O. BOX 1928  
LOVINGTON, NEW MEXICO 88260

## MEWBOURNE OIL COMPANY

LEASE ROAD TO ACCESS THE MEWBOURNE OSUDO SOUTH  
"20" STATE COM. #1 WELL, LOCATED IN SECTION 20,  
TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY,  
NEW MEXICO.

Survey Date: 8/22/2005	Sheet 1 of 1 Sheets
Drawn By: Ed Blevins	W.O. Number
Date: 8/22/05	Scale 1" = 1000' OSUDO

S-1/2 SECTION 18, TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY, NEW MEXICO.  
N-1/2 SECTION 19, TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY, NEW MEXICO.



**DESCRIPTION:**

A LEASE ROAD RIGHT OF WAY 30 FEET WIDE, BEING 15 FEET TO THE LEFT AND RIGHT OF AN EXISTING LEASE ROAD CENTERLINE AS SHOWN IN RED ON THIS PLAT AND DESCRIBED AS FOLLOWS;

BEGINNING AT A POINT LOCATED N.10°01'E., 314.1 FEET DISTANT FROM THE SOUTHWEST CORNER OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY, NEW MEXICO; THENCE S.83°32'E., 1,473.8 FEET; THENCE S.85°14'E., 1,615.9 FEET; THENCE S.84°44'E., 2,014.1 FEET; THENCE S.58°37'E., 8.0 FEET, TO A POINT LOCATED S.0°03'E., 180.9 FEET DISTANT FROM THE NORTHEAST CORNER OF SECTION 19, TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY, NEW MEXICO.

TOTAL RIGHT OF WAY LENGTH = 5,111.8 FEET OR 309.8061 RODS, MORE OR LESS.

1000' 0 1000' 2000'  
Scale 1" = 1000'

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 STANDARD FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

HERSCHEL L. JONES F.L.S. No. 3640

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

**MEWBOURNE OIL COMPANY**

LEASE ROAD TO ACCESS THE MEWBOURNE OSUDO SOUTH "20" STATE COM.#1 WELL, LOCATED IN SECTION 20, TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM, LEA COUNTY, NEW MEXICO.

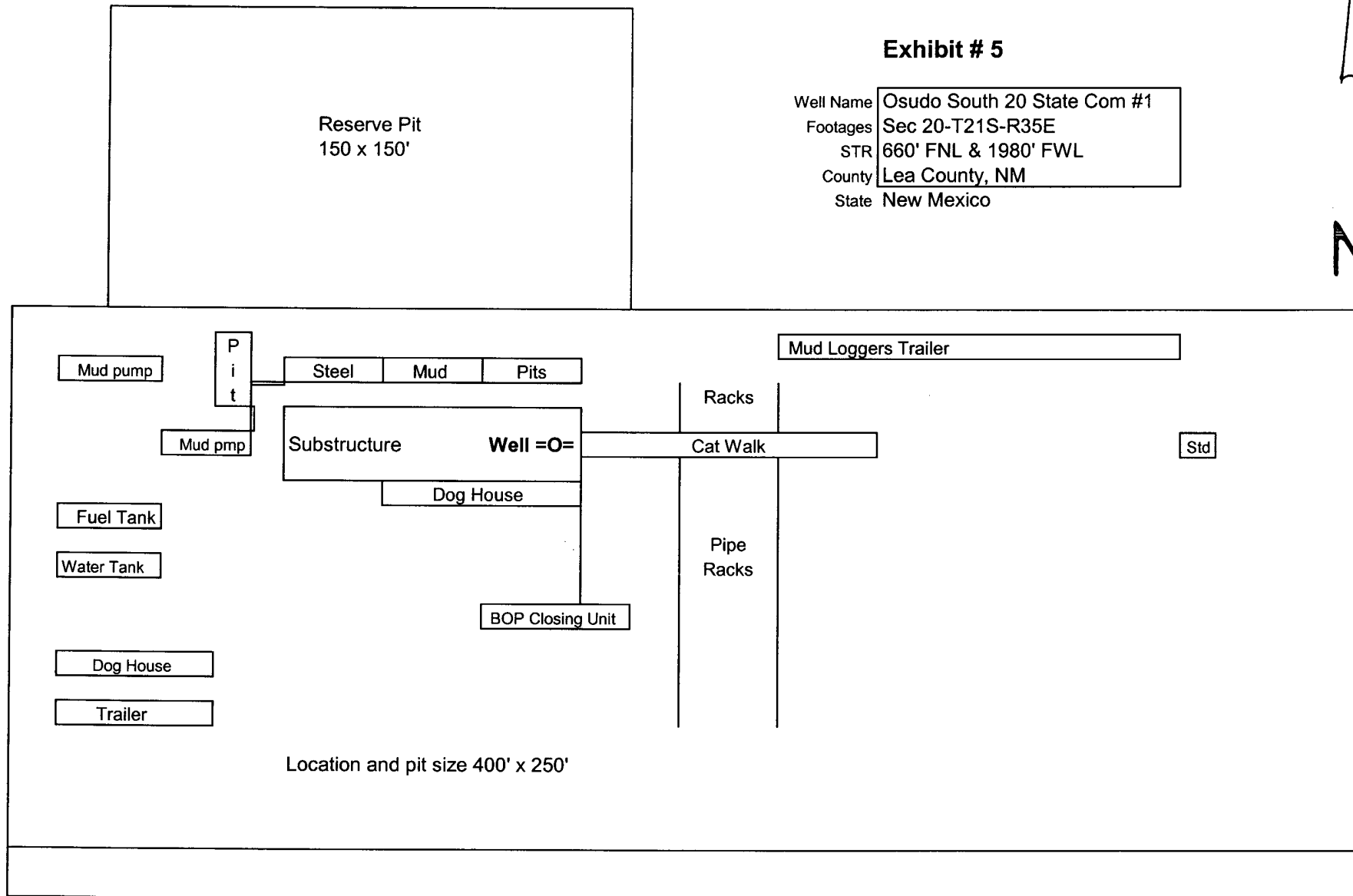
Survey Date: 8/22/2005	Sheet 1 of 1 Sheets
Drawn By: Ed Blevins	W.O. Number
Date: 8/22/05	Scale 1" = 1000' OSUDO

Exhibit 3A

# Mewbourne Oil Company

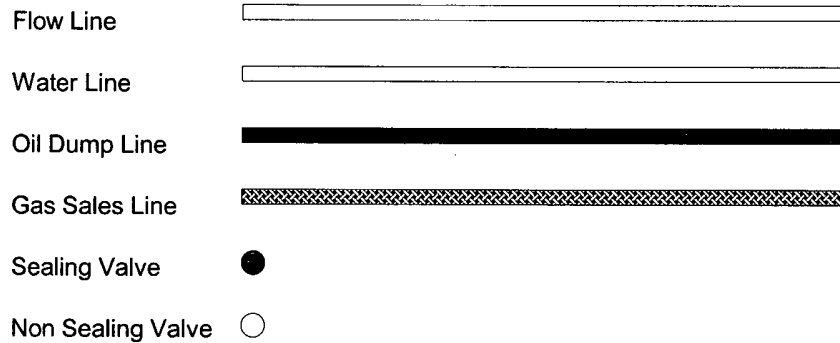
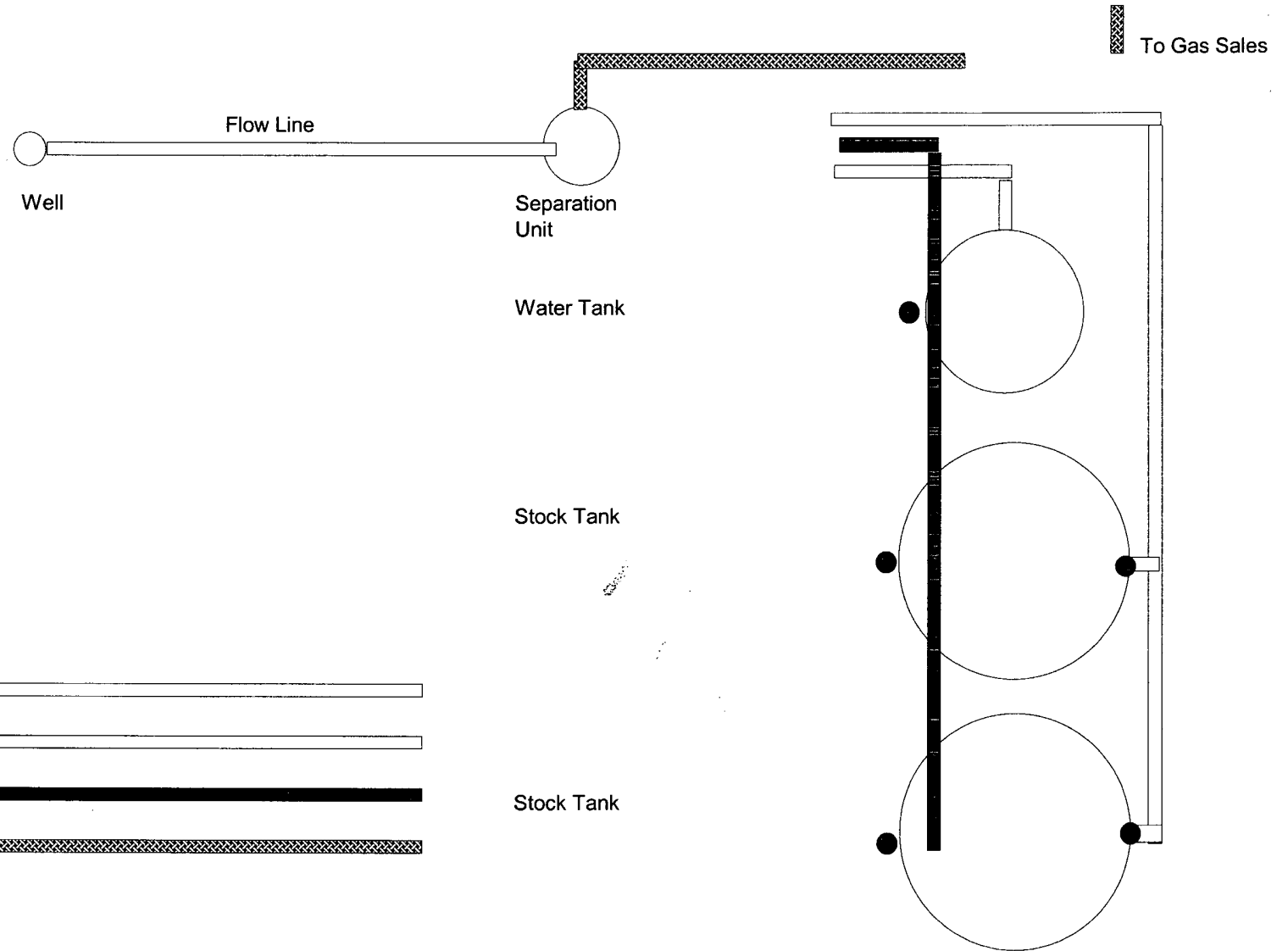
## Exhibit # 5

Well Name Osudo South 20 State Com #1  
Footages Sec 20-T21S-R35E  
STR 660' FNL & 1980' FWL  
County Lea County, NM  
State New Mexico



Rig Location Schematic

# Proposed Production Facilities Schematic



**Mewbourne Oil Company**

Exhibit # 6

Proposed Production Facilities Schematic

Osudo South 20 State Com #1

Sec 20-T21S-R35E

660' FNL & 1980' FWL

Lea County, NM