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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

5-04-04

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-111955
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 - 14744		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 5270 Hobbs, NM 88241	3b. Phone No. (include area code) 505-393-5905	8. Lease Name and Well No. Penlon 28 Federal Com #1
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FNL & 820' FEL At proposed prod. zone Same		9. API Well No. 30-015-33658
14. Distance in miles and direction from nearest town or post office* 8 miles NNE of Carlsbad, NM		10. Field and Pool, or Exploratory Avalon Morrow
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 320	11. Sec., T., R., M., or Blk. and Survey or Area Sec 28-T20S-R27E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. NA	19. Proposed Depth 11,100	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3256' GL	22. Approximate date work will start* ASAP	13. State NM
24. Attachments		17. Spacing Unit dedicated to this well 320
		20. BLM/BIA Bond No. on file NM-1693, Nationwide
		23. Estimated duration 45 days

Capitan 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 <i>Kristi Green</i>	Name (Printed/Typed) Kristi Green	Date 06/30/04
Title Hobbs Regulatory Asst		
Approved by (Signature) <i>/s/ Joe G. Lara</i>	Name (Printed/Typed) <i>/s/ Joe G. Lara</i>	Date AUG 05 2004
Title <i>ACTING</i> 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

Witness Surface Casing

RECEIVED

AUG 05 2004

OSD-ARTESIA

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-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Mewbourne Oil Company Telephone: 505-393-5905 e-mail address: hobeng@mewbourne.com

Address: PO Box 5270 Hobbs, NM 88240

Facility or well name: Penlon 28 Federal Com #1 API #: U/L or Qtr/Qtr A Sec 28 T 20S R 27E

County: Eddy Latitude 32-33-00.0N Longitude 104-16-49.1W NAD: 1927 ☐ 1983 ☒

Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

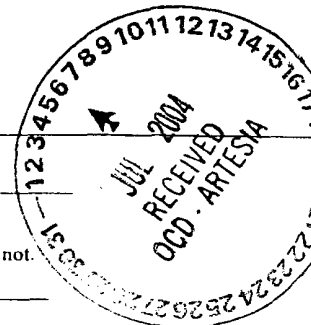
Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Volume
24000 bbl

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

Double-walled, with leak detection? Yes ☐ If not, explain why not:



Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more X

(0 points) X

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No X

(0 points) X

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more X

(0 points) X

Ranking Score (Total Points)

0 points

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 07/01/04

Printed Name/Title Kristi Green - Hobbs Regulatory

Signature Kristi Green

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: 7/9/04

Printed Name/Title Mike Bratcher / Compliance Officer

Signature Mike Bratcher

DISTRICT I
1886 N. French Dr., Hobbs, NM 88240

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

STATE OF NEW MEXICO
Energy, Minerals and Natural Resources Department

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		Pool Code	Pool Name Avalon Morrow
Property Code	Property Name PENLON "28" FEDERAL COM.		Well Number 1
OGRID No. 14744	Operator Name MEWBOURNE OIL COMPANY		Elevation 3256

Surface Location

UL or lot No. A	Section 28	Township 20S	Range 27E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 820	East/West line EAST	County EDDY
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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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Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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**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>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i> Signature Kristi Green Printed Name Hobbs Regulatory Title 07/01/04 Date	
		SURVEYOR CERTIFICATION <i>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.</i> 5/05/2004 Date Surveyed Signature H. Jones Printed Name H. Jones Title 07/01/04 Date	

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

Drilling Program
Mewbourne Oil Company
Penlon "28" Federal Com #1
660' FNL & 820' FEL
Sec 28-T20S-R27E
Eddy County, New Mexico

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

Delaware	2800'
Bone Spring	4800'
Wolfcamp	8700'
Strawn	9100'
Atoka	10100'
Morrow	10650'
TD	11100'

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

Water	Approximately 200'
Hydrocarbons	All zones below Delaware

3. Pressure control equipment:

A 2000 psi working pressure annular BOP will be installed on the 13-3/8" surface casing. A 5000 psi WP Double Ram BOP and a 3000 psi WP Annular will be installed after running 9 5/8" casing. Pressure tests will be conducted prior to drilling out under all casing strings.

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.

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	0-450'
12 1/4"	9 5/8"	40#	K55/N80	0-2600'
8 3/4"	5 1/2"	17#	P110/N80	0-11100'

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

Drilling Program

Mewbourne Oil Company

Penlon "28" Federal Com #1

Page 2

B. Cementing Program

- i. Surface Casing: 300 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.
- ii. Intermediate Casing: 900 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 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 a 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'-450'	FW spud mud	8.6-9.4	32-34	NA
450'-3000'	FW	8.4-8.6	28-30	NA
3000'-10300'	Cut brine water	8.8-9.2	28-30	NA
10300'-TD	BW/Starch	9.2-9.8	30-40	8-15

(Note: Any weight above 8.6 ppg would be to hold back Wolfcamp shale, rather than abnormal bottom hole pressure in Morrow formation.)

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: 8.6 lbs/gal gradient or less

Hydrogen Sulfide Drilling Operations Plan
Mewbourne Oil Company
Penlon "28" Federal Com #1
660' FNL & 820' FEL
Sec 28-T20S-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 Delaware.

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Penlon "28" Federal Com #1

660' FNL & 820' FEL

Sec 28-T20S-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 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

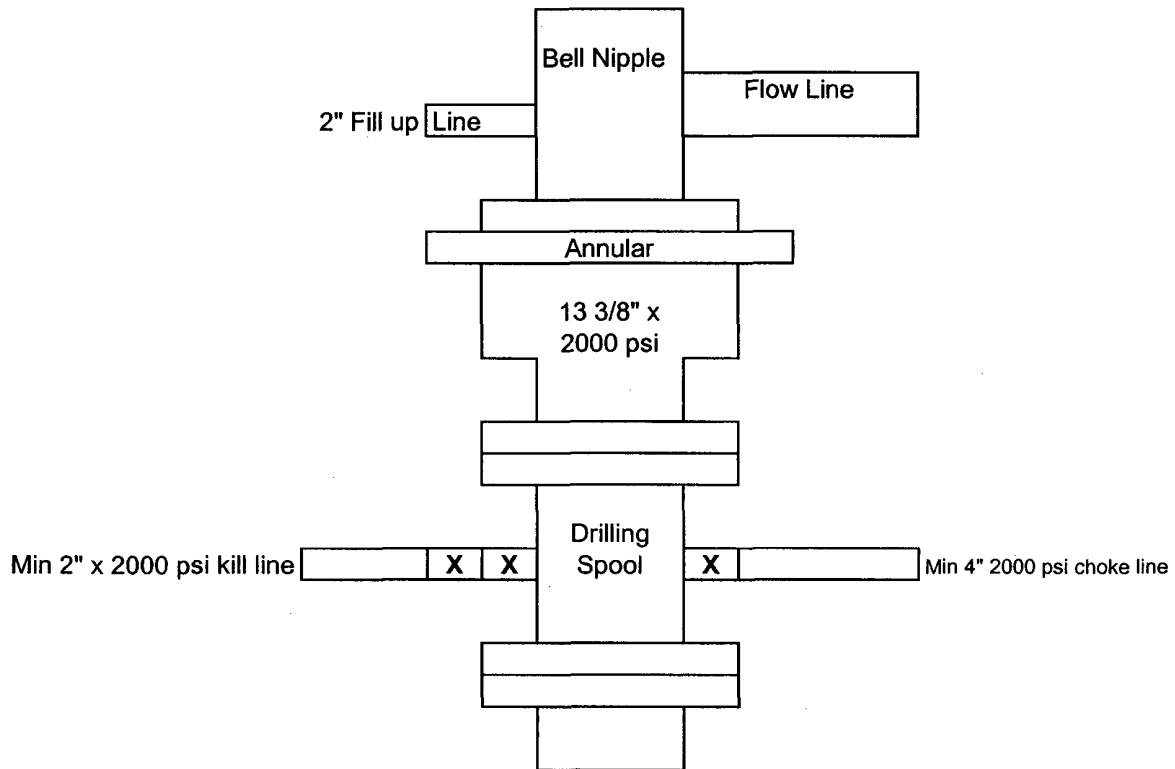


Exhibit #2

Penlon 28 Federal Com #1
660' FNL & 820' FEL
Sec 28-T20S-R27E
Eddy County, New Mexico

Mewbourne Oil Company

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

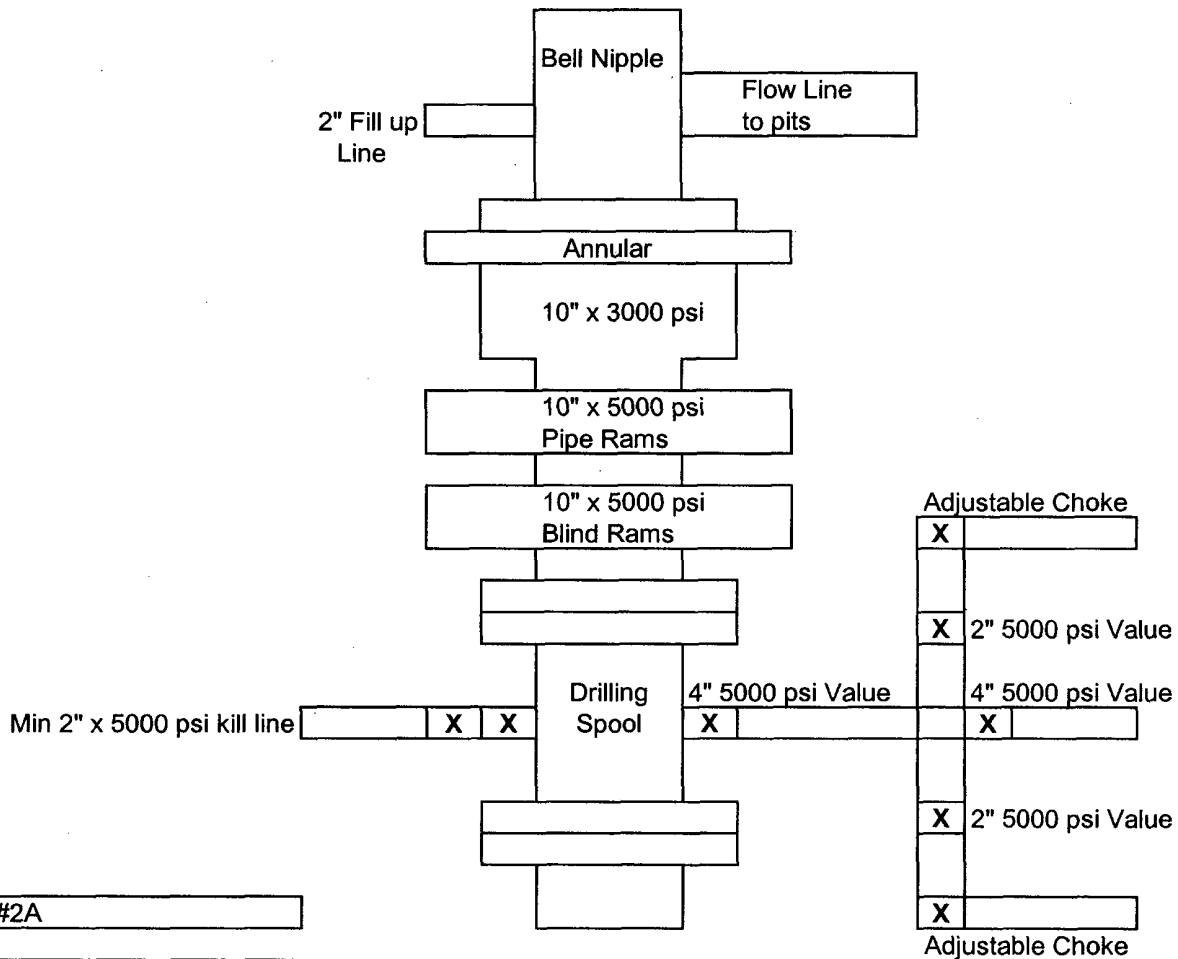


Exhibit #2A

Penlon 28 Federal Com #1
660' FNL & 820' FEL
Sec 28-T20S-R27E
Eddy County, New Mexico

SECTION 28, TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

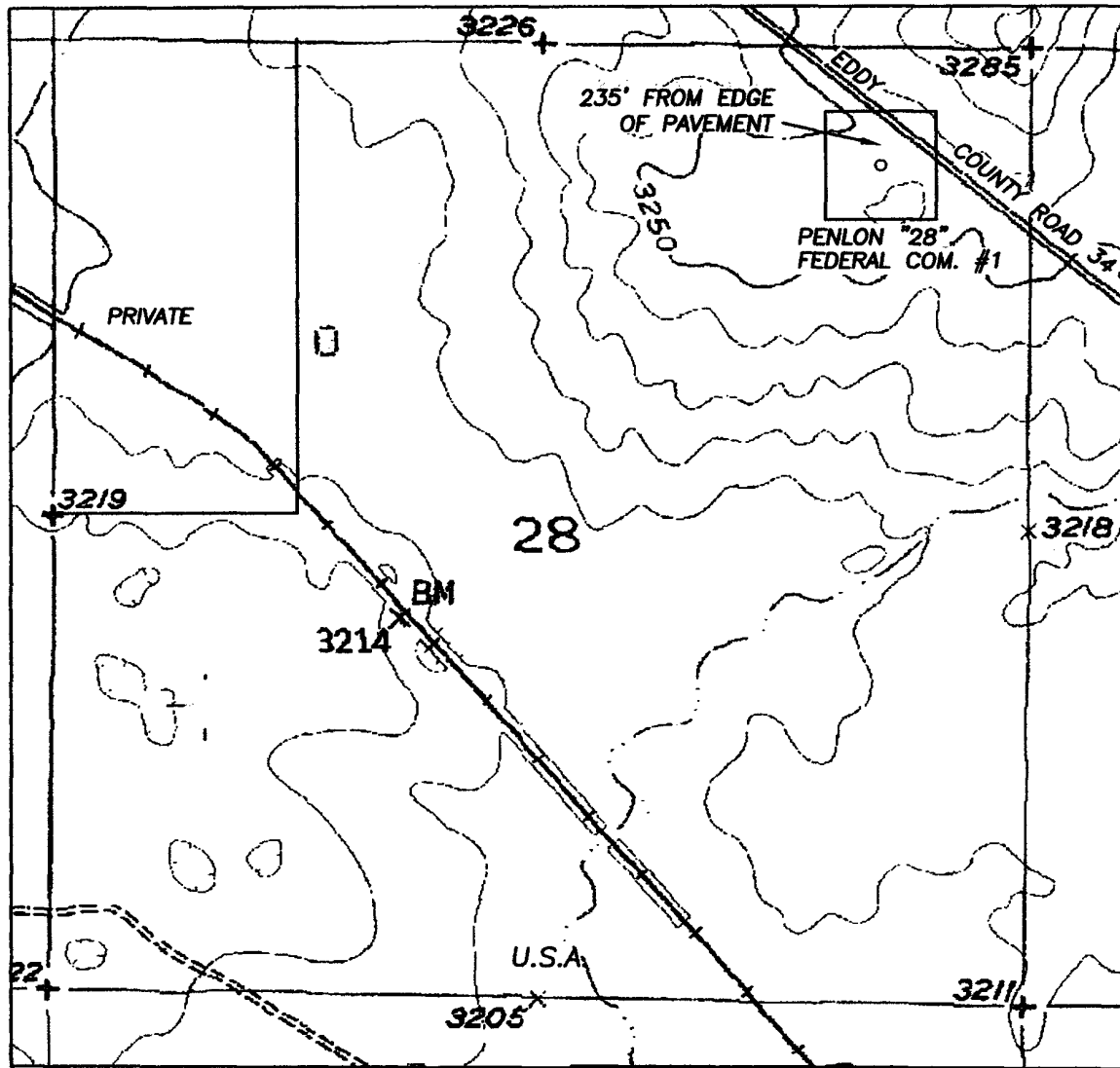
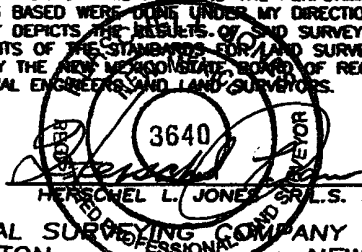


Exhibit 3A

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.



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

MEWBOURNE OIL COMPANY

LEASE ROAD TO ACCESS THE MEWBOURNE PENLON #28
FEDERAL COM. #1 WELL, LOCATED IN SECTION 28,
TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM, EDDY
COUNTY, NEW MEXICO.

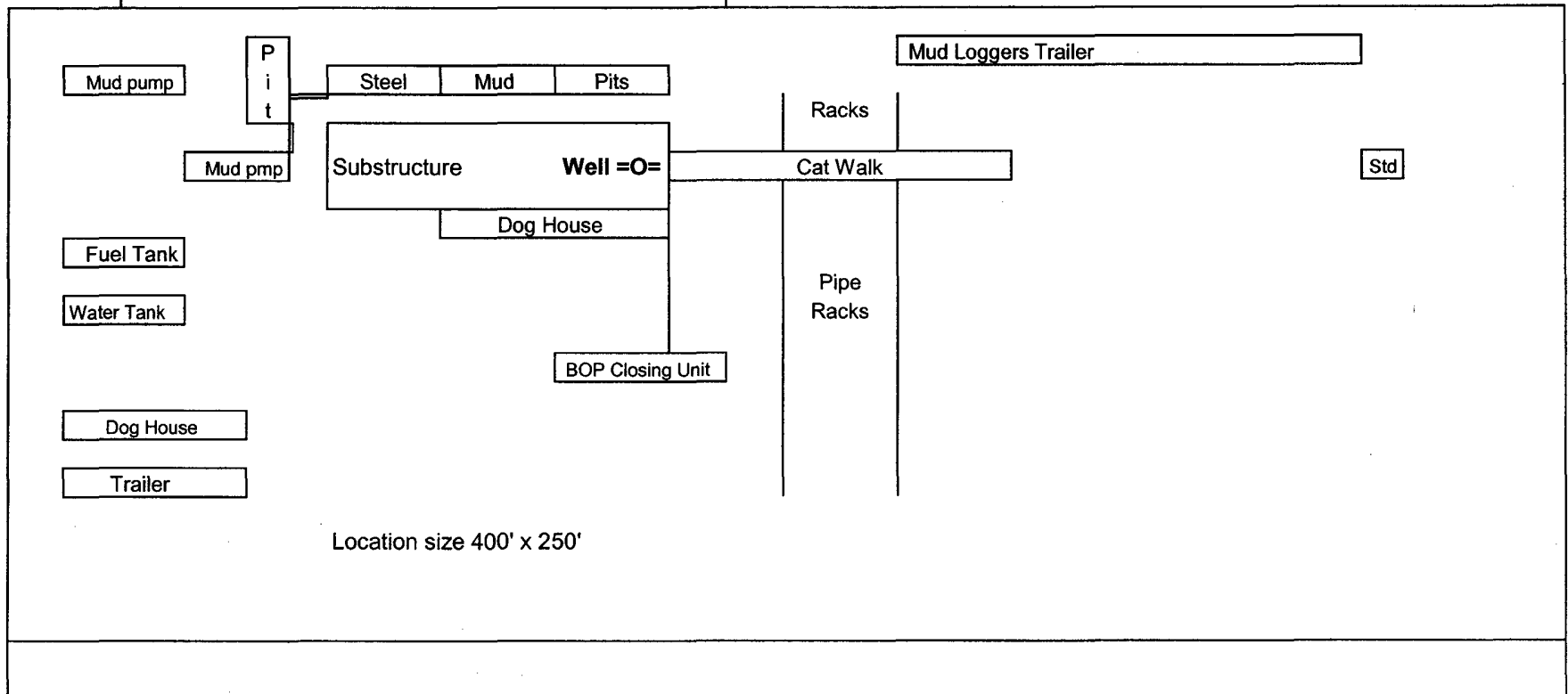
Survey Date: 5/05/2004	Sheet 1 of 1 Sheets
Drawn By: Ed Blevins	W.O. Number
Date: 5/05/04	Scale 1" = 1000' PENLON28-1

Mewbourne Oil Company

Exhibit # 5

Well Name	Ruger 31 Fed #1
Footages	660' FSL & 660' FWL
STR	Sec 31-T19S-R29E
County	Eddy County
State	NM

Reserve Pit
150 x 150'



Rig Location Schematic