

OCD-ARTESIA

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

S UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

644

Month - Year
MAY 7 2007
OCD-ARTESIA, NM

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-14758
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" 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 PO Box 5270 Hobbs, NM 88240	3b. Phone No. (include area code) 505-393-5905	8. Lease Name and Well No. Fast Draw 4 Federal Com #1 36484
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FNL & 1900' FWL Unit F At proposed prod. zone Same		9. API Well No. 30-015-35599
14. Distance in miles and direction from nearest town or post office Northwest from Carlsbad approx 18 miles		10. Field and Pool, or Exploratory Cemetery Morrow 74640
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'		11. Sec., T., R., M., or Blk. and Survey or Area Sec 4-T20S-R25E
16. No. of Acres in lease 120	17. Spacing Unit dedicated to this well 320	12. County or Parish Eddy
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1924'	19. Proposed Depth 9800'	13. State NM
20. BLM/BIA Bond No. on file NM1693, Nationwide	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3497' GL	22. Approximate date work will start* ASAP
23. Estimated duration 45		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- 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 04/02/07
Title Hobbs Regulatory		
Approved by (Signature) <i>James Stovall</i>	Name (Printed/Typed)	Date
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)

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
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.**

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

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 74640	Pool Name Cemetery Morrow
Property Code	Property Name FAST DRAW "4" FEDERAL	Well Number 1
OGRID No. 14744	Operator Name MEWBOURNE OIL COMPANY	Elevation 3497'

Surface Location

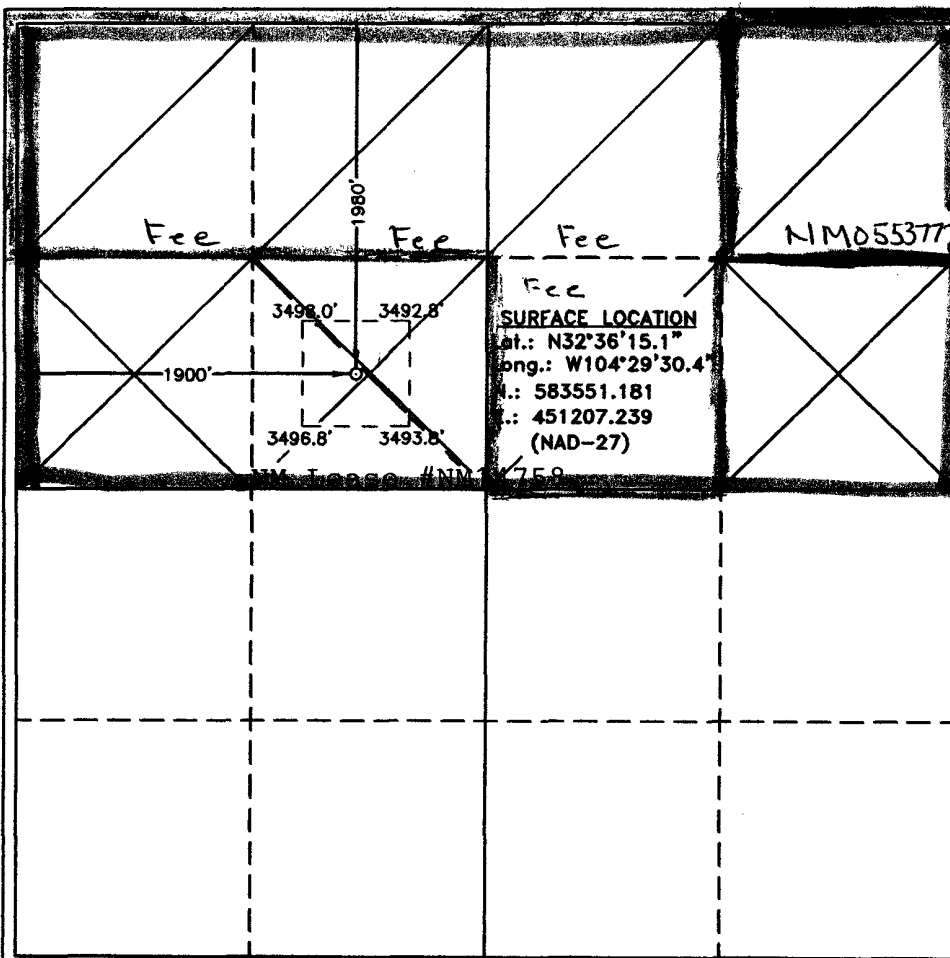
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	4	20 S	25 E		1980	NORTH	1900	WEST	EDDY

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.
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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 hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kristi Green 4/2/07
Signature Date
Kristi Green
Printed Name

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.

MARCH 27, 2007
Date Surveyed
Signature of Gary L. Jones
Professional Surveyor
Certificate No. Gary L. Jones 7977

BASIN SURVEYS

Drilling Program
Mewbourne Oil Company
Fast Draw 4 Federal Com #1
1980' FNL & 1900' FWL
Sec 4-T20S-R25E
Eddy County, New Mexico

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

San Andres	725'
Glorietta	2330'
Yeso	2530'
Bonespring	3940'
Wolfcamp	6480'
Cisco	7650'
Canyon	8190'
Strawn	8500'
Atoka	8930'
Morrow	9070"
TD	9800'

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

Water	Below 200'
Hydrocarbons	All zones below Yeso

3. Pressure control equipment:

A 3000# WP Double Ram BOP will be installed after running 8 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.

See modified Exhibit #3 Diagram

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>
Will set 80' of conductor hole				
12 1/4"	8 5/8"	32#	J55	0-1200'
7 7/8"	4 1/2"	11.60#	HCP110	0-9800'

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

B. **Cementing Program**

- i. Surface Casing: 300 sacks Class C light cement with additives. 400 sks Class C cement with 2% CaCl.
- iii. Production Casing: 1000 sacks Class H light with additives. 400 Class H with additives.

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

*See
CoA*

5. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-1200'	FW spud mud	8.6-9.4	30-32	NA
1200'-8900'	Cut Brine water	8.6-9.0	28	NA
8900'-TD	Cut Brine water	9.0-9.5	28-30	<10

(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:	9.0 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.

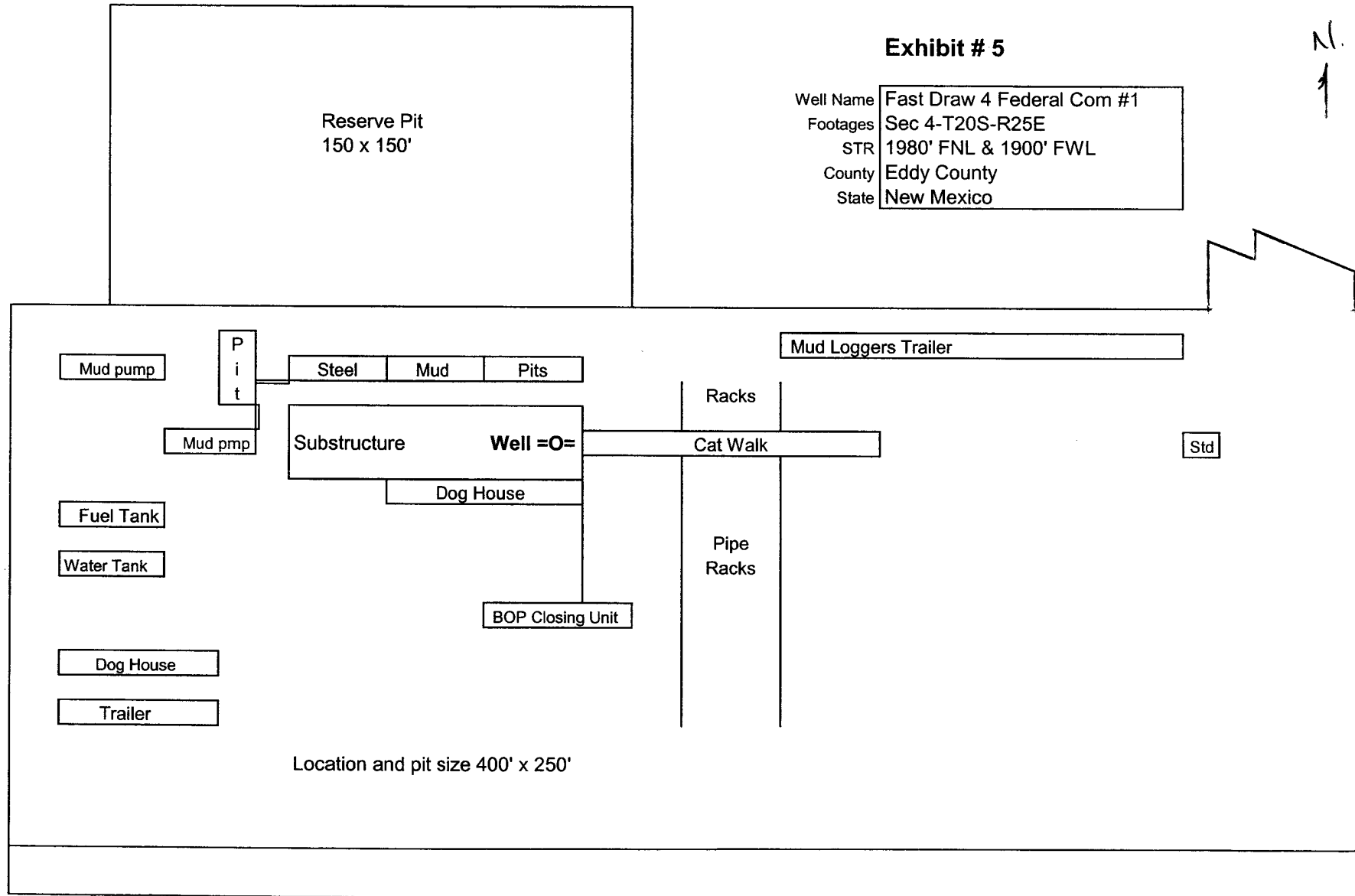
Mewbourne Oil Company

Pete West
V-Door North

Exhibit # 5

Well Name Fast Draw 4 Federal Com #1
Footages Sec 4-T20S-R25E
STR 1980' FNL & 1900' FWL
County Eddy County
State New Mexico

N.
↑



Rig Location Schematic

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

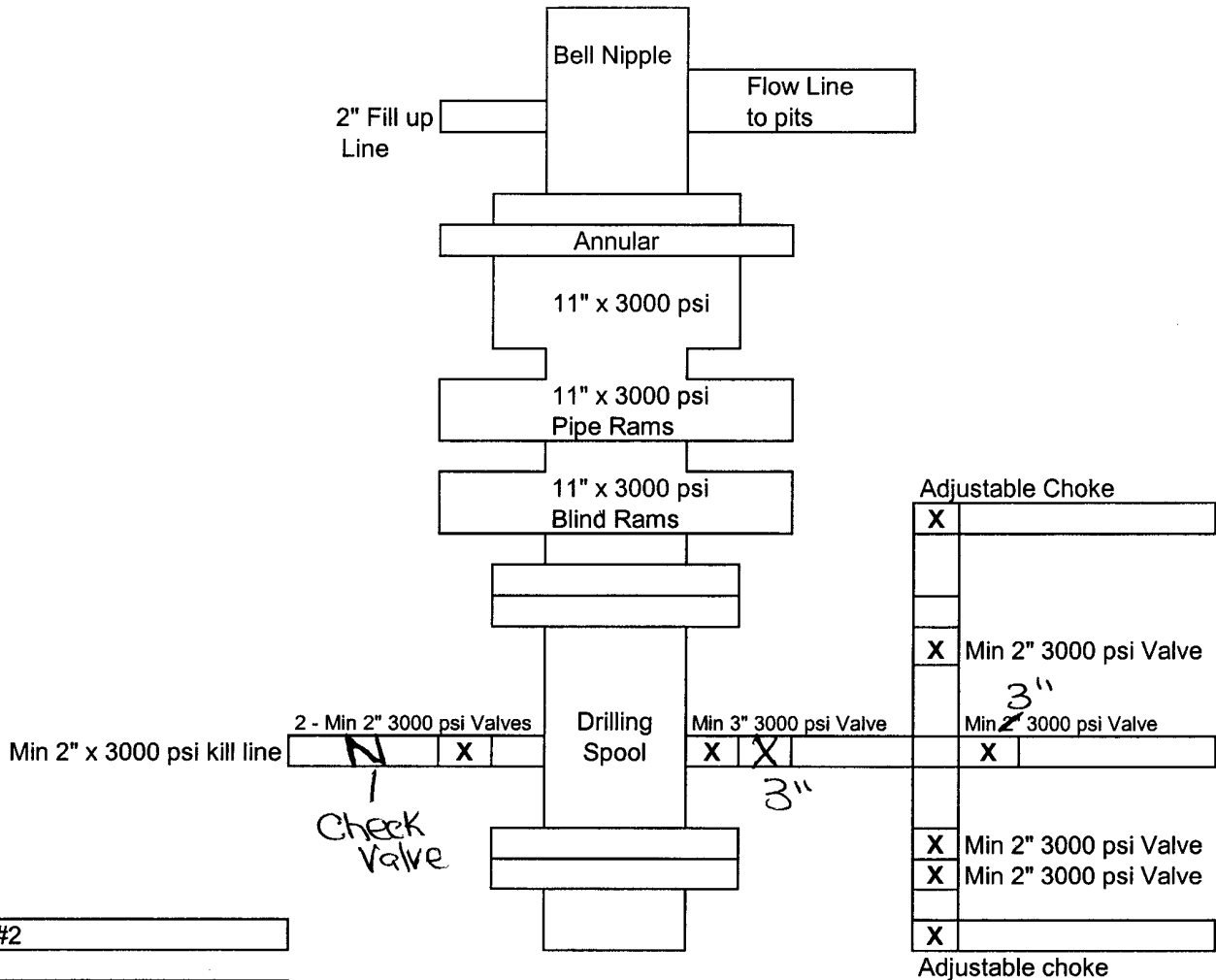


Exhibit #2

Fast Draw 4 Federal Com #1
Sec 4-T20S-R25E
1980' FNL & 1900' FWL
Eddy County
New Mexico

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company
Fast Draw 4 Federal Com #1
1980' FNL & 1900' FWL
Sec 4-T20S-R25E
Eddy County, New Mexico

1. General Requirements

Rule 118 does not apply to this well. MOC has researched this area and no high concentrations of H₂S were found. MOC will have on location and working all H₂S safety equipment before the San Andres formation 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

Fast Draw 4 Federal Com #1

1980' FNL & 1900' FWL

Sec 4-T20S-R25E

Eddy County, New Mexico

- I. 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.
- II. Blowout preventer and all fittings must be in good condition with a minimum 3000 psi working pressure.
- III. 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 3000 psi working pressure.
- IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- V. A kelly cock shall be installed on the kelly at all times.

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.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Fast Draw 4 Federal Com #1

1980' FNL & 1900' FWL

Sec 4-T20S-R25E

Eddy County, New Mexico

This plan is submitted with Form 3160-3, 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 road map showing the location of the proposed well. Exhibit #3a is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in black.
- B. **Directions to location from Carlsbad, NM: Go north on US285 approx 10 miles (just north of Brantley Lake). Turn west on CR23 (Rock Daisy Rd) and go west 4.6 miles. Turn south and go 0.8 miles on existing lease road to new location.**

2. Proposed Access Road:

No new road will be needed.

3. Location of Existing Wells:

There are producing wells within the immediate vicinity of this well site shown on Exhibit 4.

4. 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.
- C. All production vessels left on location will be painted to conform with BLM painting stipulations within 180 days of installation.

5. 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.

6. 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.

NEW MEXICO.



FROM CARLSBAD, GO NORTH ON U.S. HWY 285 TO MILE MARKER 54 AND PROCEED 300' PAST MILE MARKER 54 TO CO. RD. 23 (ROCK DAISY), ON CO. RD. 23 GO WESTERLY 4.7 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTH 0.8 MILES TO PROPOSED LOCATION.

Date: 03-28-2007	Disk: JMS 17942W
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Survey Date: 03-27-2007 Sheet 1 of 1 Sheets

Exhibit 3A

Exhibit #4
Status of Wells in Immediate Vicinity
Mewbourne Oil Company
Fast Draw 4 Federal Com #1
1980' FNL & 1900' FWL
Sec 4-T20S-R25E
Eddy County, New Mexico

Section 4-T20S-R25E

Operator: Nearburg Producing Company
Well Name: Holstun SWD #1
Unit letter: B
Status: SWD
Field: Devonian

Operator: Mewbourne Oil Company
Well Name: Long Draw 4 Federal #1
Unit letter: O
Status: Producing
Field: Cemetery Morrow

Conditions of Approval Cave and Karst

EA#: NM-520-06-0644

Lease #: NM-14758

**Mewbourne Oil Company
Fast Draw 4 Federal Com No.1**

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. Use depth to the deepest expected fresh water as listed in the geologist report.

Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater than 75 percent occur simultaneously while drilling in any cave-bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Mewbourne Oil Co.
Well Name & No. Fast Draw 4 Federal Com # 1
Location: 1980'FNL, 1900'FWL, SEC4, T20S, R25E, Eddy County, NM
Lease: NM-14758

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance, at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - for wells in Eddy County, in sufficient time for a representative to witness:

1. Spudding
2. Cementing casing: 8.625 inch 4.5 inch
3. BOP tests

B. A Hydrogen Sulfide (H₂S) Drilling Plan is N/A.

C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

D. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

E. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The 8.625 inch surface casing shall be set at 1200 feet and cement circulated to the surface.

1. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
2. Wait on Cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, which ever is greater. (This is to include the lead cement)
3. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds of compression strength, which ever is greater.
4. If cement falls back, Remedial cementing shall be completed prior to drilling out that string.

B. The minimum required fill of cement behind the 4.5 inch production casing is cement shall circulate to the surface.

D. If hard band drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.

B. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 8.625 inch casing shall be 3000 psi.

C. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of the independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. The test will be held for a minimum of 10 minutes if the test is done with a test plug and 30 minutes without a test plug.
5. BOP/BOPE must be tested by an independent service within 500 feet of the top of the **Wolfcamp** Formation. This test does not exclude the test prior to drilling out the casing shoe as per onshore order No. 2.
6. A variance to test the _____ to the reduced pressure of ____psi with the rig pumps is approved the BOP/BOPE must be tested by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

V. Hazards:

1. Our geologist has indicated that there is High potential for Cave / Karst features.
2. Our geologist has indicated that there is potential for lost circulation in the San Andres, Wolfcamp and Strawn formations.
3. Our geologist has indicated that there is potential for Abnormal pressures in the Wolfcamp, Strawn, Atoka and Morrow formations.

Engineering may be contacted at 505-706-2779 for variances if necessary.

FWright 4/10/07