AT5-07-428

Form 3160-3
(September 2001)

882

OCD-ARTESIA

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HIGH CAVEKARST

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.	NMNM--103878
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No	
8 Lease Name and Well No.	Thomoson 8 Federal Com #1
9 API Well No	30-015-35734
10. Field and Pool, or Exploratory	East Burton Flat Morrow
11 Sec., T., R., M., or Blk. and Survey or Area	Sec 8-T20S-R29E
12. County or Parish	Eddy
13. State	NM

1a. Type of Work: ☑ DRILL ☐ REENTER

1b Type of Well ☐ Oil Well ☑ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

JUL 11 2007
OCD-ARTESIA

2 Name of Operator
Mewbourne Oil Company - 14744

3a Address
PO Box 5270 Hobbs, NM 88240

3b. Phone No. *(include area code)*
505-393-5905

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface 925' FNL & 660' FEL Unit A
At proposed prod. zone Same

14. Distance in miles and direction from nearest town or post office*
13 miles NE of Carlsbad, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
660'	320	320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
1500'	11800'	NM1693, Nationwide
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3280' GL	ASAP	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:

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)*	Date
Kristi Green	Kristi Green	05/31/07

Title
Hobbs Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ James Stovall	/s/ James Stovall	JUL 06 2007
Title 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 TWO YEARS

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

Capitan Controlled Water Basin

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
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

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

Form C-102
Revised March 17, 1999
Instruction on back
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
	73320	East Burton Flat Morrow

Property Code	Property Name	Well Number
36633	Thompson 8 Federal Com	1

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3280

Surface Location

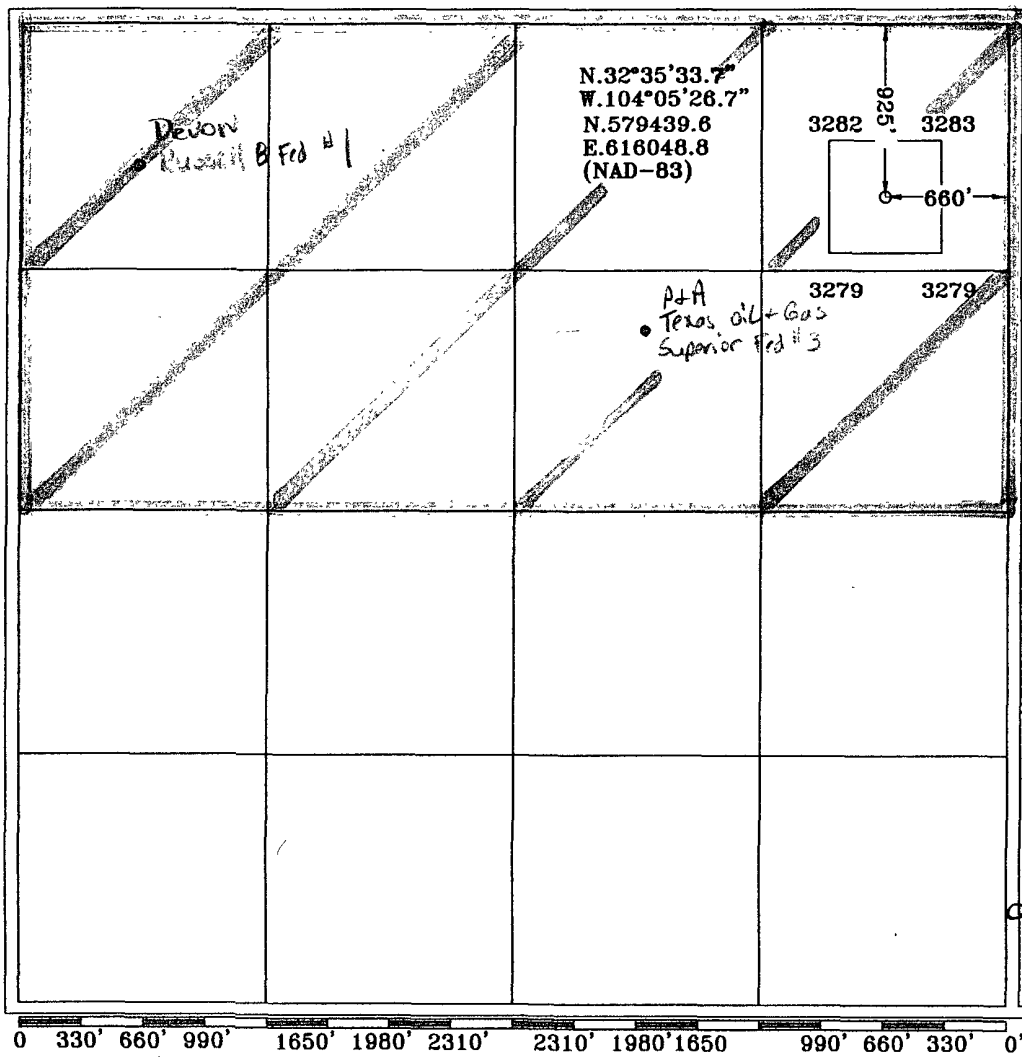
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	20S	29E		925	NORTH	660	EAST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
320			

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

Kristi Green
Printed Name

Hobbs Regulatory
Title

04/17/07
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 supervison, and that the same is true and correct to the best of my belief.

1/24/2006
Date Surveyed

Signature & Seal of Professional Surveyor

HERSCHEL L. JONES
NEW MEXICO
3640
REGISTERED PROFESSIONAL LAND SURVEYOR
GENERAL SURVEYING COMPANY

Certificate No. Herschel L. Jones RLS 3640

HENRY 8-2

United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Mewbourne Oil Company
Street or Box: P.O. Box 5270
City, State: Hobbs, New Mexico
Zip Code: 88241

Mewbourne Oil Company of Hobbs, NM is a field office of Mewbourne Oil Company, 3901 S Broadway, Tyler TX 75701. **Mail connected to this APD should be directed to the Hobbs address.** The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number: Lease Number #NMNM-103878

Legal Description of Land: Section 8, T-20S, R-29E Eddy County, New Mexico.
Location @ 925' FNL & 660' FEL.

Formation (if applicable): Morrow

Bond Coverage: $150,000

BLM Bond File: NM1693, Nationwide

Authorized Signature: NM Young by Kristi Green

Name: NM (Micky) Young
Title: District Manager
Date: June 1, 2007

Drilling Program

Mewbourne Oil Company
Thompson "8" Federal Com #1
925' FNL & 660' FEL
Sec 8-T20S-R29E
Eddy County, New Mexico

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

Tansill	920'
Yates	1100'
Capitan Reef	1340'
Delaware	3147'
Bonespring	5650'
Wolfcamp	9189'
Strawn	10360'
Atoka	10740'
Morrow	11260'
Barnett	11625'

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

Water	Below 200'
Hydrocarbons	All zones below Delaware

3. Pressure control equipment:

A 2000# working pressure annular BOP will be installed on the 13 ⅜" surface casing. A 5000# WP Double Ram BOP and a 3000# WP Annular will be installed after running 9 ⅝" casing. Pressure tests will be conducted prior to drilling out under all casing strings. Testing of 2000# annular will be with rig pump. 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:

Hole Size	Casing	Wt/Ft	Grade	Depth	Jt Type
26"	20" (new)	94#	J55	0-300'	BT&C
17 ½"	13 ⅜ " (new)	48#	H40	0-1300'	ST&C
12 ¼"	9 ⅝" (new)	40#	N80/J55	0-3100'	LT&C
8 ¾"	4 ½" or 5 ½" (new)	11.6# or 17#	P110/N80	0-11800'	LT&C

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 containing ½#/sk cellophane flakes, 2% CaCl, 5#/sk gilsonite 200 sks Class C cement containing 2% CaCl. Cmt circulated to surface

ii. Deep Surface Casing. 700 sacks 35.65 Class "C" light cement containing ½#/sk cellophane flakes & 5 lbs/sack gilsonite 400 sacks Class "C" cement containing 2% CaCl. Cmt circulated to surface.

iii. Intermediate Casing: 900 sacks 35:65 pozmix cement containing 6% gel,5#/sack gilsonite. 400 sacks Class C cement containing 2% CaCl. Cmt circulated to surface.

iv. 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. Cmt top to be 500' above wolfcamp.

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

5. Mud Program:

Interval	Type System	Weight	Viscosity	Fluid Loss
0'-300'	FW spud mud	8.6-9.4	32-34	NA
300'-1300'	Brine water	10.0-10.2	28-30	NA
1300'-3100'	Fresh water	8.4-8.6	28-30	NA
3100'-10000'	Cut brine water	8.8-9 2	28-30	NA
10000'-TD	BW/Starch	9.2-9.8	30-40	8-15

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

It may become necessary to drill thru the Capitan reef with aerated fluid to maintain circulation.

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

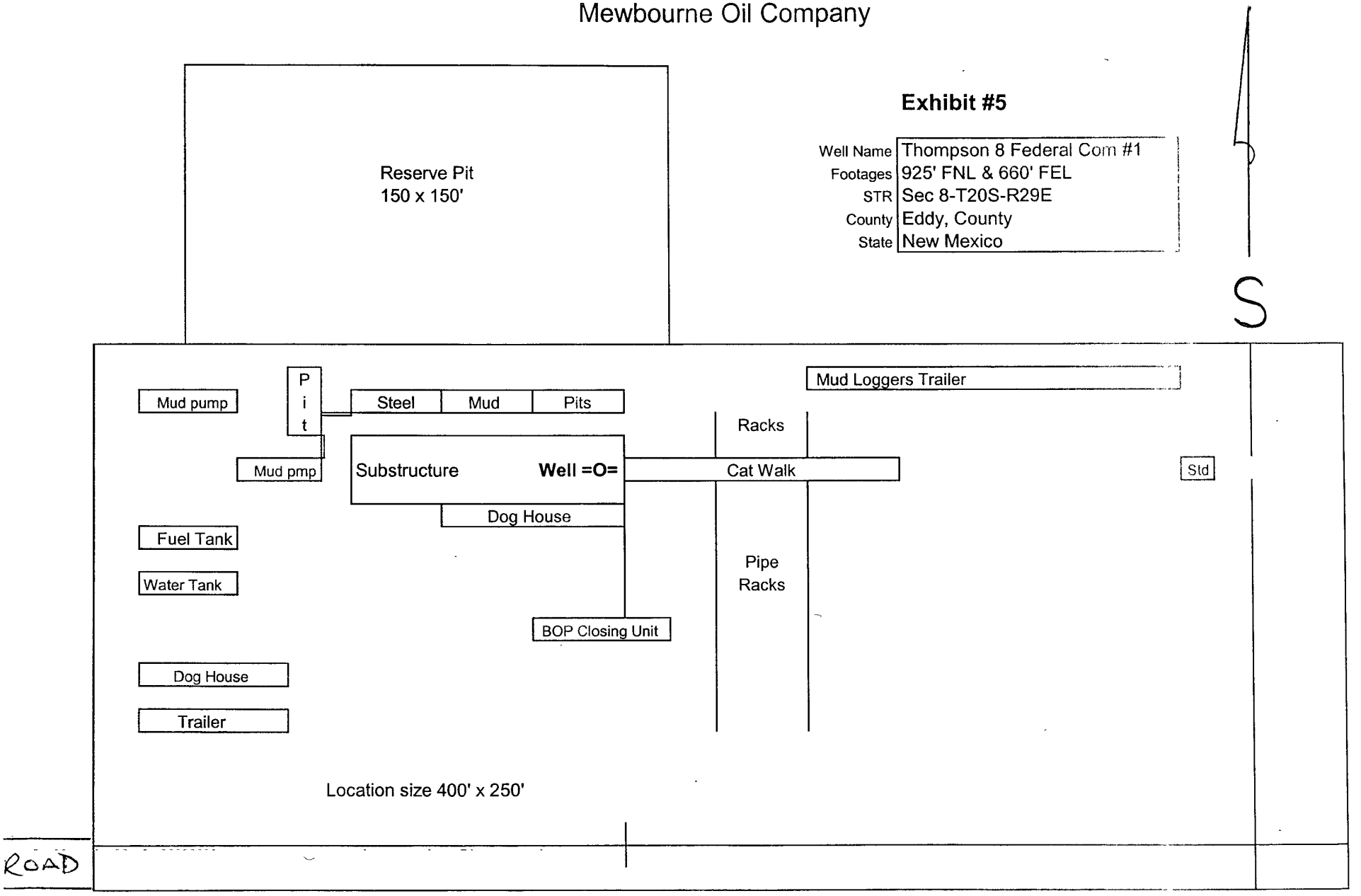
8. Anticipated Starting Date:

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

Exhibit #5

Well Name	Thompson 8 Federal Com #1
Footages	925' FNL & 660' FEL
STR	Sec 8-T20S-R29E
County	Eddy, County
State	New Mexico



Rig Location Schematic

Mewbourne Oil Company
BOP Scematic for
12 ¼" Hole

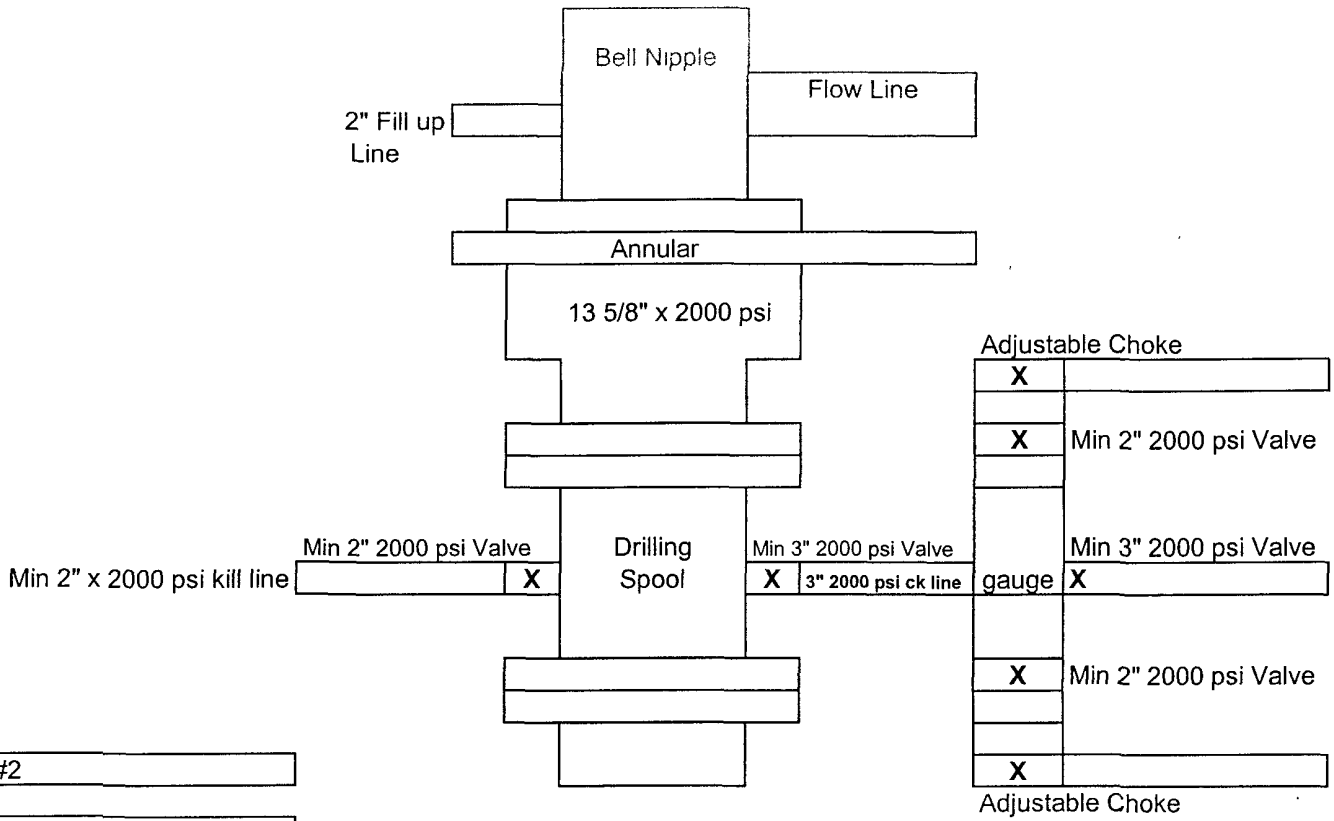


Exhibit #2

Thompson 8 Federal Com #1
925' FNL & 660' FEL
Sec 8-T20S-R29E
Eddy, County
New Mexico

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

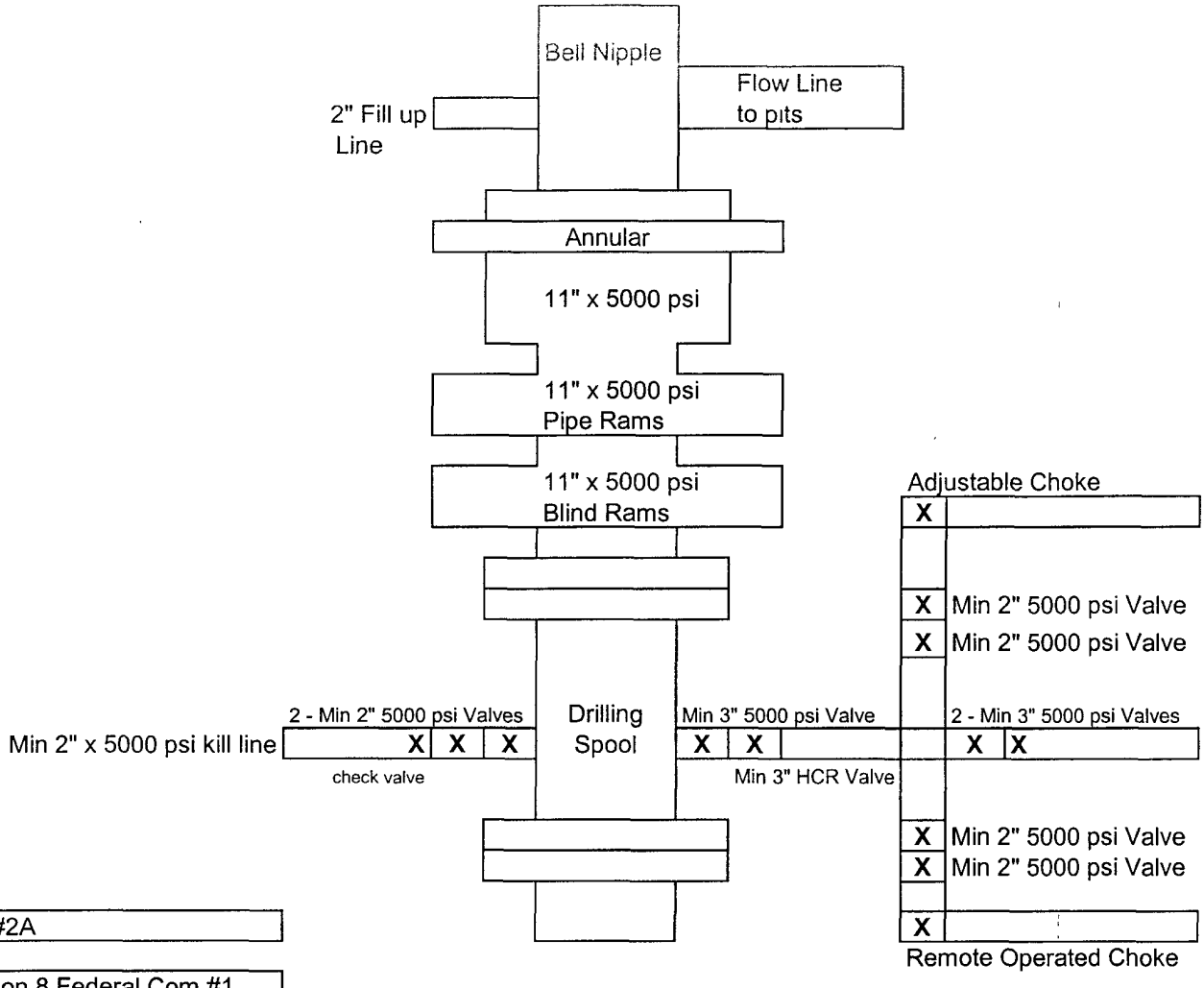


Exhibit #2A

Thompson 8 Federal Com #1
925' FNL & 660' FEL
Sec 8-T20S-R29E
Eddy, County
New Mexico

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Thompson "8" Federal Com #1
925' FNL & 660' FEL
Sec 8-T20S-R29E
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 5000 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 5000 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.

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company

Thompson "8" Federal Com #1

925' FNL & 660' FEL

Sec 8-T20S-R29E

Eddy 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 H2S were found. MOC will have on location and working all H2S safety equipment before the Yates formation @ 1100' 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 know 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.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Thompson "8" Federal Com #1
925' FNL & 660' FEL
Sec 8-T20S-R29E
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. Existing roads are highlighted in black. Proposed road is highlighted in green. Exhibit #3A is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in black and proposed roads are highlighted in blue.

B. Directions to location from Carlsbad, NM: Go East on US62/180 13.8 miles to Eddy Co 238 (Burton Flat Road). Turn left (north) and continue North 2.1 miles. Turn left (west) 3 miles. Turn right (north) and continue north, then west 1.3 miles. Turn right (north) and continue north 0.8 miles. Road will turn east. Turn left (north) and continue north 0.25 miles. Turn left (west) on new road 0.25 miles to location.

2. Proposed Access Road:

A Will need approx 1400' of new road.

B. The access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.

3. Location of Existing Wells:

There are producing wells within the immediate vicinity of the well site. Exhibit #4 shows the proposed well and existing wells within a one mile radius.

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.

7. 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.
C. Water produced during operations will be disposed of in the reserve pit.
D. 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.

8. Ancillary Facilities

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

9. 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.
C. The pad dimension of 400' X 250' has been staked and flagged.
D. An archaeological survey has been conducted on the proposed access road and location pad.

10. 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.

E. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

11. Surface Ownership:

The surface is owned by: Located entirely on federal surface.

12. Other Information:

A. Topography: Refer to the archaeological report for a detailed description of flora, fauna, soil characteristics, dwellings, and historical or cultural sites.

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

13. Operator's Representative:

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

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

14. 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: 05/31/07 Signature: NM Young by Krista Green

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

Exhibit #4
Status of Wells in Immediate Vicinity
Mewbourne Oil Company
Thompson "8" Federal Com #1
925' FNL & 660' FEL
Sec 8-T20S-R29E
Eddy County, New Mexico

Section 8-T20S-R29E

Operator:	Marathon Oil Company
Well Name:	Yates Federal #1
Unit letter:	N
Status:	Pumping
Field:	Burton Flat Morrow

Section 8-T20S-R29E

Operator:	Mewbourne Oil Company
Well Name:	Henry 8 Federal Com #1
Unit letter:	O
Status:	Pumping
Field:	East Burton Flat Morrow

Conditions of Approval
Cave and Karst

EA#: NM-080-07-0882
Lease #: NM-103878
Mewbourne Oil Company
Thompson 8 Fed. Com. #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 void (bit drops) of four feet or more and circulation losses greater then 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.

Delayed Blasting:
Any blasting will be a phased and time delayed.

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.

Differential Shut-off Systems:
A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

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 Company**
Well Name & No.	**Thompson 8 Federal Com # 1**
Location:	**925'FNL, 660'FEL, SEC8, T20S, R29E, Eddy County, NM**
Lease:	**NM-103878**

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

1. Spudding well
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822

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. 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 **20** inch surface casing shall be set at **300** **feet** and cemented 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 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
4. If cement falls back, remedial action will be done prior to drilling out that string.

B. The minimum required fill of cement behind the **13.375** inch intermediate casing is cement shall circulate to the surface. If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **9.625** inch intermediate casing is cement shall circulate to the surface. If cement does not circulate see A.1 thru 4. This string will be set below the Capitan Reef, in the Lamar limestone @ approximately 3100 feet.

D. The minimum required fill of cement behind the **4.5 or 5.5** inch production casing is cement shall circulate to at least **200 feet above the shoe of the 9.625 inch intermediate** casing or **200 feet above the most shallow lost circulation interval**, if circulation is lost while drilling the well bore for the 9.625" casing. **If N-80 casing is run, P-110 casing must be run for the top 1200 feet of 4.5 inch casing or the top 500 feet of 5.5 inch casing.**

E. If hardband 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 I 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 (BOP) and related equipment (BOPE) required for drilling below the 20 inch surface casing shoe shall be **2000** psi.

C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9.625** inch Intermediate casing shoe shall be **5000** psi.

D. 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 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, section 17. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
5. BOP/BOPE must be tested by an independent service company 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.

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.

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:

A. Our geologist has indicated that there is High potential for Cave / Karst features.
B. Our geologist has indicated that there is potential for lost circulation in the Artesia group, Delaware and Bone Spring.
C. Our geologist has indicated that there is potential for abnormal pressure in the Wolfcamp and Pennsylvanian System.

Engineering can be reached at 505-706-2779 for any variances necessary.

FWright 6/14/07

Mewbourne Oil Company

PO Box 5270
Hobbs, NM 88240
(505) 393-5905 office
(505) 397-6252 fax

July 16, 2007

Oil Conservation Division
1301 W Grand Ave
Artesia, NM
Attn: Bryan Arrant

Re: Approval letter

Attached is a sign off letter from Devon to drill the Thompson 8 Federal #1 (Sec 8-T20S-R29E). If you have any further questions, please call me.

Thanks
Kristi

MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020
MIDLAND, TEXAS 79701

(432) 682-3715
FAX (432) 685-4170

July 12, 2007

Email - ken.gray@dvn.com and
Certified Mail-Return Receipt No. 6382

Devon Energy Production Company, LP
20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102-8260
Attn: Mr. Ken Gray

RE: Thompson 8 Federal No. 1
925' FNL & 660' FEL
Section 8, T20S-R29E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company, as Operator, has proposed to drill the captioned well as the second Morrow test in the N/2 Section 8, T20S-R29E, Eddy County, New Mexico. Reference is made to that Letter Agreement dated November 22, 2005 wherein Devon Energy Production Company, LP agreed to allow Mewbourne to operate as to additional wells in the N/2 Section 8.

For NMOCD purposes, please indicate Devon's approval for Mewbourne to obtain the Application for Permit to Drill (APD) for the captioned well. Please have both copies of this letter signed by the appropriate Devon official and return one (1) copy to Mewbourne.

Thanks for your assistance in this matter.

Sincerely,

MEWBOURNE OIL COMPANY

Larry Cunningham
District Exploration Manager

The undersigned supports Mewbourne's APD for the referenced well and approves for Mewbourne to be designated as the Operator for such well. Devon shall remain the designated Operator for the Russell 8 Federal No. 1 well located in the NW/4 Section 8, T20S-R29E, Eddy County, New Mexico.

DEVON ENERGY PRODUCTION COMPANY, LP

By: Ken Gray
Name: KEN GRAY
Title: SR. LAND ADVISOR
Date: 7/12/07