Form 3160-3 (September 2001)

# Oil Cons. N.M. DIV-Dist. 2 1301 W. Grand Avenue Expires Jan Artesia, NM 882 O. Lease Serial No.

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

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANA(	NM-01119 6. If Indian, Allottee or Tribe Name					
APPLICATION FOR PERMIT TO DRILL OR REENTER						
. Type of Work: 🗹 DRILL 🔲 REENTER			7. If Unit or CA Agreement, Name and No.			
1b. Type of Well: Oil Well Gas Well Other	☑ Single Zone ☐ Multiple Zone			8. Lease Name and Well No. Avaion Lake "31" Federal #1		
2. Name of Operator  Mewbourne Oil Company 14744				9. API Well No.	175	
3a. Address	3b. Pho	ne No. (include area code)		10. Field and Pool, or Exp		
P.O. Box 5270 Hobbs, NM 88241	(505) 39	,		Burton Flat Morrow		
4. Location of Well (Report location clearly and in accordance with a			/En	11. Sec., T., R., M., or Blk. and Survey or Area		
At surface 1650' FSL & 1123' FWL At proposed prod. zone	,	JAN 1 4		Sec. 31; T20S; R28E		
14. Distance in miles and direction from nearest town or post office*		OCD-ART	ESIA	12. County or Parish	13. State	
5 miles NE Carlsbad	· · · · · · · · · · · · · · · · · · ·			Eddy	NM	
15. Distance from proposed* location to nearest property or lease line, ft.			cing Unit dedicated to this well			
(Also to nearest drig. unit line, if any) 1123'	320 320					
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.				M/BIA Bond No. on file  93, Nationwide		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start* January 05, 2004		23. Estimated duration			
3279' GL			4 5 days			
	24.	Attachments				
The following, completed in accordance with the requirements of Onsho	re Oil an	d Gas Order No.1, shall be att	ached to th	is form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	Lands, t	Item 20 above). 5. Operator certification	ation. pecific inf	ns unless covered by an existence of the contraction and/or plans as n	-	
25. Signature	1	Name (Printed/Typed)		Da	ite	
Jun Buke		Terry Burke		12	12-05-03	
Title						
Drilling Foreman						
Approved by (Signature) /s/ Joe G. Lara		Name (Printed/Typed)	/s/ Joe	G. Lara	1 3 JAN 2004	
ACTINGIELD MANAGER		Office CARLS	BAD F	FIELD OFFICE		
Application approval does not warrant or certify that the applicant holds operations thereon.  Conditions of approval, if any, are attached.	legal or e	equitable title to those rights in		t lease which would entitle the PROVAL FOR		

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

Carlabad Controlled Water Basin

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

Revised March 17, 1999 instruction on back Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

# OIL CONSERVATION DIVISION

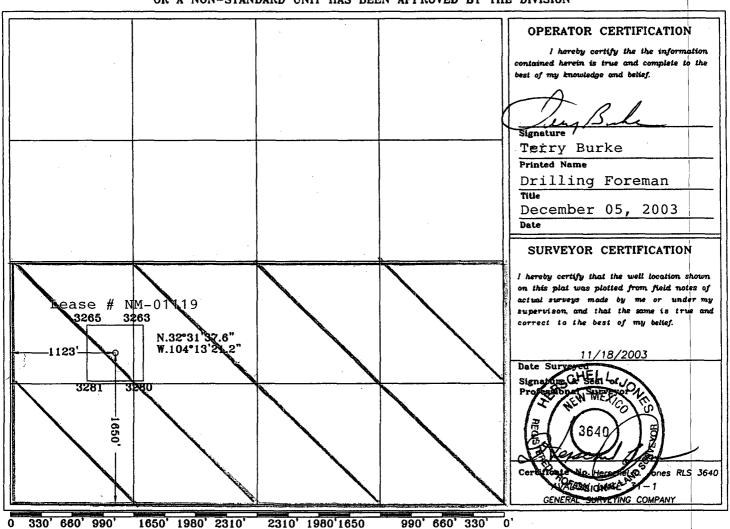
P.O. Box 2088 Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

M. I. 17	API Number Pool Code					Pool Name		1		
						Burton	Flat Morro	W	į	
Property Co	ode	Property Name						Well Numbe		
			AVALON LAKE "31" FEDERAL							
OGRID No.					Operator Nan	ne .		Elevation		
14744		}	MEWBOURNE OIL COMPANY						3279	
					Surface Loc	ation			· · · · · · · · · · · · · · · · · · ·	
L or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
L	31	20S	28E		1650	SOUTH	1123	WEST	EDDY	
		•	Bottom	Hole Loc	cation If Diffe	erent From Sur	face			
L or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Or	der No.	<u> </u>		<u> </u>	1	
320										

# OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



#### **Drilling Program**

Mewbourne Oil Company
Avalon Lake "31" Federal # 1
1650' FSL & 1123' FWL
Section 31 -T20S-R28E
Eddy County, New Mexico
Lease Number NM-01119

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

3,508'
5,419'
9,150'
10,000'
10,500'
10,950'
11,500'

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

Water

Approximately 200'

**Hydrocarbons** 

All zones below Wolfcamp

#### 3. Pressure control equipment:

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

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

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

#### **Drilling Program**

#### Mewbourne Oil Company

Avalon Lake "31" Federal # 1 Page 2

### 4. Proposed casing and cementing program:

#### A. Casing Program:

Hole Size	Casing	Wt/Ft.	<u>Grade</u>	Depth
17-1/2"	13-3/8"	48#	J55	0-400'
12-1/4"	9-5/8"	40#	N80/J55	0-2,400'
8-3/4"	5-1/2"	17#	P110/S95	0-11,500'

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

#### B. Cementing Program

- i. <u>Surface Casing</u>: 200 sacks Class "C" light cement containing
   .25 lbs/sack cellophane flakes, 2% CaCl, 6% bwoc Bentonite. 200 sacks Class "C" cement containing 2% CaCl.
- ii. <u>Intermediate Casing:</u> 500 sacks 35:65 pozmix cement containing 6% gel,5 lbs/sack LCM-1. 200 sacks Class "C" cement containing 2% CaCl.
- iii. Production Casing: 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing and multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

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

### 5. Mud Program:

<u>Interval</u>	Type System	<u>Weight</u>	<b>Viscosity</b>	Fluid Loss
0'-400'	FW spud mud	8.6-9.4	32-34	NA
400' - 2400'	FW spud mud	10.0	32-34	NA
2400'-8800'	Fresh water	8.8-9.2	28-30	NA
8,800'-11,500	' Cut brine water	9.2-10.0	32-42	8-12

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

#### **Drilling Program**

## **Mewbourne Oil Company**

Avalon Lake "31" Federal # 1

Page 3

#### 6. **Evaluation Program:**

Samples:

10'samples from intermediate casing to TD

Logging:

Compensated density and dual laterlog from intermediate

casing

to TD

Coring:

As needed for evaluation

**Drill Stem Tests:** 

As needed for evaluation

#### 7. **Downhole Conditions**

Zones of abnormal pressure:

None anticipated

Zones of lost circulation:

Anticipated in surface and intermediate holes

Maximum bottom hole temperature:

180 degree F

Maximum bottom hole pressure: 8.3 lbs/gal gradient or less

#### 8. **Anticipated Starting Date:**

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

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Avalon Lake "31" Federal # 1 1650' FSL & 1123' FWL Section 31-T20S-R28E Eddy County, New Mexico Lease Number NM-01119

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 red and proposed roads are highlighted in yellow.
- B. Directions to location: From Hobbs West on 62/180 approx 65 miles to Carlsbad truck bypass. Turn right on bypass and continue to junction of Eddy County CR206. (Illinois Camp Road) Go North on CR206 approx. 3 miles turn NorthEast go 4/10 mile turn SouthEast go 3/10 mile then turn right and go 2/10 mile to new lease road and location.

#### 2. Proposed Access Road:

- A The access to our new location will be from existing lease 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.
- C. Access to location has an existing grade to facilitate adequate drainage.

#### 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. If the well is productive, restoration plans are as follows:

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

#### **MEWBOURNE OIL COMPANY**

Avalon Lake "31" Federal # 1

Page 2

- i. The reserve pit will be back-filled after the contents of the pit are allowed to dry (within 10 months after the well is completed).
- ii. 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
- iii. 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.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Page 3

#### 9. Well Site Layout

Avalon Lake "31" Federal # 1

- 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 600' X 600' 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 per BLM guidelines. 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 with a mixture of native grasses as stipulated by the BLM.
- 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 treated as outlined above within the prescribed amount of time. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.

#### 11. Surface Ownership:

The surface is owned by: But

Bureau of Land Management

#### 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.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Avalon Lake "31" Federal # 1 Page 4

#### 13. Operator's Representative:

A. Through APD approval and drilling operations:

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

B. Through completion and production operations:

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

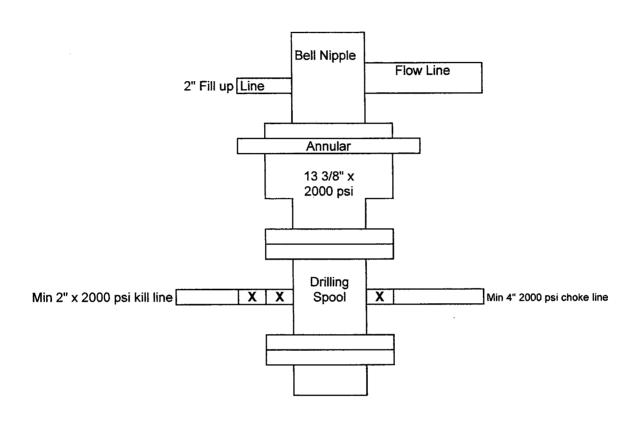
#### 14. Certification

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:	12/1/03	Signature:	M. Milley	
			7 1	

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

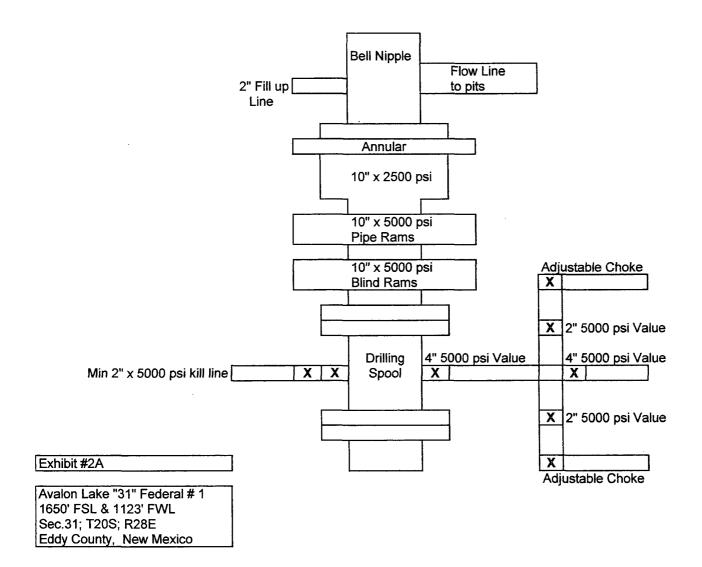
#### Mewbourne Oil Company BOP Scematic for 12 1/4" Hole



#### Exhibit #2

Avalon Lake "31" Federal # 1 1650' FSL & 1123' FWL Sec.31; T20S; R28E Eddy County, New Mexico

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



# Notes Regarding Blowout Preventer

Mewbourne Oil Company Avalon Lake "31" Federal # 1 1650' FSL & 1123' FWL Section 31- T20S-R28E Eddy County, New Mexico

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

New Mexico, United States, North America

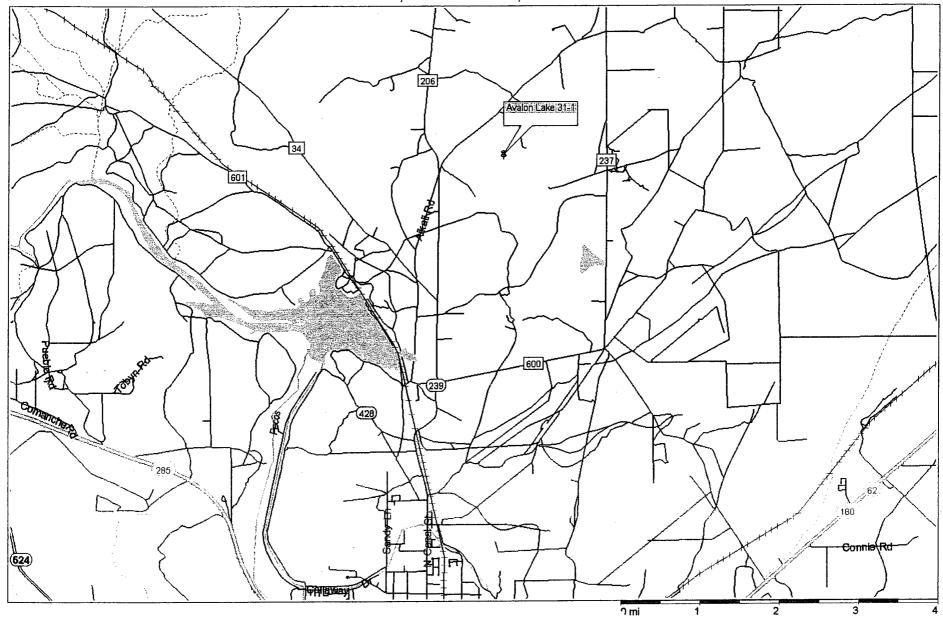
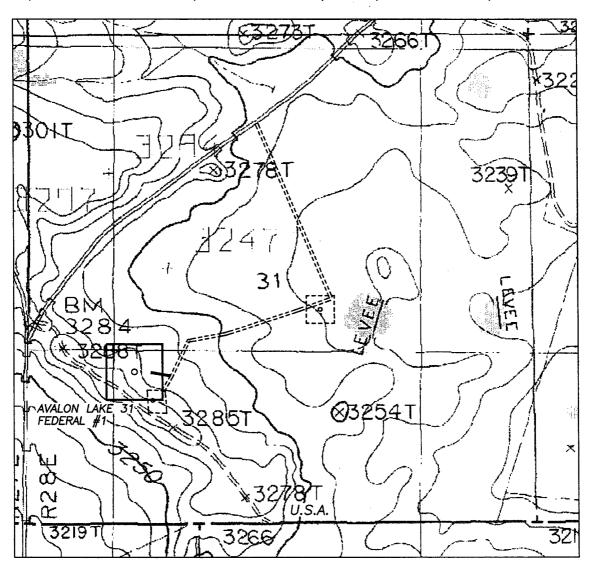
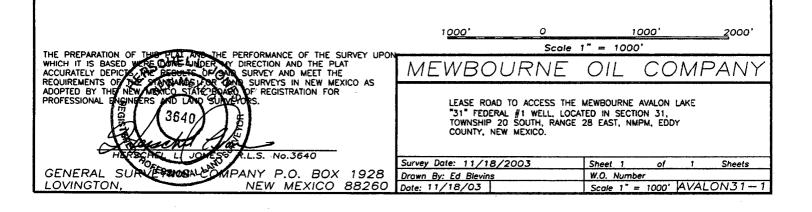


Exhibit 3

SECTION 31, TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO.



# Exhibit 3A



# Exhibit #4 **Status of Wells in Immediate Vicinity**

**Mewbourne Oil Company** 

Avalon Lake "31" Federal # 1 1650' FSL & 1123' FWL Section 31 T-20S R-28E Eddy County, New Mexico Lease Number NM-01119

## **Section 31 T-20S R-28E**

Operator:

Exxon Corp.

Well Name: Yates "C" Federal # 1

Unit letter:

С

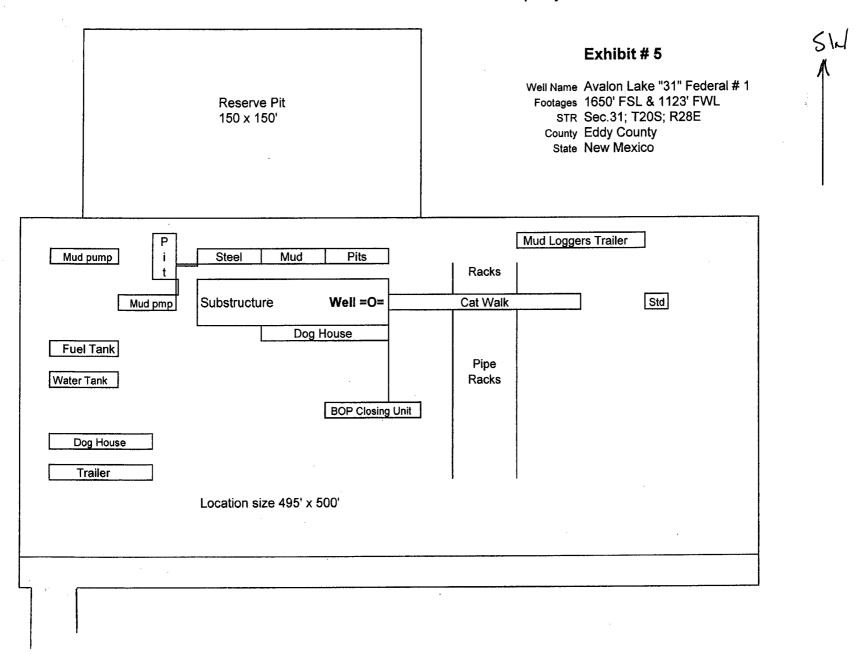
Status:

Producing

Field:

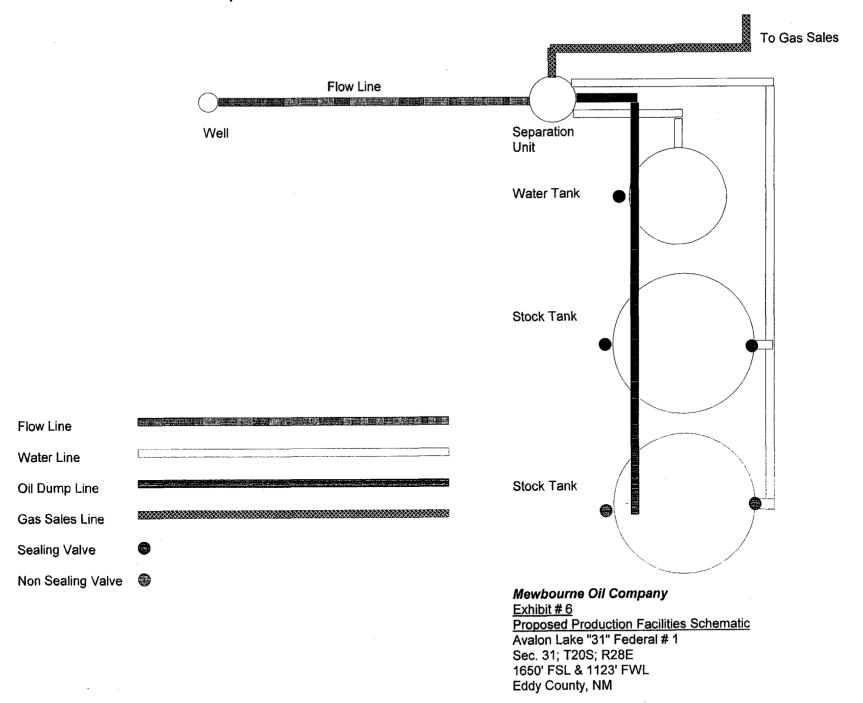
Burton Flats Morrow

# Mewbourne Oil Company



Rig Location Schematic

## **Proposed Production Facilities Schematic**



### **Hydrogen Sulfide Drilling Operations Plan**

Mewbourne Oil Company Avalon Lake "31" Federal # 1 1650' FSL & 1123' FWL Section 31 -T20S-R28E 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.
- The proper use of personal protective equipment and life support systems.
- 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:

- 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.

#### 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. <u>Hydrogen Sulfide Protection and Monitoring Equipment</u>

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. <u>Visual Warning Systems</u>

- A. Wind direction indicators as indicated on the wellsite diagram.
- B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

#### 3. Mud Program

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

#### 4. Metallurgy

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

#### 5. Communications

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

#### 6. Well Testing

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

#### 7. General Requirements

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

### 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 5570

City, State:

Hobbs, New Mexico

Zip Code:

88241

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 NM-01119

Legal Description of Land:

Section 31, T20S, R28E, Eddy County, New Mexico. Location

1650' FSL & 1123' FWL of Section 31.

Formation (if applicable):

Bond Coverage:

\$150,000

BLM Bond File:

NM1693, Nationwide

Authorized Signature:

Name: NM (Micky) Young

Title: District Manager

Date: December, 2003