

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

Form 3160-3  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APR 16 2004

OED-ARTESIA

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OMB No. 1004-0136  
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER

b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Yates Petroleum Corporation

3A. Address 105 South Fourth Street  
Artesia, New Mexico 88210

3b. Phone No. (include area code)  
(505) 748-1471

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface 660' FSL and 1980' FEL  
At proposed prod. Zone same as above

14. Distance in miles and direction from nearest town or post office\*

Approximately twenty-eight (28) miles Northeast from Roswell, NM

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

17. Spacing Unit dedicated to this well

320 acres

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

19. Proposed Depth  
5330'

20. BLM/BIA Bond No. on file

NM-2811

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3761' GL

22. Approximate date work will start\*

ASAP

23. Estimated duration

30 Days

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 office.

25. Signature

Name (Printed/Typed)

Date

Robert Asher

2/27/04

Email: debbiec@ypcnm.com

Title: Regulatory Agent/Land Department

Approved by (Signature)

/S/LARRY D. BRAY

Name (Printed/Typed)

/S/LARRY D. BRAY

Date

APR 14 2004

Title

Assistant Field Manager,  
Lands And Minerals

Office

ROSWELL FIELD OFFICE

APPROVED FOR 1 YEAR

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.

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)

CEMENT TO COVER ALL OIL,  
GAS AND WATER BEARING  
ZONES

District I  
1625 N. French Dr., Hobbs, NM 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

District II  
811 South First, Artesia, NM 88210

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

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code		<sup>3</sup> Pool Name <b>Wildcat Basement</b>	
<sup>4</sup> Property Code		<sup>5</sup> Property Name <b>Cottonwood Federal</b>			<sup>6</sup> Well Number <b>4</b>
<sup>7</sup> OGRID No. <b>025575</b>		<sup>8</sup> Operator Name <b>Yates Petroleum Corporation</b>			<sup>9</sup> Elevation <b>3761'</b>


<sup>10</sup> Surface Location

UL or lot no. <b>O</b>	Section <b>26</b>	Township <b>6S</b>	Range <b>25E</b>	Lot Idn	Feet from the <b>660</b>	North/South line <b>South</b>	Feet from the <b>1980</b>	East/West line <b>East</b>	County <b>Chaves</b>
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<sup>11</sup> 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
<sup>12</sup> Dedicated Acres <b>320</b>		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A  
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<sup>16</sup>						<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature <b>Robert Asher</b> Printed Name <b>Regulatory Agent</b> Title <b>02/27/2004</b> Date
						<sup>18</sup> 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. REFER TO ORIGINAL PLAT Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

NM-15863

1980'

660'

**YATES PETROLEUM CORPORATION**  
**Cottonwood Federal #4**  
660' FSL and 1980' FEL  
Section 26-T6S-R25E  
Chaves County, New Mexico

1. The estimated tops of geologic markers are as follows:

San Andres	495'	Wolfcamp	4410'
Glorieta	1480'	Cisco	4895'
Yeso	1560'	Strawn	5045'
Tubb	2995'	Granite	5180'
Abo	3630'	TD	5330'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 250'-350'  
Oil or Gas: All potential formations.

3. Pressure Control Equipment: BOPE will be installed on the 11 3/4" casing and rated for 2000# BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

**Auxiliary Equipment:**

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

- A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>	
14 3/4"	11 3/4"	42#	H-40	ST&C	0-900'	900'	
11"	8 5/8" *	24#	J-55	ST&C	0-1500'	1500'	
7 7/8"	5 1/2"	15.5#	J-55	ST&C	0-5330'	5330'	

\*- 8 5/8" will only be set if lost circulation is encountered.

1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, and Tensile Strength 1.8
2. YPC requests a variance to be granted in requiring the casing and BOPE to be tested to 2000 psi to testing the casing and BOPE to 1000 psi. The rig pumps will be used to test the casing and BOPE. Rig pumps used in this area cannot safely test above 1000 psi. We would have to go to the greater expense of hiring an independent service company to do the testing. Also, the bottom hole pressure in this field is proven to be near 1000 psi. A shut in surface pressure would be less than 1000 psi. We feel that a 1100 psi test will demonstrate that the BOPE is functioning properly, and in the unlikely event of a gas influx that the BOPE would be sufficient to control the well.

No CW

**B. CEMENTING PROGRAM:**

Surface Casing: Cement with 350 sx Lite "C" (YLD 2.0 WT 12.5). Tail in with 200 sx "C" + 2% CaCl<sub>2</sub> (YLD 1.33 WT 15.6).

Intermediate Casing: 250 sx class C + 2% CaCLW (YLD 1.32 WT 14.8)

Production Casing: 500 sx PVL (YLD 1.34 WT 13). TOC 3100'.

**5. MUD PROGRAM AND AUXILIARY EQUIPMENT:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-900'	FW GEL/Paper/LCM	8.6-9.6	32-36	N/C
900'-3580'	Cut Brine/Brine	9.0-10.2	28	N/C
3580'-5330'	Starch/Salt Gel	9.3-10.2	32-40	<6CC

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

**6. EVALUATION PROGRAM:**

Samples: 10' samples out from under surface casing.

Logging: Platform Express, CNL/LDT W/NGT to TD to surface casing, w/ GR/CNL TD to surface, DLL/MSFL TD to surface casing, BHC Sonic TD to surface casing; FMI TD - top of Wolfcamp.

Coring: Sidewall

DST's: None

**7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:**

Anticipated BHP:

From: 0	TO: 900'	Anticipated Max. BHP: 375 PSI
From: 900'	TO: 5330'	Anticipated Max. BHP: 2700 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H<sub>2</sub>S Zones Anticipated: None Anticipated

Maximum Bottom Hole Temperature: 110 F

**8. ANTICIPATED STARTING DATE:**

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 15 days to drill the well with completion taking another 15 days.

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**YATES PETROLEUM CORPORATION**  
**Cottonwood Federal #4**  
**660' FSL and 1980' FEL**  
**Section 26-T6S-R25E**  
**Chaves 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 rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

**1. EXISTING ROADS:**

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 28 miles northeast of Roswell, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

**DIRECTIONS:**

Go north of Roswell on Highway 285 for approx 23 miles to Cottonwood Road. Turn right (east) and drive approx. 12 miles where the access road is staked on the left (north) side going north approx. 625' to the southwest corner of the location.

**2. PLANNED ACCESS ROAD:**

- A. The proposed new access will be approximately 625' in length from the point of origin to the southwest corner of the drilling pad.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. The new road will be bladed with drainage on both sides. No traffic turnout will be built.
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition.

**3. LOCATION OF EXISTING WELL:**

- A. There is drilling activity within a one-mile radius of the well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:**

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

**5. LOCATION AND TYPE OF WATER SUPPLY:**

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources, possibly in Roswell, and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

**6. SOURCE OF CONSTRUCTION MATERIALS:**

The dirt contractor will be responsible for finding a source of material for construction of road and pad and will obtain any permits, which may be required.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

**8. ANCILLARY FACILITIES: NONE**

**9. WELLSITE LAYOUT:**

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' x 400' area has been staked and flagged.

**10. PLANS FOR RESTORATION:**

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.

11. SURFACE OWNERSHIP: The location is on Federal surface administered by the BLM, Roswell, New Mexico.
12. OTHER INFORMATION:
- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.
- B. The primary surface use is for grazing.
13. OPERATOR'S REPRESENTATIVE:
- |  |   |
|--|---|
| A. Through A.P.D. Approval:<br>Robert Asher, Regulatory Agent<br>Yates Petroleum Corporation<br>105 South Fourth Street<br>Artesia, New Mexico 88210<br>Phone (505) 748-1471 | B. Through Drilling, Completions & Prod.<br>Pinson McWhorter, Operations Manager<br>Yates Petroleum Corporation<br>105 South Fourth Street<br>Artesia, New Mexico 88210<br>Phone (505) 748-1471 |
|--|---|
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 presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation and its contractors and subcontractors in conformity 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.

02/27/04

  
Regulatory Agent

## DISTRICT I

811 South First, Artesia, NM 88210

## DISTRICT III

1000 Rio Brakes Rd., Aztec, NM 87410

## DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

## 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
		Wildcat Basement
Property Code	Property Name	Well Number
	COTTONWOOD FEDERAL	4
OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORPORATION	3761

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	26	6S	25E		660	SOUTH	1980	EAST	CHAVES

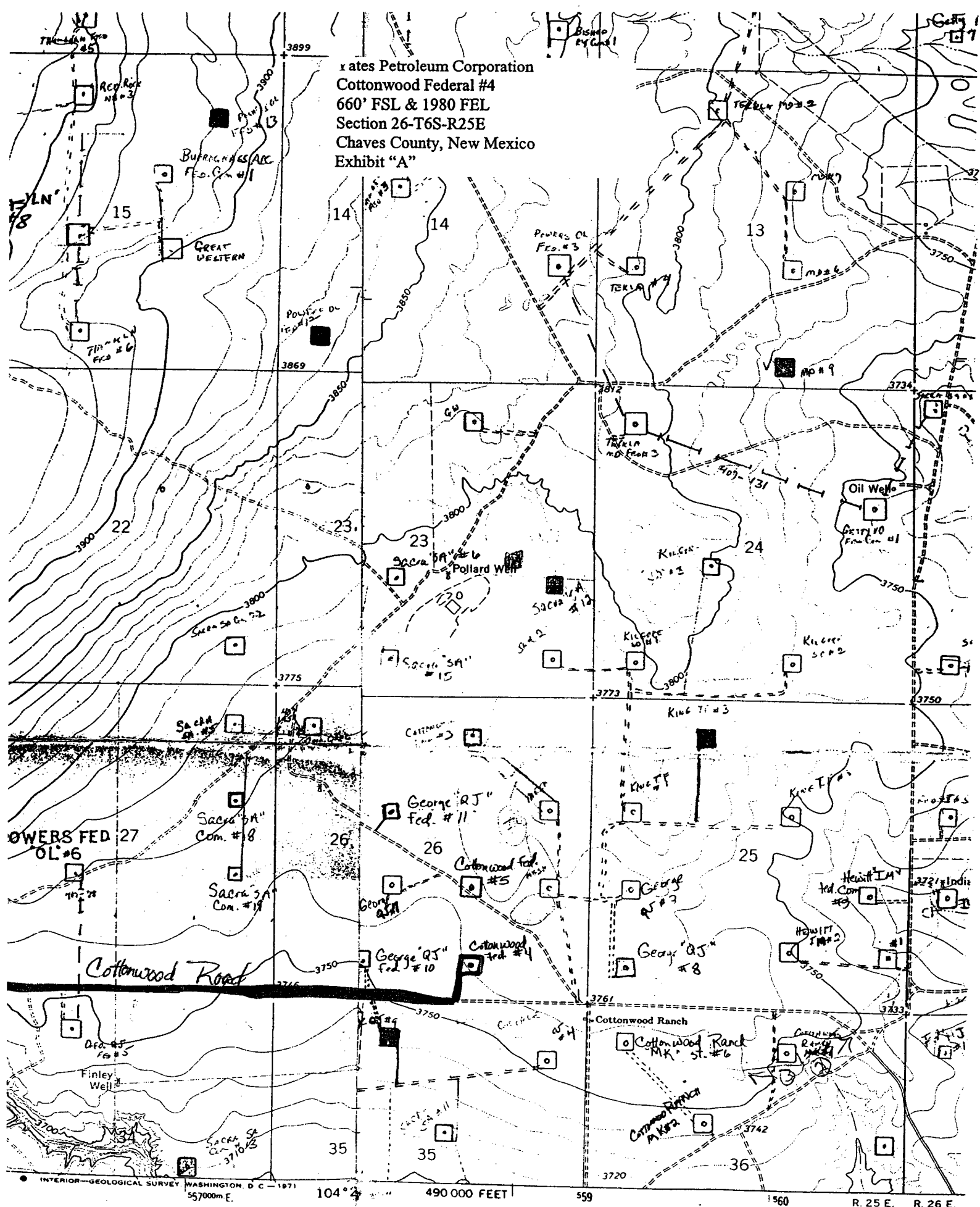
## Bottom Hole Location If Different From Surface

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

			<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  <u>Patricia Perez</u> Signature Patricia Perez Printed Name Regulatory Agent Title 12/18/01 Date
		<b>NM-15843</b>  	<b>SURVEYOR CERTIFICATION</b>  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.  11/08/2001 Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Herschel Jones RLS 3640 COTTONWOOD 4 GENERAL SURVEYING COMPANY
		N.33°45'38.2" W.104°22'09.3" 3757 3763 3756 3761	





Map designed, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial  
photographs taken 1966. Field checked 1967

ROAD CLASSIFICATION

GN



# Yates Petroleum Corporation

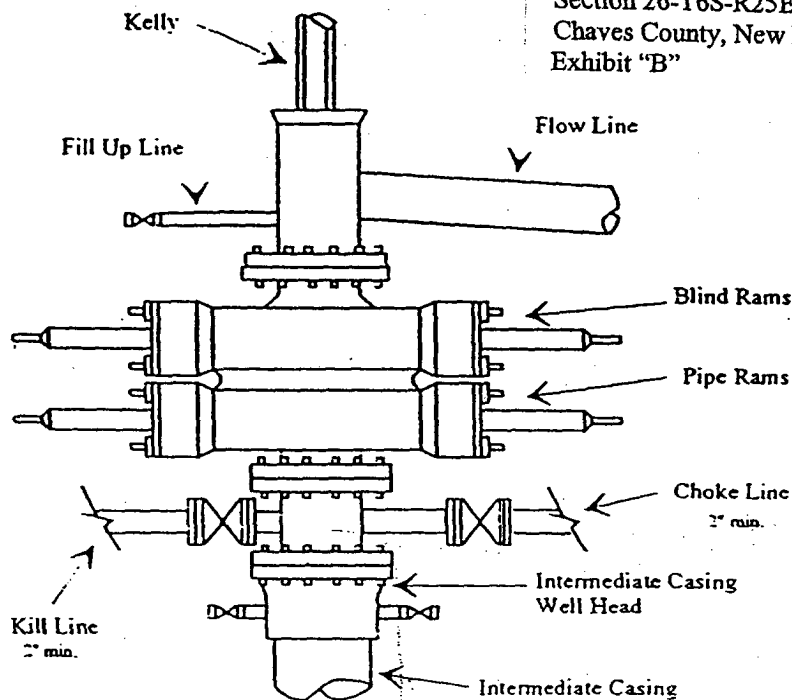
BOP-2

Typical 2,000 psi Pressure System

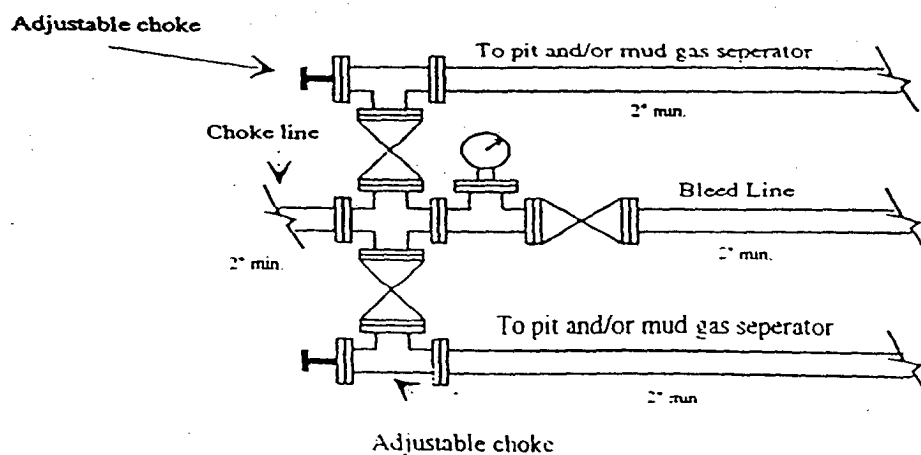
Schematic

Double Ram Preventer Stack

Yates Petroleum Corporation  
Cottonwood Federal #4  
660' FSL & 1980 FEL  
Section 26-T6S-R25E  
Chaves County, New Mexico  
Exhibit "B"

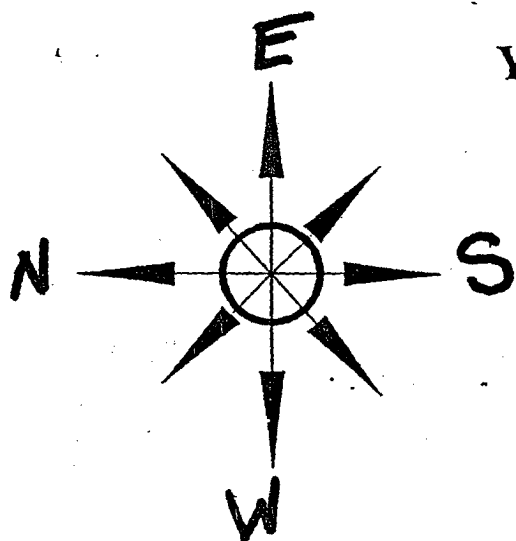


Typical 2,000 psi choke manifold assembly with at least these minimum features

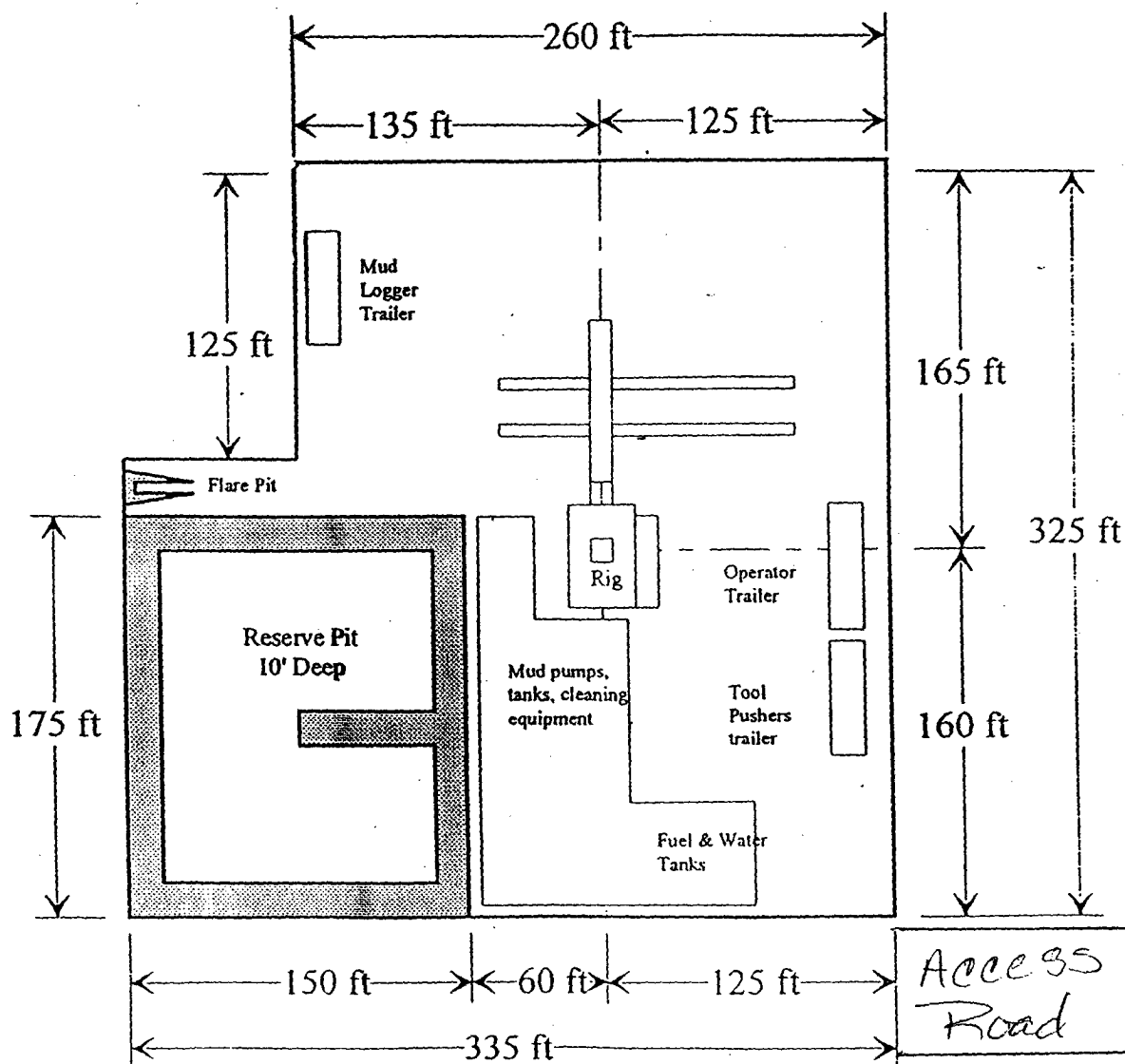


# Yates Petroleum Corporation

Location Layout for Permian Basin  
Up to 12,000'



Yates Petroleum Corporation  
Cottonwood Federal #4  
660' FSL & 1980 FEL  
Section 26-T6S-R25E  
Chaves County, New Mexico  
Exhibit "C"



Distance from Well  
Head to Reserve Pit  
will vary between rigs

The above dimension  
should be a maximum

Yates Petroleum Corporation  
Cottonwood Federal #4  
660' FSL & 1980 FEL  
Section 26-T6S-R25E  
Chaves County, New Mexico  
Exhibit "D"

# EXHIBIT A

Operator: Yates Petroleum Corporation

BLM Serial Number: NM-15863

Well Name & NO.: Cottonwood Federal #4

Location: Section 26, T. 6 S., R. 25 E.

660' FSL & 1980' FEL, Chaves County, N.M.

