

Form 3160-3
(August 1999)

SEP 2002
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OCD - ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 Drilling Company

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 1370' FSL & 1650' FEL
At proposed prod. Zone same as above

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

Approximately 26 miles north of Maljamar, New Mexico

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

80

17. Spacing Unit dedicated to this well

40

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

19. Proposed Depth
3100'

20. BLM/BIA Bond No. on file

586000

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

4432' 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

Pat Perez

Name (Printed/Typed)

Pat Perez

Date

5/21/02

Title:

Regulatory Agent

Approved by (Signature)

Name (Printed/Typed)

(ORIG. SIGN. APPROVED A. LUTZ)

Date

SEP 19 2002

Title

Assistant Field Manager,
Acting Lands And Minerals

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.

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)

OPER. OGRID NO. 25513
PROPERTY NO. 11900
POOL CODE 12110
EFF. DATE 10-7-02
API NO. 30-005-21178

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

TRACTUS QUEEN 18
GENERAL SURVEYING COMPANY

YATES DRILLING COMPANY
Cactus Queen Unit #18
1370' FSL and 1650' FEL
Section 27, T12S-R31E
Chaves County, New Mexico

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

Rustler	1431'
Salt Top	1510'
Salt Base	2090'
Yates	2223'
Seven Rivers	2361'
Queen	2975'
TD	3100'

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

Water: 150'-300'
Oil or Gas: Queen Formation.

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" 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:

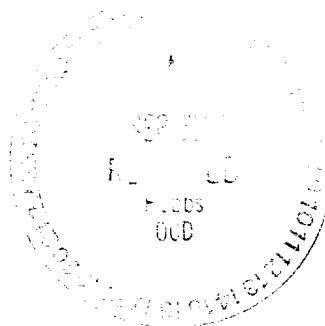
- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

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>
12"	8 5/8"	24#	J-55	ST&C	0-400' 450'
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-3100'

1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8



B. CEMENTING PROGRAM:

Surface Casing: 250 sx Class "C" (YLD 1.32 WT 14.8).

Production Casing: 350 sx Lite "C" (YLD 2.0 WT 12.5). Tail in with 250 sx Class C + 2% CaCl₂ (YLD 1.32 WT 14.8)

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-400'	FW /Native Mud	8.4 - 9.4	28-34	N/C
400'-2900'	Cut Brine/Brine	9.0 - 10.0	28	N/C
2900'-3100'	Brine/Starch	10 -10.2	28	<15/cc

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: CNL/LDT, W/NGT TD-Surf csg; DLL/MSFL/GR TD to Surf csg.
BHC Sonic TD-SURF CSG

Coring: None

DST's: None.

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

Anticipated BHP:

From: 0 TO: 400'

Anticipated Max. BHP: 175 PSI

From: 400' TO: 3100'

Anticipated Max. BHP: 1300 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H₂S 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 10 days to drill the well with completion taking another 20 days.



MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Cactus Queen Unit #18
1370' FSL and 1650' FEL
Section 27-T12S-R31E
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 wellsite is located approximately 26 miles north of Maljamar, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go East of Maljamar, NM on HWY 82 for approx. 1 mile to the intersection of 82 and 249. Take 249 North for approx. 5.7 miles and 249 turns West and 172 continues North. Take 172 North for approx. 20.5 miles. There will be a cattle guard with a locked gate on the West side of the road. Turn left thru the cattle guard and then take the right fork. Follow the road for approx. 0.35 of a mile and road turns West. Go West approx. 700' and the new road will start here and go North approx. 400' to the SE corner of the pad.

2. PLANNED ACCESS ROAD:

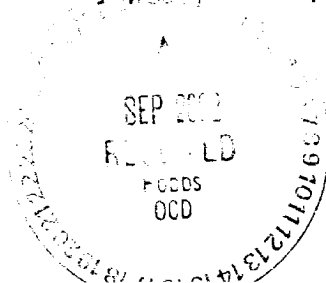
- A. The proposed new access will be approximately 400' in length from the point of origin to the southeast corner of the drilling pad. The road will lie in a northerly direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. 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 wellsite.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

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.



Cactus Queen Unit #18

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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 and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate nearest pit and obtain any permits and materials needed for construction.

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 land fill. 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 wellsite 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.

Cactus Queen Unit #18
Page 3

11. SURFACE OWNERSHIP: Split Estate with the surface belonging to Mr. W. T. Tivis, Eunice, New Mexico. Mr. Tivis and Yates Drilling Company have reached an agreement as to the operations to be conducted on his private surface.

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:
Pat Perez, Regulatory Agent
Yates Drilling Company
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471

B. Through Drilling, Completions & Prod.
Toby Rhodes, Vice-President
Yates Drilling Company
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 746-0308

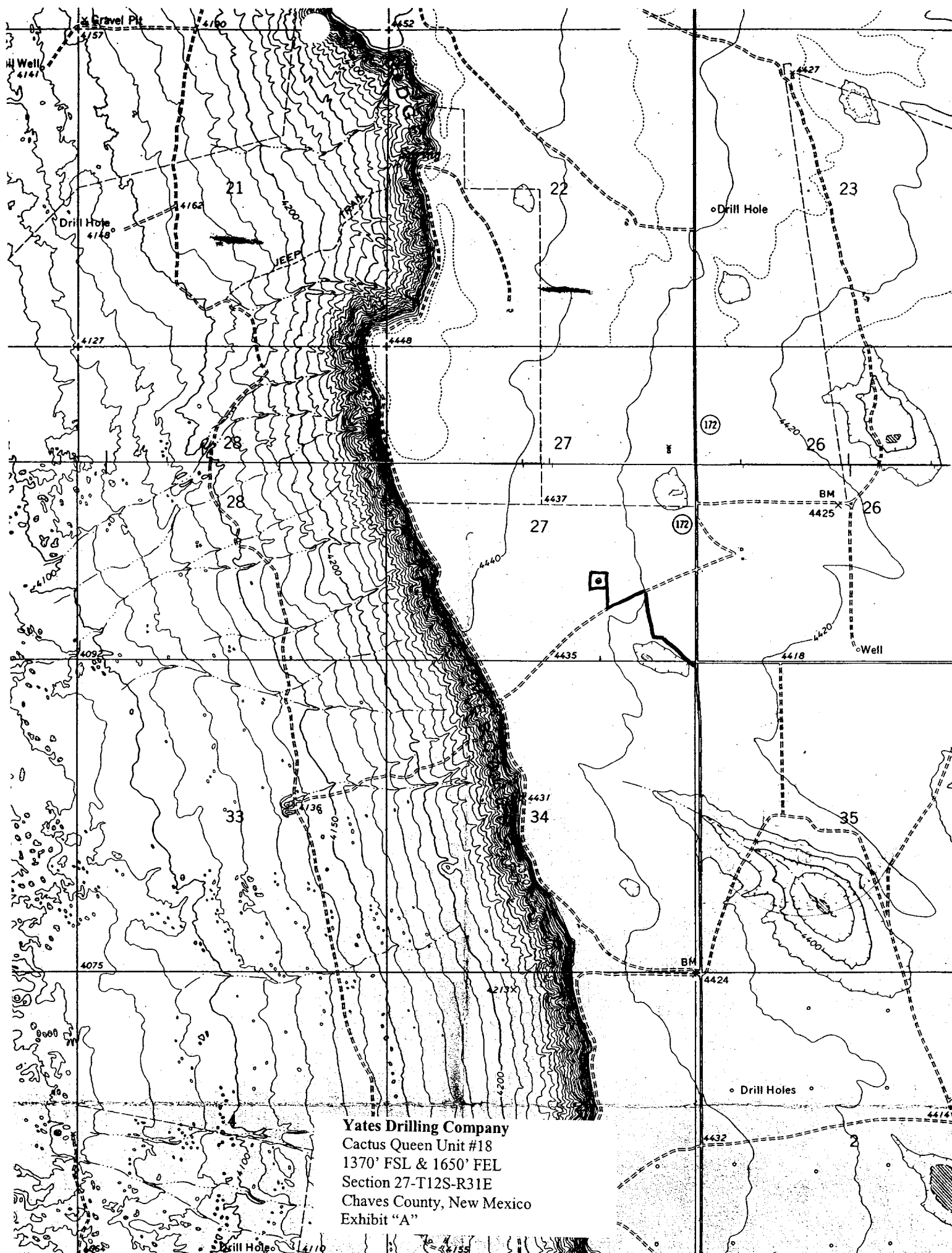
14. CERTIFICATION:

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 Drilling Company 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.

5/21/2002

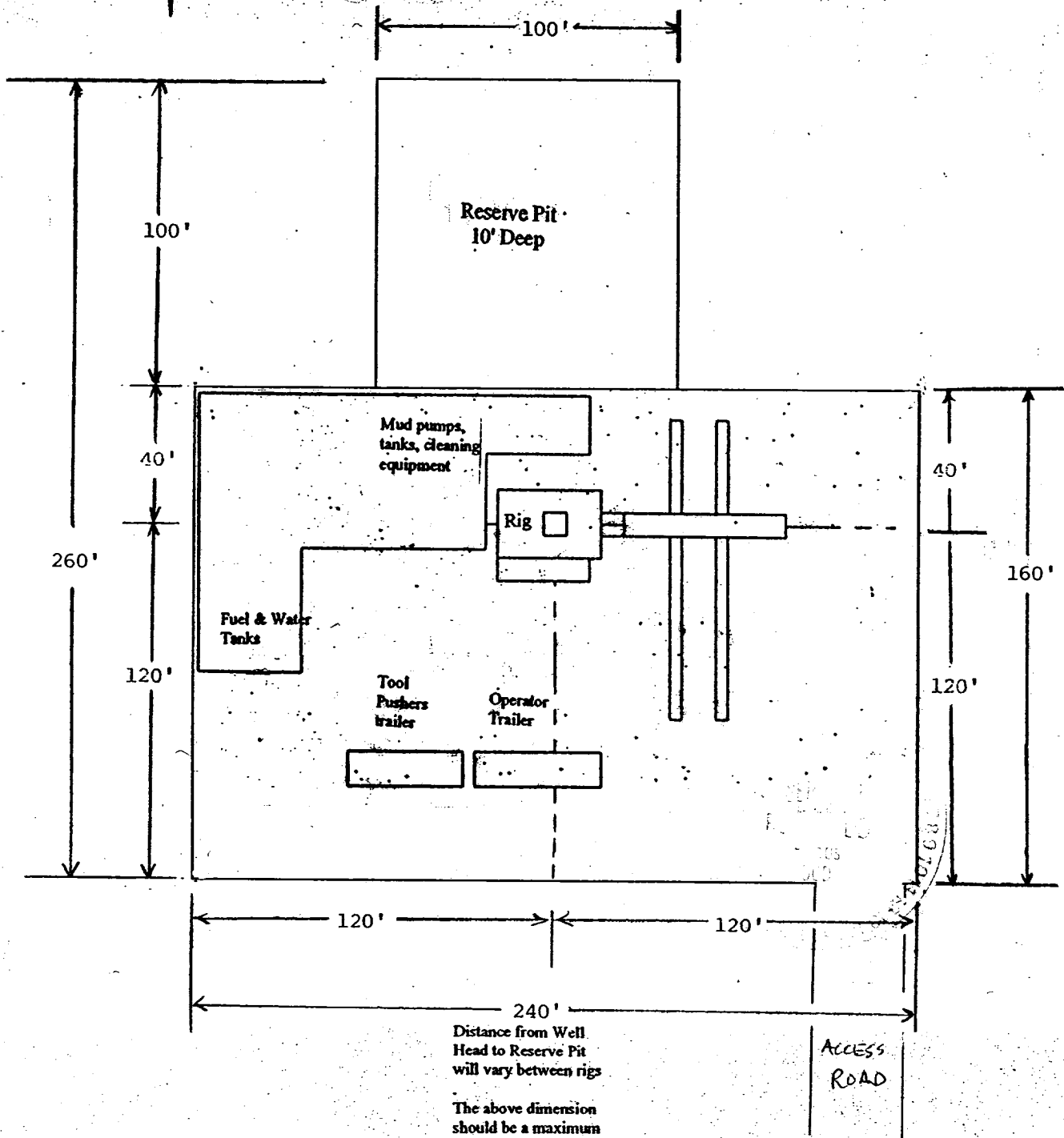

Regulatory Agent







Yates Drilling Company
Cactus Queen Unit #18
1370' FSL & 1650' FEL
Section 27-T12S-R31E
Chaves County, New Mexico
Exhibit "B"

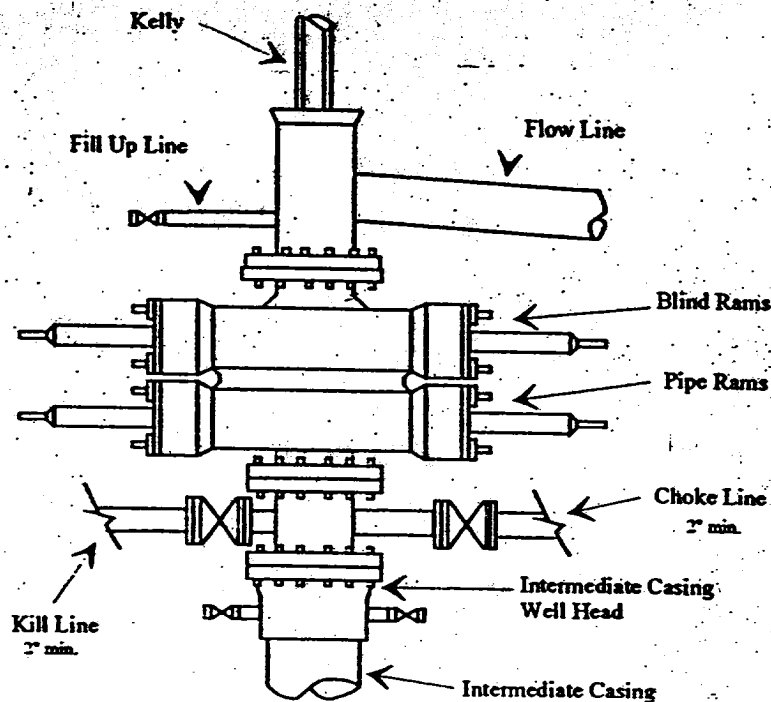




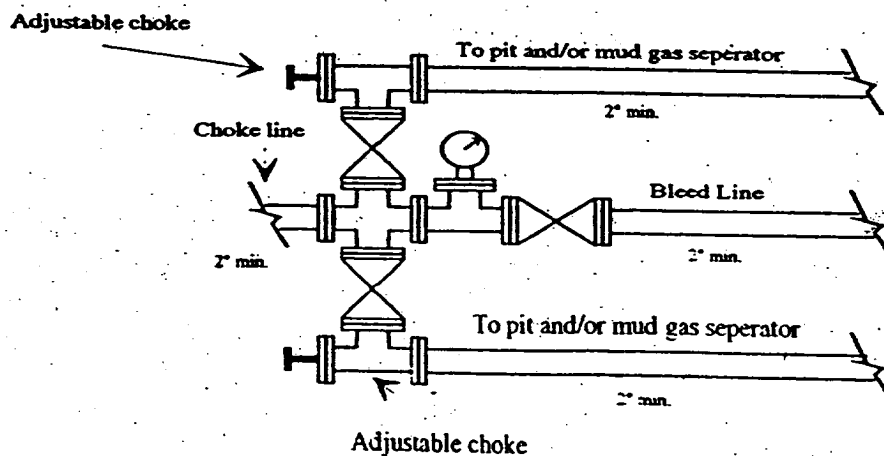
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Exhibit "C"

Typical 2,000 psi Pressure System Schematic

Double Ram Preventer Stack



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



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Exhibit "D"

