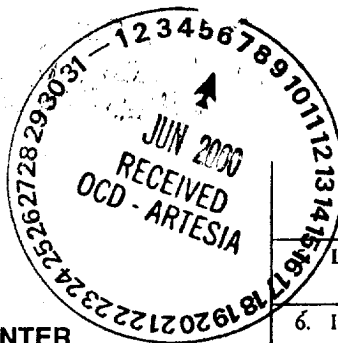


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER



FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

Lease Serial No. NM-10458

6. If Indian, Allottee or Tribe Name

1a. 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. 13508  
Duncan LH Federal #4

2. Name of Operator  
YATES PETROLEUM CORPORATION 29575

9. API Well No.  
30-005-63256

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

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

10. Field and Pool, or Exploratory  
Peasas Slope Abo WC PC

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

At surface 1980' FNL and 1650' FWL  
At proposed prod. zone Same W.F.

11. Sec., T., R., M., or Blk. and Survey or Area

Section 3, T8S-R25E

14. Distance in miles and direction from nearest town or post office\*  
Approximately 21 miles northeast of Roswell, New Mexico.

12. County or Parish  
Chaves County

13. State  
New Mexico

15. Distance from proposed\*  
location to nearest  
property or lease line, ft. 1980'  
(Also to nearest drig. unit line, if any)

16. No. of Acres in lease  
480.00

17. Spacing Unit dedicated to this well  
NW/4

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 1000'

19. Proposed Depth  
4100' 5140'

20. BLM/BIA Bond No. on file  
585997

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3638' 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 officer.

25. Signature Cy Cowan  
Title Regulatory Agent

Name (Printed/Typed)  
Cy Cowan

Date  
3/7/00

Approved by (Signature) ISLANTY D. BROWN

Name (Printed/Typed)  
ISLANTY D. BROWN

Date  
3/7/00

Title Assistant Field Manager,  
Lands And Minerals

Office ARTESIA, NM

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)

Notify OCD at SPUD & TIME  
to witness cementing the  
8 3/8" casing.

RECEIVED  
MAR 09 2000  
BLM  
ROSWELL, NM

1-800-762-2222

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

DISTRICT II  
 1000 Rio Grande Rd., Artesia, NM 88210  
 DISTRICT III  
 1000 Rio Grande Rd., Artesia, NM 87410

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised February 10, 1994  
 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

API Number	Pool Code	Pool Name Wildcat Precambrian
Property Code	Property Name DUNCAN "LH" FEDERAL	Well Number 4
OGED No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3638

Surface Location

UL or lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
F	3	8S	25E		1980	NORTH	1650	WEST	CHAVES

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320		Joint or Infill	Consolidation Code	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

**OPERATOR CERTIFICATION**

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

*Cy Cowan*

Signature

Cy Cowan

Printed Name

Regulatory Agent

Title

March 17, 2000

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 supervision, and that the same is true and correct to the best of my belief.

Date Entered  
 Signature & Seal of Professional Surveyor  
 HERSHELL L. JONES RLS 3640  
 DUNCAN 4 DISK 25  
 GENERAL SURVEYING COMPANY

**YATES PETROLEUM CORPORATION  
DUNCAN LH FEDERAL #4  
1980' FNL AND 1650' FWL  
Section 3,-T8S-R25E  
Chaves County, New Mexico**

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

San Andres	355'
Glorieta	1330'
Yeso	1455'
Tubb	2865'
Abo	3565'
TD	4100'

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

Water:	200'-300'
Oil or Gas:	3565' to 4100'

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</u>	<u>Size Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
12 1/4"	8 5/8"	24#	J55	ST&C	0-1100'	1100'
7 7/8"	4 1/2"	10.5#	J55	ST&C	0-4100'	4100'

1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.80
2. Yates Petroleum Corporation requests that a variance be granted in requiring the casing and BOPE to be tested to 2000 PSI to testing the casing and BOPE to 500 PSI. The rig pumps will be used to test the casing and BOPE. Rig pumps used in this area cannot safely test above 500 PSI. We would have to go to the greater expense of hiring an independent service to do the testing. Also, the maximum shut-in bottom hole pressure is 500-1100 PSI. Pressure at the surface is much less. Most of the time the Abo formation requires treatment before it flows.

**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).

Production Casing: TOC 3100'. Cement with 350 sx Super "C" (YLD 1.67 WT 13.0).

**5. Mud Program and Auxiliary Equipment:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
Spud - 1100'	FW Gel/Paper/LCM	8.6-9.6	32-36	N/C
1100' - 3540'	Brine	10-10.2	28	N/C
3540' to TD	Salt Gel/Starch/Oil/LCM	9.0-9.3	34-35	<10cc

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: 20' samples out from surface casing to TD.  
 Logging: DLL/MSFL TD; DSN/SDL TD to surface casing; GR/DSN to surface.  
 Coring: None anticipated.  
 DST's: None anticipated.

**7. Abnormal Conditions, Bottom hole pressure and potential hazards:**

Anticipated BHP:

From: 0	To: 1100'	Anticipated Max. BHP:	400 PSI
From: 1100'	To: TD	Anticipated Max. BHP:	1100 PSI

Abnormal Pressures Anticipated: None

Lost Circulation zones anticipated: None

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

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**  
**Duncan LH Federal #4**  
**1980' FNL and 1650' FWL**  
**Section 3-T8S-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 wellsite is located approximately 21 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 approximately 13 miles to One Horse Road. Turn right (east) on One Horse Road and go approximately 2.5 miles then continue to the northeast on Cottonwood Road for approximately 6 miles. Turn east on to an existing pipeline road and go approximately 1.2 miles to the Duncan LH Federal #1 well location. On the east side of this location turn south on the existing lease road and go approximately 0.2 of a mile. The new well location will be on the west side of the road.

**2. PLANNED ACCESS ROAD:**

- A. No road access will be needed.
- B. N/A.
- C. N/A
- D. The route of the roads in the area are 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 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.

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:

The dirt contractor will be responsible for finding any surfacing materials needed and will obtain any permits that may be 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: One 2" buried steel natural gas pipeline will be constructed.

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, and the access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' x 400' area has been staked and flagged.
- D. Pad will be rotated with the pits to the south.

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.

11. SURFACE OWNERSHIP: Federal surface administered by Bureau of Land Management, 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, historical and cultural sites.
- B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE

- A. Through A.P.D. Approval:

Cy Cowan, Regulatory Agent  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

- B. Through Drilling Operations,  
Completions and Production:

Brian Collins, Operations Manager  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

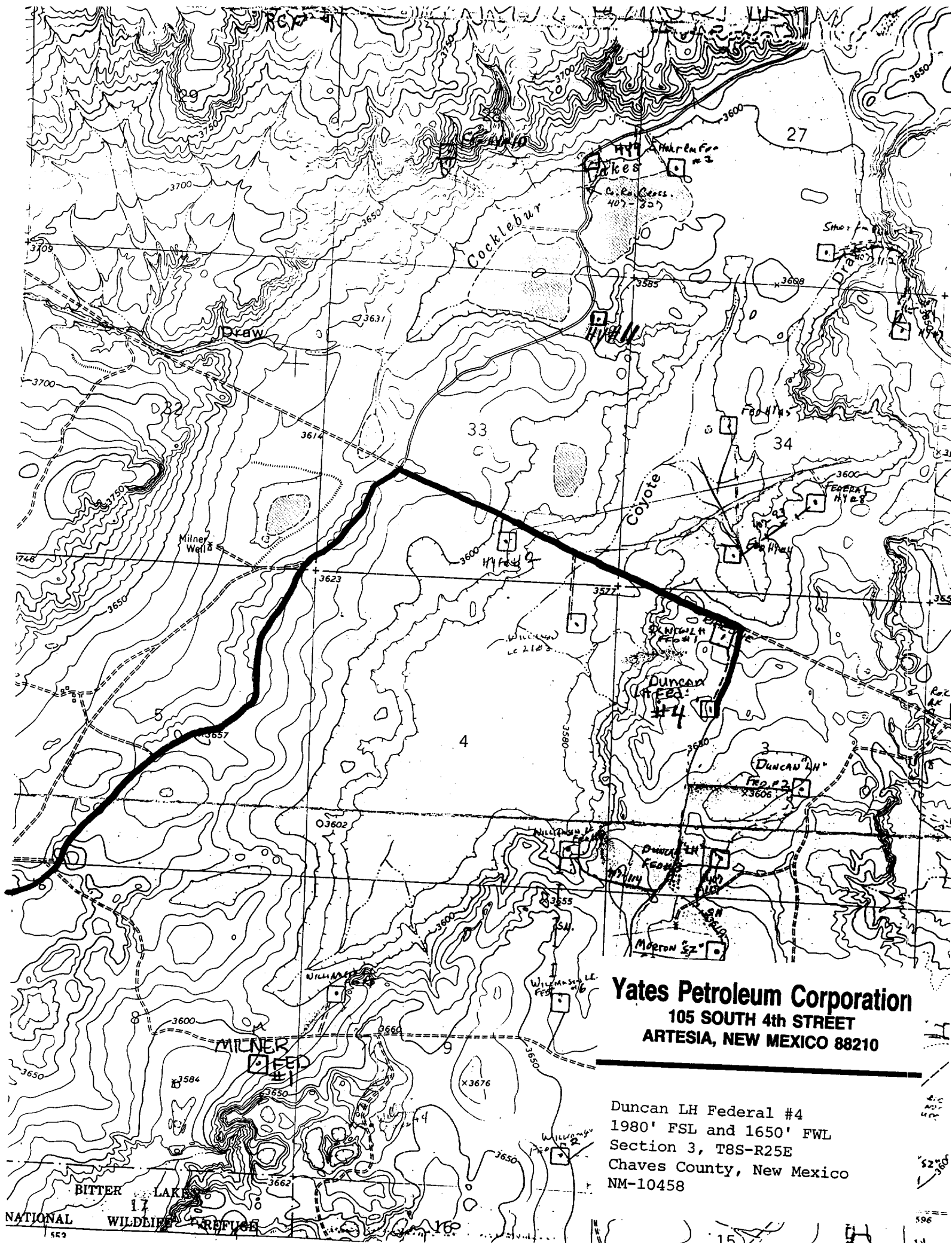
14. CERTIFICATION:

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.

3/7/00

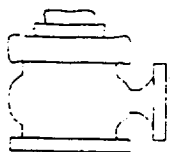
  
Regulatory Agent





**Yates Petroleum Corporation**  
105 SOUTH 4th STREET  
ARTESIA, NEW MEXICO 88210

Duncan LH Federal #4  
1980' FSL and 1650' FWL  
Section 3, T8S-R25E  
Chaves County, New Mexico  
NM-10458



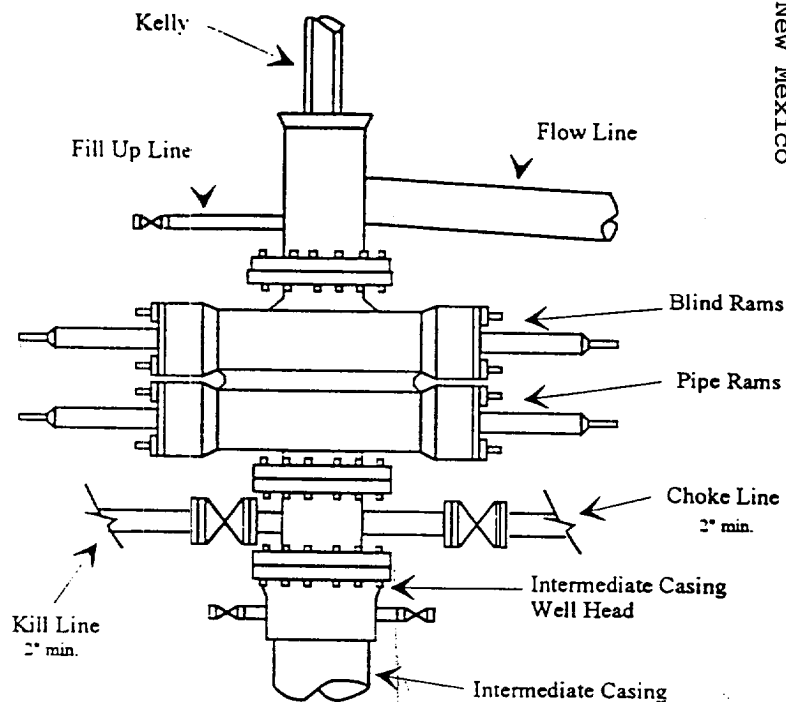
# Yates Petroleum Corporation

BOP-2

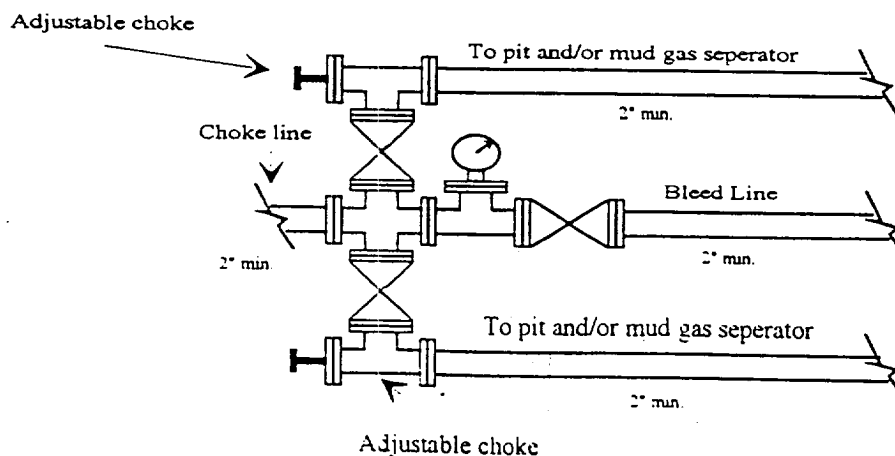
## Typical 2,000 psi Pressure System Schematic Double Ram Preventer Stack

Duncan LH Federal #4  
1980' FNL and 1650' FWL  
Section 3, T8S-R25E  
Chaves County, New Mexico  
NM-10458

**Yates Petroleum Corporation**  
105 SOUTH 4th STREET  
ARTESIA, NEW MEXICO 88210



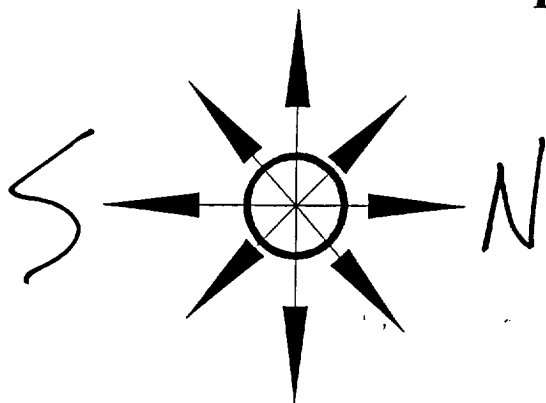
Typical 2,000 psi choke manifold assembly with at least these minimum features



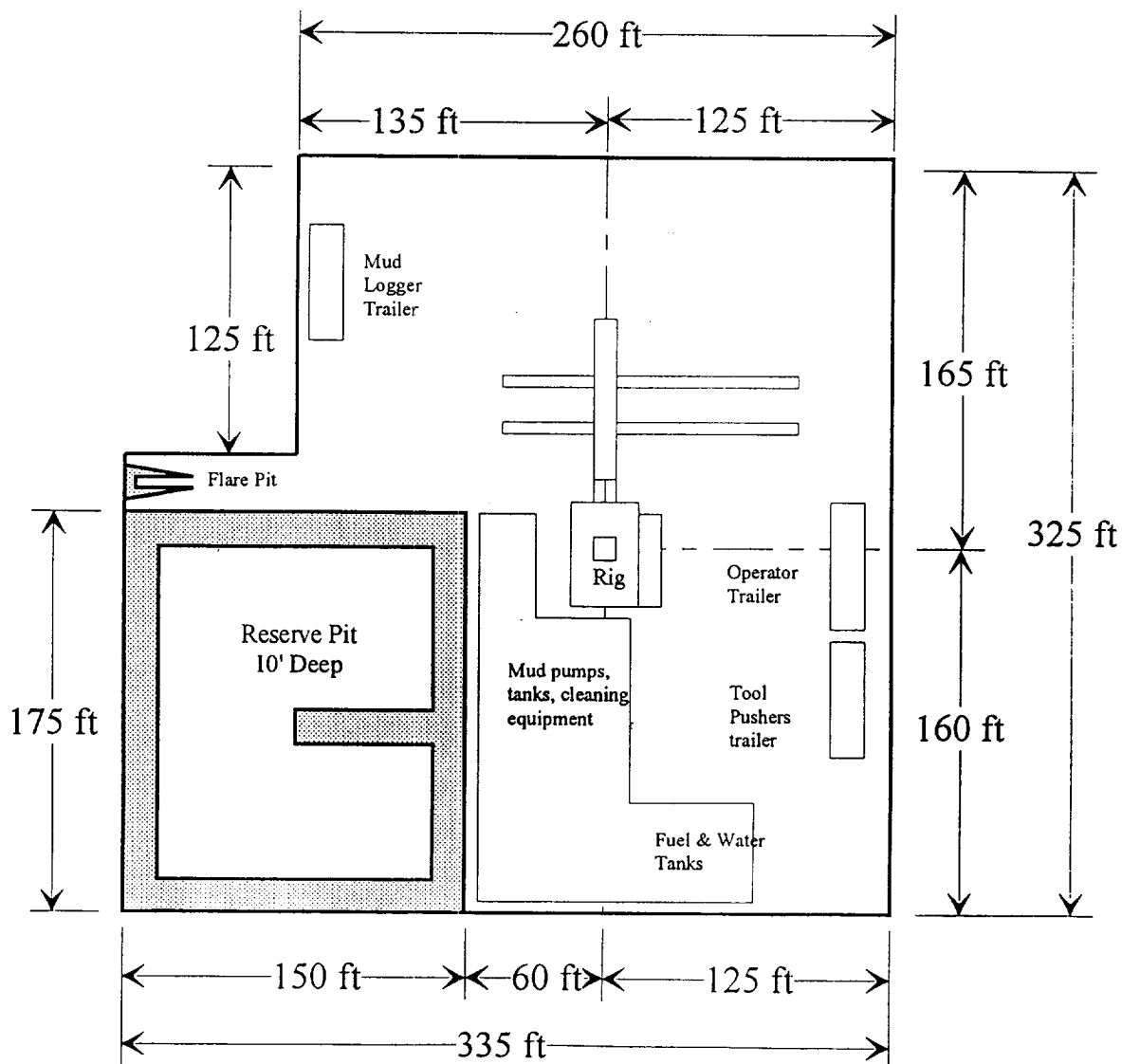
**Yates Petroleum Corporation**

Location Layout for Permian Basin

Up to 12,000'

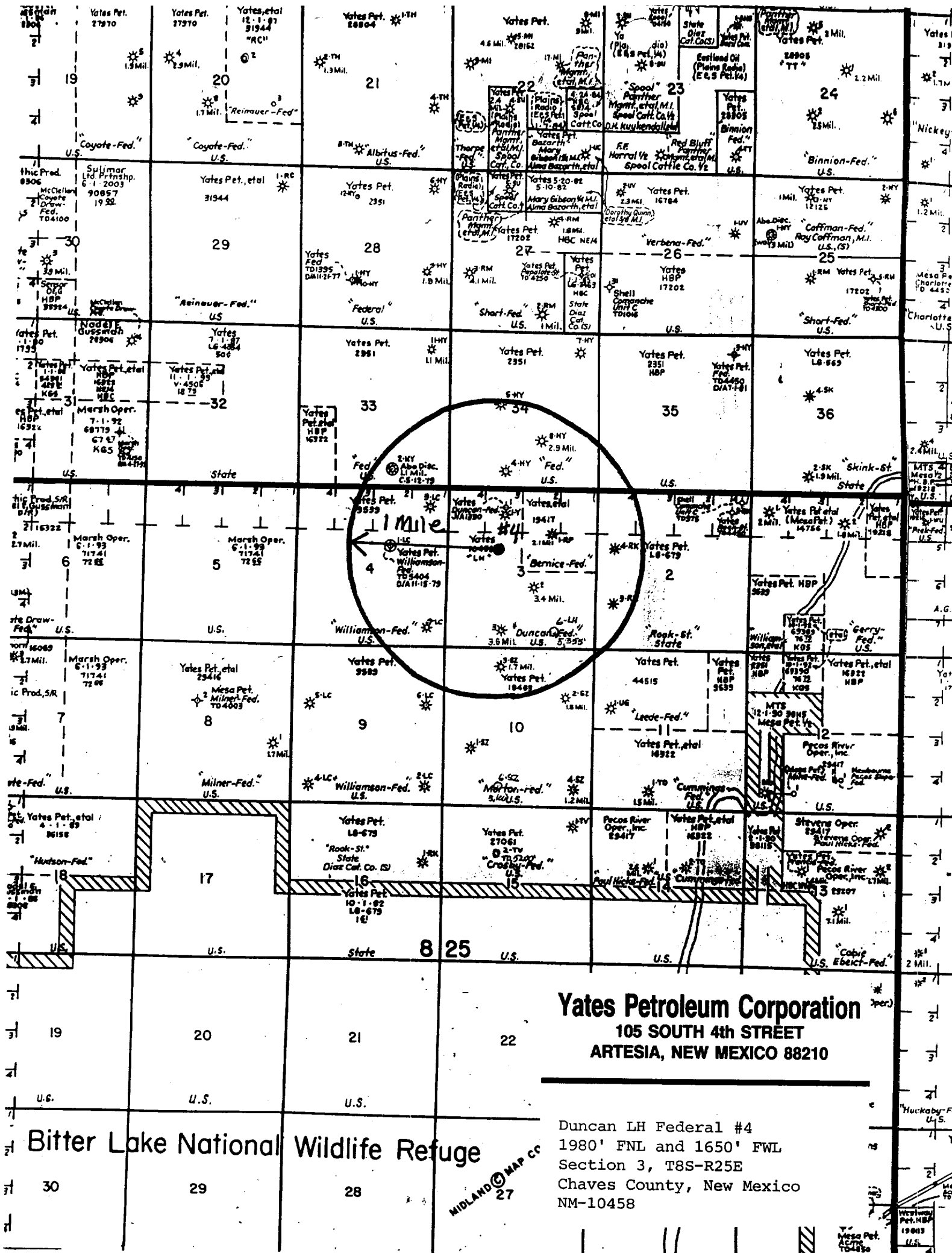
**Yates Petroleum Corporation**105 SOUTH 4th STREET  
ARTESIA, NEW MEXICO 88210

Duncan LH Federal #4  
1980' FNL and 1650' FWL  
Section 3, T8S-R25E  
Chaves County, New Mexico  
NM-10458



Distance from Well  
Head to Reserve Pit  
will vary between rigs

The above dimension  
should be a maximum



**Yates Petroleum Corporation**  
105 SOUTH 4th STREET  
ARTESIA, NEW MEXICO 88210

**Bitter Lake National Wildlife Refuge**

Duncan LH Federal #4  
1980' FNL and 1650' FWL  
Section 3, T8S-R25E  
Chaves County, New Mexico  
NM-10458

MIDLAND MAP CO  
27