

## APPLICATION FOR DRILLING

Yates Petroleum Corporation  
Riverbend HR Federal No.1  
Chaves County, New Mexico

In conjunction with Form 9-331C, Application for Permit to Drill, subject well in Section 33-Township 15 South-Range 26 East, Chaves County, New Mexico, Yates Petroleum Corporation submits the following ten items of pertinent information in accordance with U.S.G.S. requirements:

1. The geologic surface formation is quarternary alluvium.
2. The estimated tops of geologic markers are as follows:

San Andres	942'
Glorieta	2437'
Abo	4444'
Wolfcamp	5488'
Cisco	6332'
Lower Canyon	6587'
Strawn	6941'
Atoka	7277'
Chester	7447'
Mississippi	7572'
Devonian	7997'
Ellenberger	8707'
Pre-Cambrian	9131'

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

Water:	Possibly at 100' or above, to depth of approximately 1200'-1300'.
Oil or Gas:	Abo 5350'-5488'
	Atoka 7277'-7447'
	Devonian-Ellenberger 7997'-9131'
4. Proposed Casing Program: See Form 9-331C.
5. Pressure Central Equipment: See form 9-331C and Exhibit E
6. Mud Program: See Form 9-331C.
7. Auxiliary Equipment: Blowout preventer and inside drill pipe BOP.
8. Testing, logging and coring programs:

Drill stem testing as warranted.
Mud and electric logging.

9. No abnormal pressures or temperatures are anticipated.
10. Anticipated starting date: As soon as possible.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN  
Yates Petroleum Corporation  
Riverbend HR Federal Well No. 1  
660' FSL and 1980' FEL, Sec. 33-T15S-R26E  
Chaves County, New Mexico  
(Exploratory Well)

RECEIVED  
MAR 21 1977  
U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

This plan is submitted with Form 9-331C, 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 necessary 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 effects associated with the operation.

1. EXISTING ROADS.

- A. Exhibit A is a portion of BLM quad-color map No. SE-18, showing the proposed location and the surrounding area on a scale of 1/2" to a mile. Exhibit B is a topographic map on a scale of approximately 2 3/4" to a mile, showing the area and the roads in the immediate vicinity of the proposed location. The proposed wellsite is located at a driving distance of approximately 16.9 miles north and east of Artesia, New Mexico. (or approximately 5.5 miles south and east of Lake Arthur, New Mexico)
- (1) Proceed north on Highway 285 from the intersection of Highways 285 and 82 in Artesia for approximately 2.5 miles to the right hand fork (State Highway 2) leading to Lake Arthur, New Mexico.
  - (2) Take the right hand fork and continue north on Highway 2 for approximately 8.9 miles, at which point you should turn right (east) on a paved road which runs along the northern edge of the city of Lake Arthur. Landmarks to watch for, to identify this eastbound road, are as follows:
    - (a) There is a Sinclair gasoline station on the west side of Highway 2, about 0.3 of a mile south of the turn-off.
    - (b) Across the road (Highway 2) from the turnoff is a white house (former gasoline station), trimmed in green.
  - (3) Continue east on this road. The hard top (paved) surface ends after approximately 1.7 miles and the road continues as a gravel road. There is a sharp right hand turn, after approximately 0.4 of a mile of gravel road (there is a fenced "Christmas tree" on the east side of the road at this point), and the road curves occasionally beyond this point. About 1.1 miles beyond this curve, you will cross a bridge over the Pecos River.

- (4) After crossing the bridge, take the right fork over the cattle guard and continue to a gate about 0.3 of a mile beyond the bridge. This is a gate to private property, owned by Mr. Ross Haven and leased by Mr. Pete Lord, and the gate is normally locked if neither of these men are working on the premises. Arrangements have been made with them for use of the road beyond the gate for purposes of preparing for and conducting drilling operations at the proposed wellsite. However, it is suggested, for purposes of BLM inspection of the proposed location, that the BLM make advance contact with Mr. E.N. Lucking, Oil & Gas Administrative Services Company, Artesia (telephone 746-2768) or Mr. Eddie Mahfood, Yates Petroleum Corporation, Artesia (telephone 746-3558) to arrange for entry through this gate on the date of BLM inspection.
- (5) The remainder of the route to be used in preparing for and conducting drilling operations will be described at this point. In the event, however, that the above gate should be locked, an alternate access route for BLM inspection purposes only, will be described below in paragraph 1.B. (and is shown in exhibit B).
- (6) Proceed beyond the gate for a distance of approximately 0.6 of a mile, stopping just short of a shed and cattle guard (adjacent to a ranch house and yard), as shown in exhibit C. At this point, there is a fence on the left side of the road, running toward the south and away from the road more-or less at a right angle. A new road will be constructed, beginning at this point and running alongside this fence. This new road will be about 300 feet in length and will pass through a second fence at a point about 250 feet from the starting point of the new road. A cattleguard will be installed through this fence. About 50 feet beyond this cattleguard, the new road will join an existing road, which will be used beyond this point. (In order to reach this point for BLM inspection purposes, since the new road and cattleguard have yet to be built, it will be necessary to drive through the ranch yard, as shown in green on exhibit C, rejoining the access road as indicated.)
- (7) After leaving the new road described above and rejoining the existing access road, continue south for approximately 0.7 of a mile. At this point, turn half-right at a fork in the road and continue southwest for about 0.35 of a mile. At this point, you will join an east-west road and you should continue west for about 0.15 of a mile. The proposed new road leading to the drilling pad will start at this point, in a northerly direction. The drillsite is about 0.15 of a mile from this point and the location flags are visible at this distance.

B. As indicated above in paragraph A(5), there is an alternate route to the location in the event that the entry gate mentioned in paragraph A(4) is locked. However, this alternate route is outlined for purposes of BLM inspection only and is not intended as the access road for drilling operations. This alternate route makes possible inspection of the entire access route on both sides of the entry gate in the event that the gate should be locked. The alternate route is as follows:

(1) At the (locked) gate, turn left just short of the gate and proceed in a generally southward direction for about 0.45 of a mile (the road curves several times over this distance), at which point you will come to a barbed-wire gate through a fence. Proceed through this gate and continue for about 0.95 of a mile (the first half-mile parallels a fence on your left and the road then curves several times), at which point you should turn half-right on a road leading toward the southwest (the road subsequently changes to a westbound direction). You will cross a caliche or gyp road after about 0.2 of a mile, and pass a section marker on your left adjacent to the road, immediately thereafter (sections 33 and 34, 15S, 26E and section 1, 16S, 26F). About 0.2 of a mile beyond the section marker, you will pass a trail road on the right (north) side of the road and after an additional 0.1 of a mile, there is a flagged railroad spike in the road, indicating the area in which the newly constructed road to the drilling pad will begin. The drillsite is about 0.15 miles north of the existing access road at this point.

C. The road surface of the existing access route described in paragraphs 1. A(4), 1. A(6) and 1. A(7) above will require blade scraping, caliche surfacing, and possibly a small amount of fill. The surface will be crowned in the center, with drainage on both sides of the road. Drainage wings will be constructed periodically along both sides of the road.

## 2. PLANNED ACCESS ROADS.

A. There will be two areas where new road will be constructed.

(1) The first of these areas is indicated in paragraph 1. A(6) above and is near the ranch house which is located along the existing access route. The new road at this point will traverse a distance of about 300 feet over a sandy area containing several 3-4 foot dunes, and will be blade scraped and caliche surfaced. The road will be 12 feet in width and the surface will be crowned in the center, with drainage on both sides of the road. A cattleguard will be installed in the fence which lies across the route of this road. Permission has already been obtained from the property owner for the performance of this work and the other work necessary to provide access to the location. No culverts or turnouts will be necessary.

- (2) The second area of new road will be located at the wellsite and will cover a distance of approximately 0.15 of a mile from the existing access road to the southeast corner of the drilling pad. This road will be 12 feet in width and will be constructed by blade scraping and caliche surfacing, with drainage on both sides of the road. No culverts or turnouts will be necessary.
- (3) The center line of each of these new roads has been staked and flagged, and the route of each road is clearly visible.

3. LOCATION OF EXISTING WELLS

- A. There are no producing wells in the area of the wellsite. The closest drilling activity has been in sections 11 and 12, T16S, R26E and in section 7, T16S, R27E, as shown in exhibit B, and has not been productive.

4. LOCATIONS OF EXISTING AND/OR PROPOSED FACILITIES.

- A. There are no productive facilities on this lease at the present time. The nearest facility is a Southern Union Gas Company pipeline, located about a mile and a half from the wellsite and running in a northwest to southeast direction.
- 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 of 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 Exhibits A and B.

6. SOURCE OF CONSTRUCTION MATERIALS

- A. Caliche for the construction of the drilling pad and the new access roads, as well as for any resurfacing of existing access roads, will be obtained from privately owned land in section 27-15S-26E. Arrangements have been made with the land owner for the acquisition of caliche from this source.

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 disposed of in the reserve pits. Oil produced during operations will be stored in tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

- A. None Required

9. WELLSITE LAYOUT

- A. Exhibit D shows the relative location and dimensions of the well pad, reserve pits, and major rig components.
- B. The ground elevation at the wellsite location is relatively flat with only minor, gradual undulations. Relatively little leveling will be necessary to construct the location, which will be covered with an appropriate thickness of compacted caliche.
- C. The reserve pits will be plastic lined.
- D. The pad and pit area has been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE.

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. OTHER INFORMATION

- A. Topography: The land surface is relatively flat, with only minor undulations over the wellsite area.

- B. The topsoil at the wellsite ranges from moderately hard to moderately soft sand.
- C. Flora and Fauna: The vegetation cover in the area is relatively light, consisting primarily of prairie grass, cactus, prairie flowers, mesquite, and miscellaneous weeds. No wildlife was observed, but the area is typical of semi-arid desert land and the wildlife is probably typical of semi-arid desert land, consisting of rabbits, reptiles, coyotes, gophers, kangaroo rats, and badgers. The area is used for cattle grazing.
- D. The Pecos River is located about a half-mile west of the well-site. Otherwise there are no ponds, lakes, streams or rivers in the area.
- E. The nearest dwelling is about a mile north and slightly east of the location, in the southeast corner of section 28-R15S-T26E. There is an old house at this location, apparently used (but not occupied as a residence) part time, and a few out-buildings, plus a corral and a water trough for cattle. There formerly was a windmill at this site. There are no other occupied dwellings or windmills in the area.
- F. Surface Ownership: The wellsite is on federal surface. Portions of the access roads cross privately owned land.
- G. There is no evidence of any archeological, historical, or cultural sites in the area.

12. OPERATOR'S REPRESENTATIVES.

The field representatives responsible for assuring compliance with the approved surface use and operations plan are:

Eddie Mahfood  
Yates Petroleum Corporation  
207 S. 4th Street  
Artesia, New Mexico 88210

Telephone: 505-746-3558 (office)  
505-746-4415 (home)

Leon Bergstrom  
Yates Petroleum Corporation  
207 S. 4th Street  
Artesia, New Mexico 88210

Telephone: 505-746-3558 (office)  
505-748-1072 (home)

James Jonas  
Yates Petroleum Corporation  
207 S. 4th Street  
Artesia, New Mexico 88210

Telephone: 505-746-3558 (office)  
505-746-3772 (home)



13. CERTIFICATION.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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.

3-21-77

Date

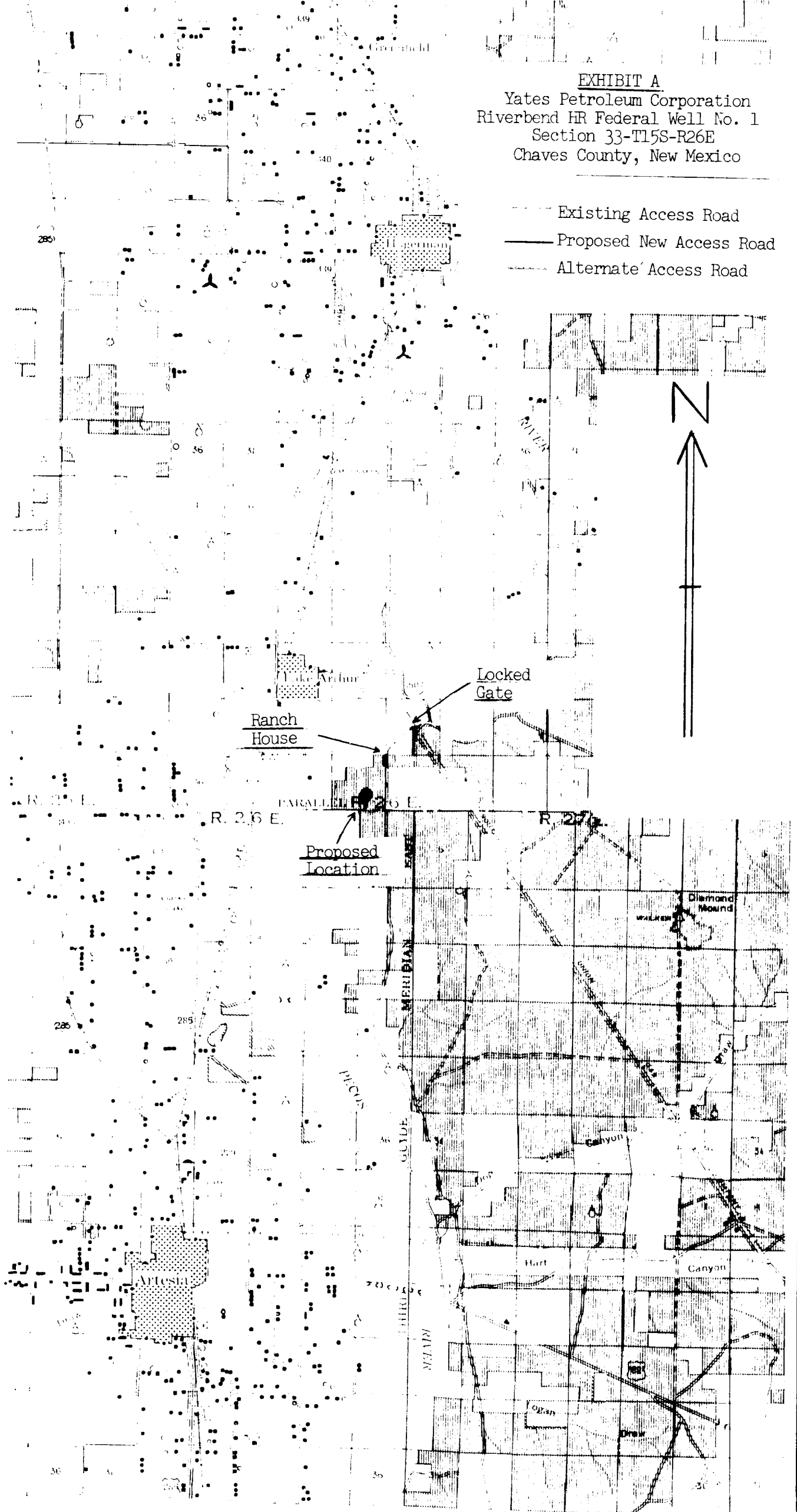
Eddie M. Madsen, Engr.

Name and Title

EXHIBIT A

Yates Petroleum Corporation  
Riverbend HR Federal Well No. 1  
Section 33-T15S-R26E  
Chaves County, New Mexico

- Existing Access Road
- Proposed New Access Road
- Alternate Access Road



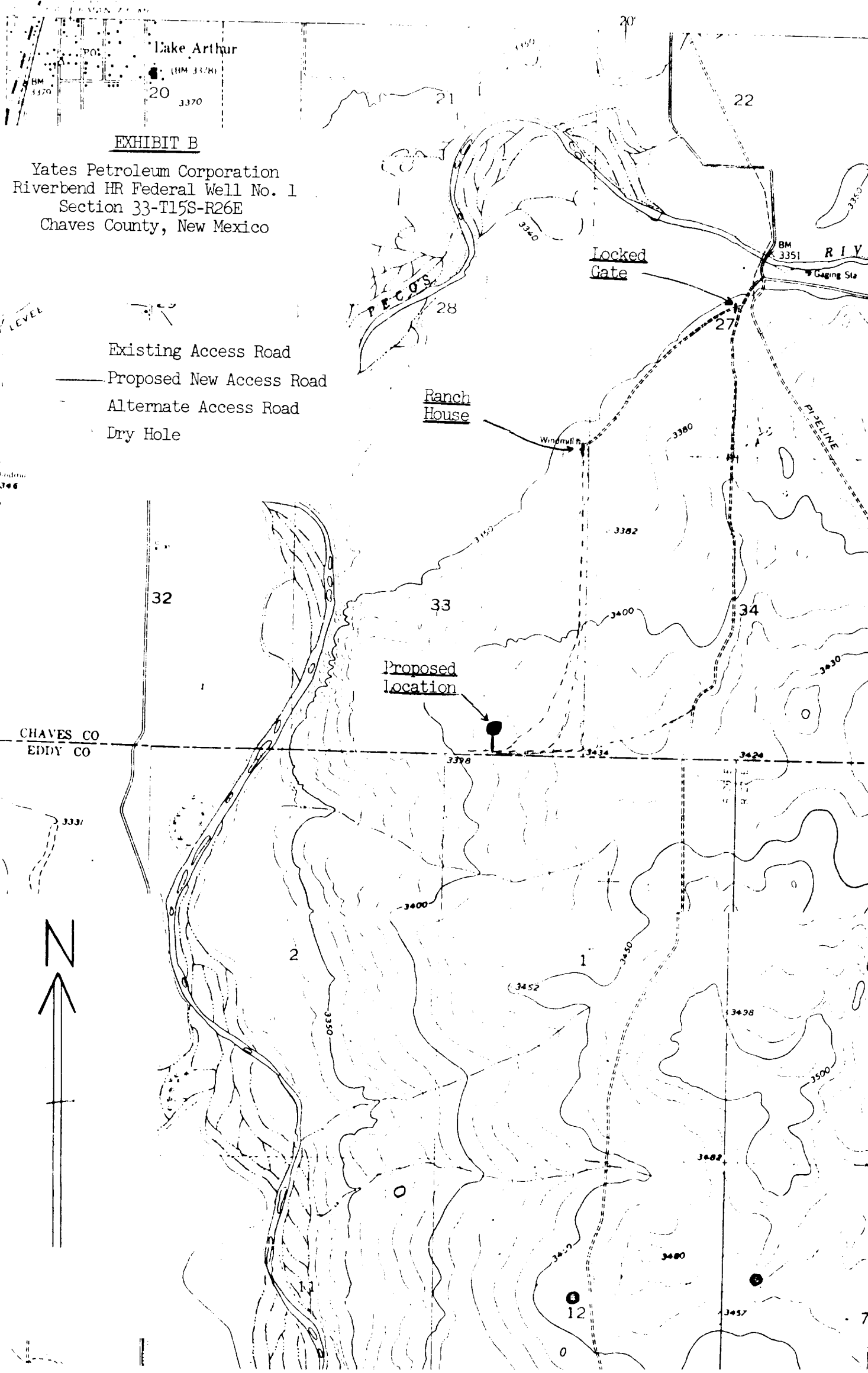


EXHIBIT B

Yates Petroleum Corporation  
Riverbend HR Federal Well No. 1  
Section 33-T15S-R26E  
Chaves County, New Mexico

Existing Access Road

Proposed New Access Road

Alternate Access Road

Dry Hole



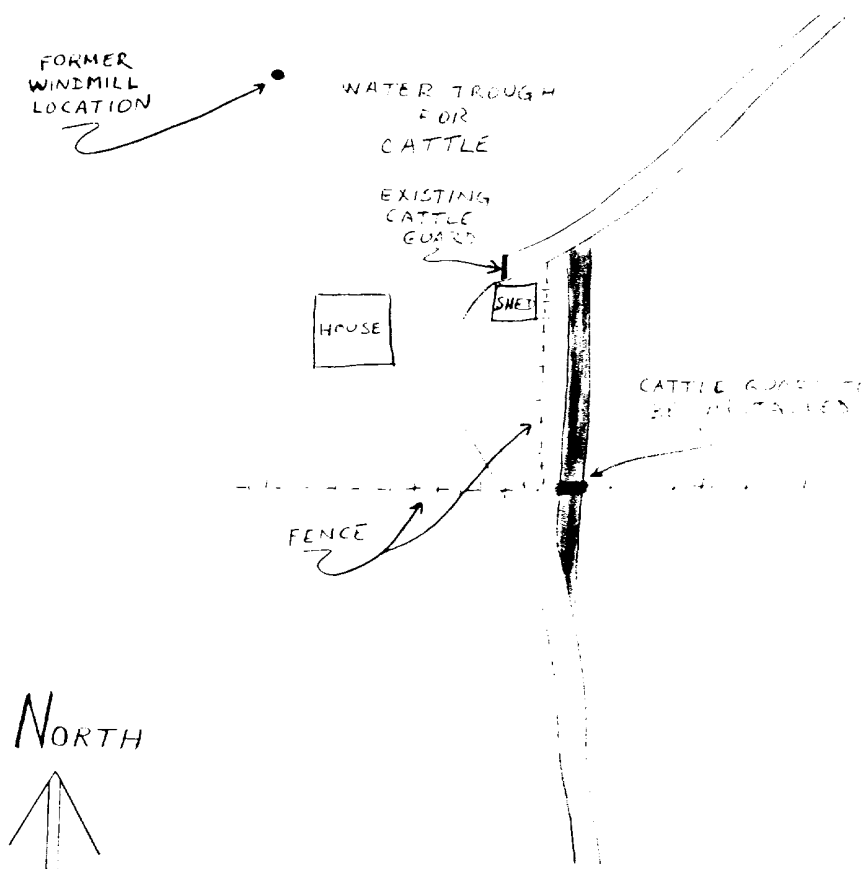


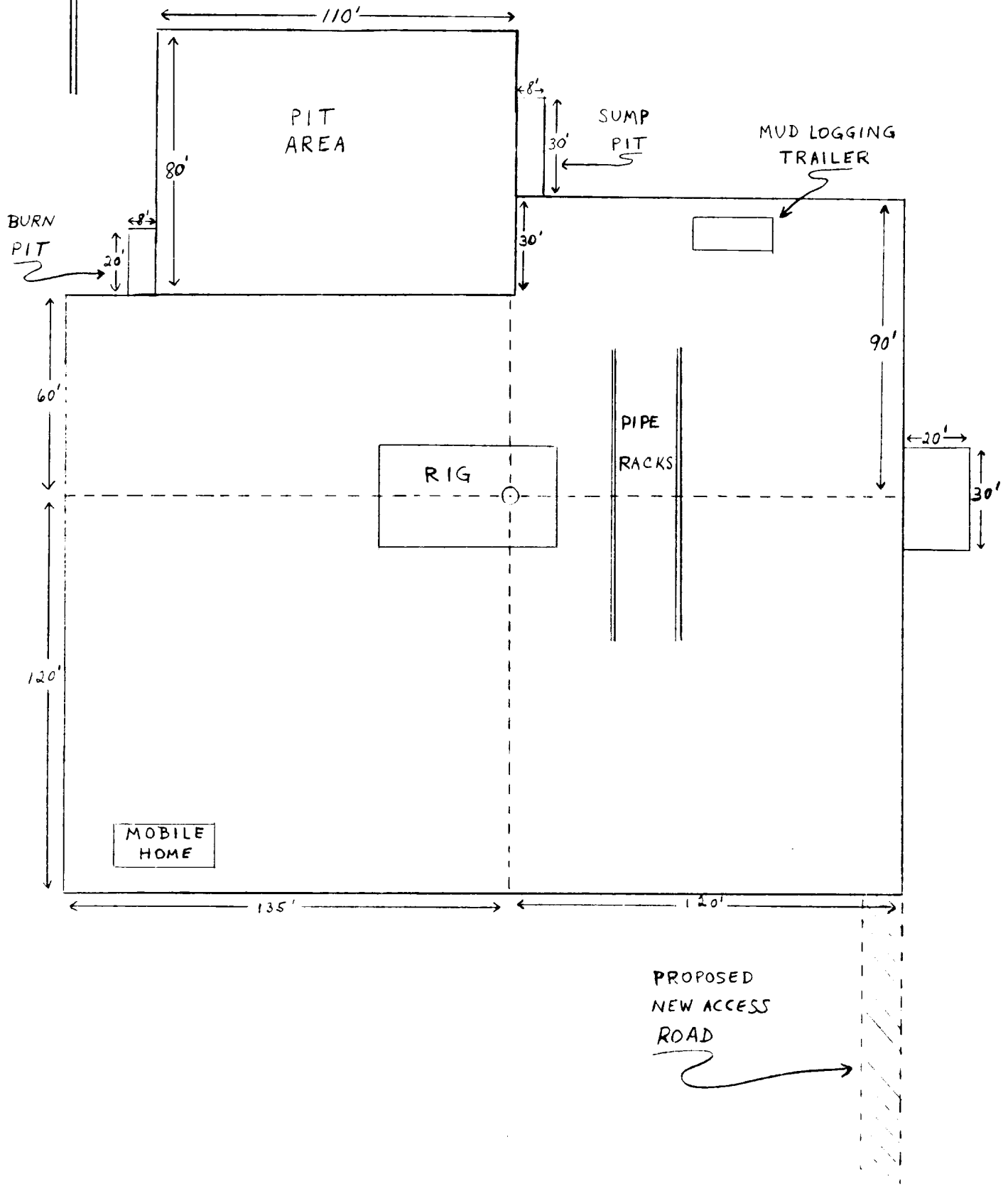
EXHIBIT C

Yates Petroleum Corporation  
Riverbend HR Federal Well No. 1  
Section 33-T15S-R26E  
Chaves County, New Mexico

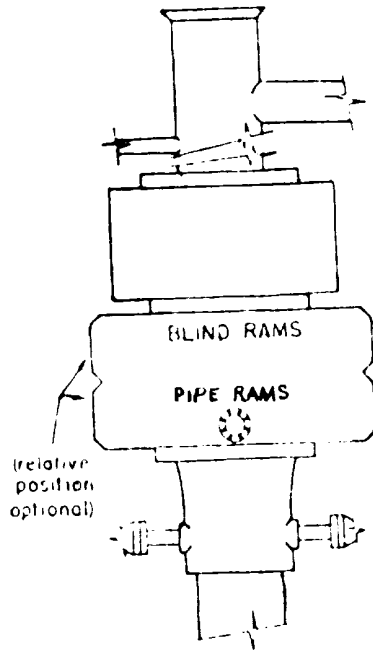
- Existing Access Road
- Proposed New Access Road
- Access Road For BIM Inspection

EXHIBIT D

Yates Petroleum Corporation  
Riverbend HR Federal Well No. 1  
Section 33-T15S-R26E  
Chaves County, New Mexico



# BLOWOUT PREVENTER



## EXHIBIT E

Yates Petroleum Corporation  
Riverbend HR Federal Well No. 1  
Section 33-T15S-R26E  
Chaves County, New Mexico

## CHOKE MANIFOLD

Adjustable Choke

