

Form 3160-3  
(July 1989)  
(formerly 9-3316)

RECEIVED

NM Oil Cons. Commission  
Drawer DD OFFICE FO. MHR  
Artesia, NM 88210  
OF COPIES REQUIRED  
(Other instructions on  
reverse side)

30-005-62921  
BLM Roswell District  
Modified Form No.  
NMO60-3160-2

UNITED STATES  
DEPARTMENT OF THE INTERIOR

O.C.D. BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Merit Energy Company ✓

3a. Area Code & Phone No.  
(214) 701-8377

3. ADDRESS OF OPERATOR

12221 Merit Dr., Ste. 500 Dallas, TX 75251

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

560' FSL & 2060' FEL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

18 road miles NE of Roswell, NM

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

560'

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

1911.3'

19. PROPOSED DEPTH

4800'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3639.5' GL

22. APPROX. DATE WORK WILL START\*

November 5, 1992

23. PROPOSED CASING AND CEMENTING PROGRAM

| HOLE SIZE | CASING SIZE | WEIGHT/FOOT | GRADE | THREAD TYPE | SETTING DEPTH | QUANTITY OF CEMENT |
|-----------|-------------|-------------|-------|-------------|---------------|--------------------|
| 12 1/4"   | 8 5/8"      | 24#         | J-55  | LTC         | 900'          | Circ. 500 sx       |
| 7 7/8"    | 4 1/2"      | 10.5#       | J-55  | LTC         | 4800'         | 300 sx "C"         |

MUD PROGRAM: 0' - 900': Fresh water spud mud. No. WL control.

900' - 4800': Cut Brine, 8.9-9.5#/gal, Vis. 28-30, WL 20cc or less, oil if required

BOP PROGRAM: A 10" 3000 psi wp  
on the 8 5/8" casing  
with 7 7/8". The B  
tested daily.

1 be installed  
drilling out  
and will be

Gas is not dedicated.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to  
zone. If proposal is to drill or deepen directionally, give per  
preventer program, if any.

and proposed new productive  
vertical depths. Give blowout

24.

Agent for:

Merit Energy Company

Oct. 15, 1992

SIGNED

TITLE

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL OF THIS APPLICATION 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.

PLEASE BE ADVISED THAT THERE WILL BE NO EXCAVATION  
OF FEDERALLY OWNED MINERAL MATERIAL FOR CONSTRUCTION  
OF THE ACCESS ROAD OR PAD WITHOUT PAYMENT OF THE  
IN ADVANCE.

Section 1001, makes it a crime for any person knowingly

**OIL CONSERVATION DIVISION**

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

**DISTRICT I**

P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**

P.O. Drawer DD, Artesia, NM 88210

**DISTRICT III**

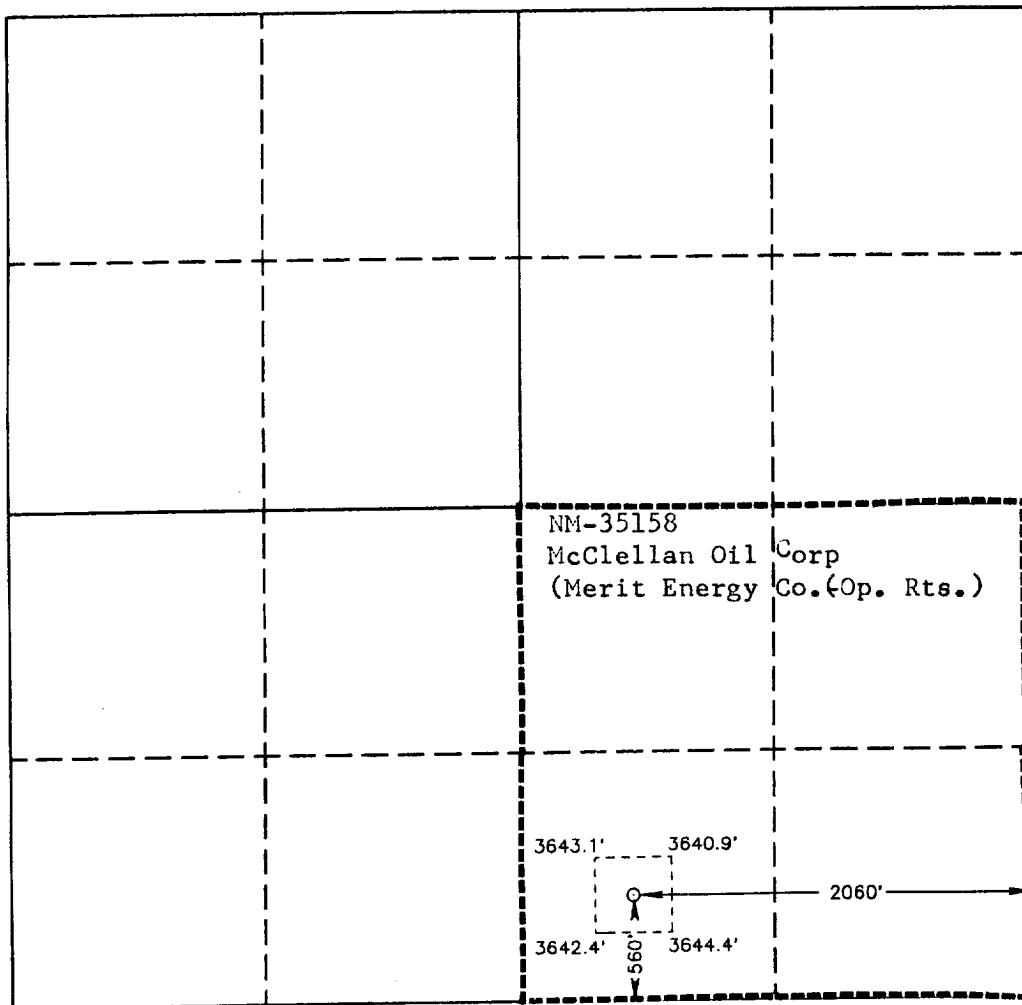
1000 Rio Brazos Rd., Aztec, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

|                                    |                            |                               |                                 |                  |               |
|------------------------------------|----------------------------|-------------------------------|---------------------------------|------------------|---------------|
| Operator<br>MERIT ENERGY COMPANY   |                            |                               | Lease<br>JILL FEDERAL           |                  | Well No.<br>3 |
| Unit Letter<br>0                   | Section<br>24              | Township<br>9 SOUTH           | Range<br>25 EAST<br>NMPM        | County<br>CHAVES |               |
| Actual Footage Location of Well: . |                            |                               |                                 |                  |               |
| 560 feet from the SOUTH line and   |                            | 2060 feet from the EAST line  |                                 |                  |               |
| Ground Level Elev.<br>3639.5'      | Producing Formation<br>Abo | Pool<br>South Pecos Slope Abo | Dedicated Acreage:<br>160 Acres |                  |               |

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)  
No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, 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.

Signature

Printed Name

Sheryl J. Carruth

Position

Regulatory Manager

Company

Merit Energy Company

Date

9-18-92

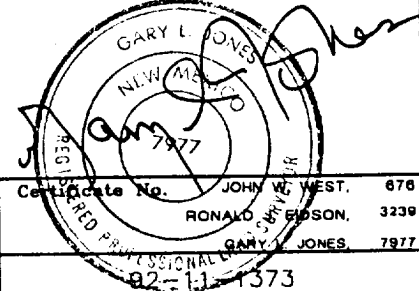
**SURVEYOR CERTIFICATION**

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 knowledge and belief.

Date Surveyed

SEPTEMBER 17, 1992

Signature & Seal of  
Professional Surveyor



Certificate No. JOHN W. WEST, 676  
RONALD E. EDSON, 3239  
GARY L. JONES, 7977  
92-11-1373

# APPLICATION FOR DRILLING

MERIT ENERGY COMPANY  
Jill Federal, Well No. 3  
560' FSL & 2060' FEL, Sec. 24-T9S-R25E  
Chaves County, New Mexico  
Lease No.: NM-35158  
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Merit Energy Company submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

|            |       |
|------------|-------|
| San Andres | 580'  |
| Glorieta   | 1675' |
| Yeso       | 1740' |
| Abo        | 3905' |
| T.D.       | 4800' |
3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Random fresh water sands from surface to - 300'+/-.

Oil: None expected.

Gas: Possible in the Abo below 3905'.
4. Proposed Casing Program: See Form 3160-3.
5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".
6. Mud Program: See Form 3160-3.
7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.
8. Testing, Logging, and Coring Program:

Drill Stem Tests: None, unless warranted

Logging: T.D. to surface casing: CNL-LDT, and DLL w/selected RXO.  
T.D. to surface: GR-CNL.

Coring: None planned.
9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated BHP = 1200 psi with 120° temperature.

H<sub>2</sub>S: None expected. None in the previously drilled wells in vicinity.
10. Anticipated starting date: November 15, 1992.  
Anticipated completion of drilling operations: Approximately 30 days.

## MULTI POINT SURFACE USE AND OPERATIONS PLAN

MERIT ENERGY COMPANY  
Jill Federal, Well No. 3  
560' FSL & 2060' FEL, Sec. 24-T9S-R25E  
Chaves County, New Mexico  
Lease No.: NM-35158  
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

### 1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a BLM Roswell Quadrangle map showing the location of the proposed well as staked, in relation to existing roads and highway. The well site location is approximately 18 road miles east of Roswell, New Mexico. Traveling east from Roswell, there will be approximately 10 miles of paved U.S. Highway 380 and 8 miles of gravel ranch/oilfield roads.
- B. Directions: Travel East from Roswell, NM on U.S. Highway 380 for 10 miles to the Bottomless Lakes turnoff. Turn north toward the National Guard building on Chaves County road No. 61. Continue past the National Guard for a total of 5.5 miles from the highway, crossing a cattle guard and follow the road northwest parallel to the Texas New Mexico pipeline. Cross the next cattle guard and continue northwest for 1.3 mile to the turnoff road, on the right, to the MM Fed. Well's No. 7 and 8. Turn northeast for .6 mile to the MM Fed., Well No. 8 well site. The proposed access road is staked on the northwest corner of the well site and will run northwest for 2400 feet to the southwest corner of the staked location.

### 2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 2400 feet of new access road 12 feet wide (24' Max.), which is color coded red on Exhibit "B".
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche or gravel. The surface will be properly drained. The access road will have an overall slope of 1.6%
- C. Turnouts: One or two will be required, increasing the road to 20 feet for passing.
- D. Culverts: None required.
- E. Cuts and Fills: None required.
- F. Gates, Cattleguards: None required.
- G. Off Lease R/W: None required.
- H. Existing Roads: To be maintained in as good or better condition.

### 3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a one mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;

- A. There are production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, if needed, will be installed on the drilling pad. A 2 3/8" gas pipeline will be buried a maximum of 24" and will run parallel with and 25 feet from the edge of the proposed access road to an existing pipeline at the MM Fed. #8 well site.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads. The water will be obtained from a well belonging to Bill Tiner in NE¼NE¼NE¼ Sec.14-T11S-R26E.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche (gravel) for surfacing the proposed access road and well site pad will be obtained from an approved Federal pit in the SW¼NE¼ of Section 25-T9S-R25E. The topsoil from the location will be stockpiled near the location for future rehabilitation use. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve/mud pit.
- B. Drilling fluids will be allowed to evaporate in the reserve/mud pit until the pit is dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering and will be removed for deposit in an approved sanitary land fill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, waste pits, and major rig components. The pad and pit area has been staked and flagged, 400' X 400'.
- B. Mat Size: Maximum size: 260' X 185' plus 50' X 100' reserve pit, which will be cut 4 feet below surface level on the south side of the pad.
- C. Cut & Fill: A 6" cut on the south with fill to the northeast will be required. Additional fill will be required to raise the overall pad level 12" above the existing surface level. A 5-6 foot sand dune 50 feet west of the location will also be leveled and will furnish additional fill.
- D. The surface will be topped with compacted caliche and the pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced and screened until they are filled.
- 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 and leveled as soon as the pits are dry enough to work.

11. OTHER INFORMATION:

- A. Topography: The proposed well site is located on the south side of the start of a small draw that collects water from the east and runs west/southwest to the Pecos River. The location is a relatively level area with a 2% slope to the northwest from an elevation of 3639.5' G.L. The proposed access road is located on a level area with a northwesterly slope of 1.6%. The area is part of the uplands east of the Pecos River, which is 1.75 miles to the west.
- B. Soil: The topsoil at the well site is a light tan colored sandy loam with considerable alkali salt crusting on the surface in the lower wetter areas. This soil is part of the Roswell-Jalmar fine sands and the Hollomex-Reeves-Milner complex series.
- C. Flora and Fauna: The vegetation cover is a fair to good grass cover of three-awn, dropseed, grama, tobosa and alkali sacaton in the wet areas along with plants of salt cedar, mesquite, creosote bush, yucca, cacti, broomweed, thistle and miscellaneous weeds and wildflowers. The wildlife consists of antelope, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: The Pecos River is 1.75 miles west of the location.

11. OTHER INFORMATION; cont.....

- E. Residences and Other Structures: None in immediate vicinity.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no evidence of any archaeological, historical or cultural sites in the area. An archaeological survey will be conducted by Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

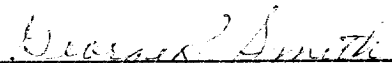
- A. The field representative for assuring compliance with the approved surface use and operations plan is as follows:

Mark Hamilton  
Merit Energy Company  
P. O. Drawer 8249  
Roswell, New Mexico 88202  
Home Phone: (505) 622-9062  
Mobile Phone: (505) 625-6135

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Merit Energy 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.

October 15, 1992

  
\_\_\_\_\_  
George R. Smith  
Agent for: Merit Energy Company

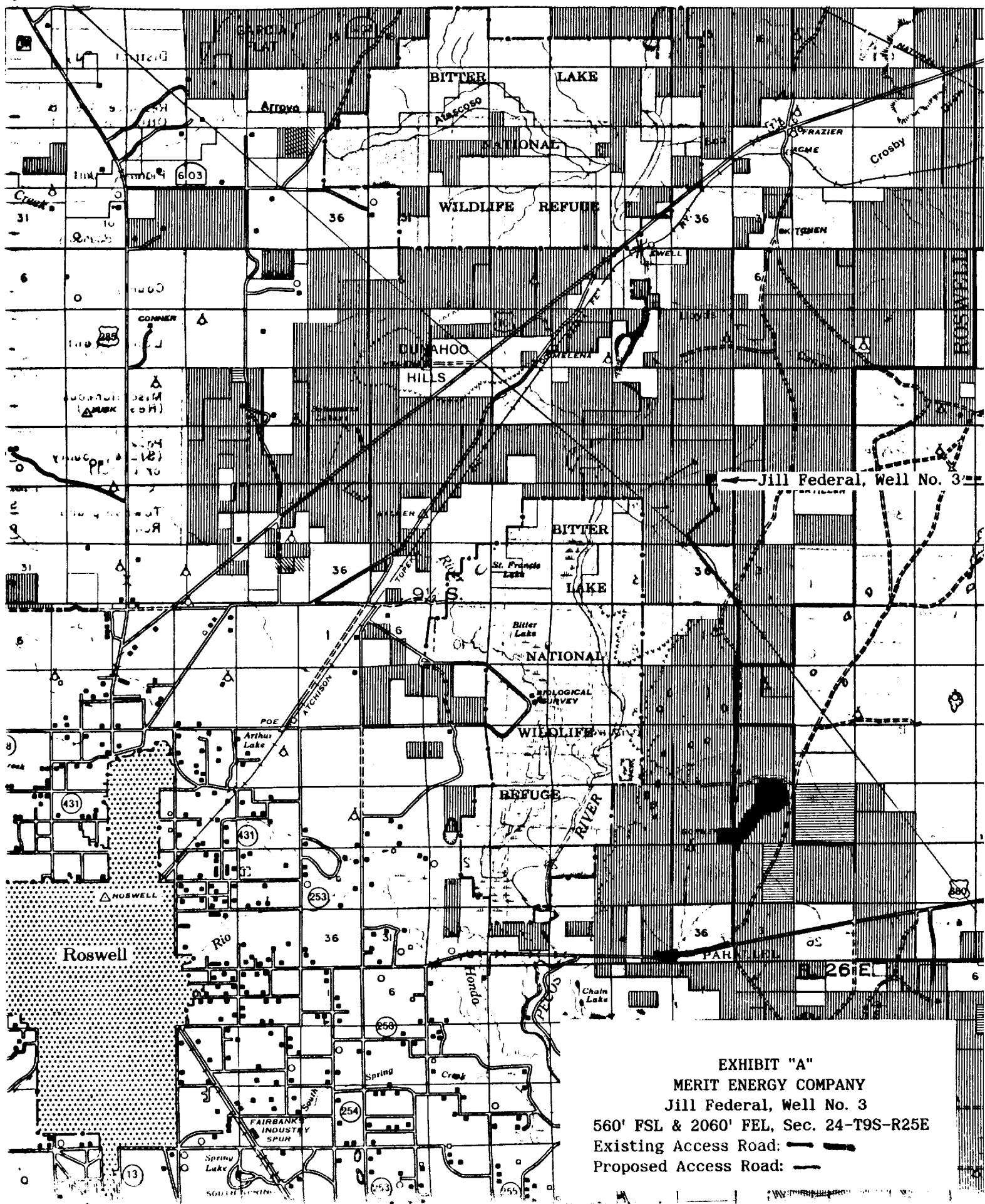
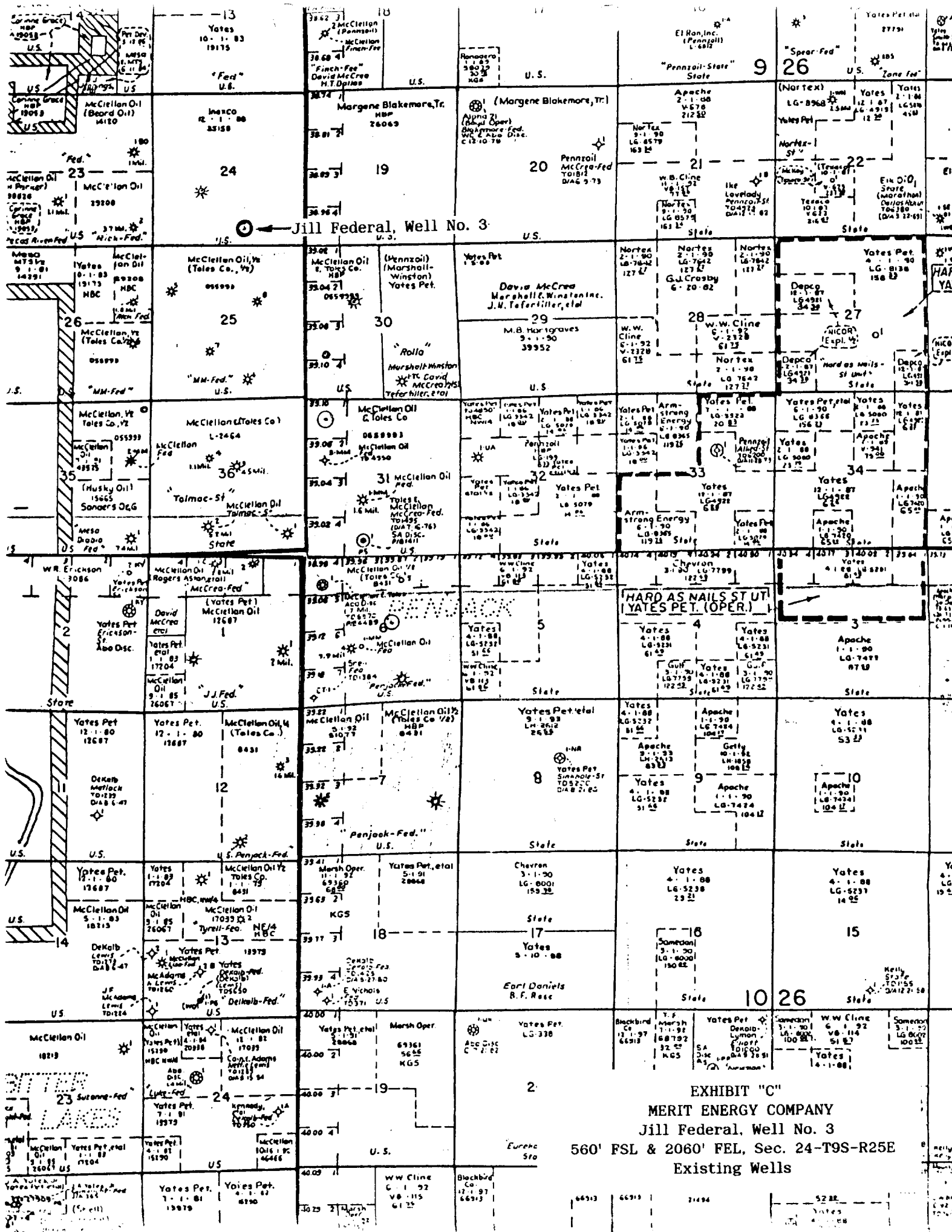


EXHIBIT "A"  
 MERIT ENERGY COMPANY  
 Jill Federal, Well No. 3  
 560' FSL & 2060' FEL, Sec. 24-T9S-R25E  
 Existing Access Road: ———  
 Proposed Access Road: - - -







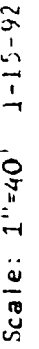


EXHIBIT "D"  
MERIT ENERGY COMPANY  
Jill Federal, Well No. 3  
Pad & Pit Layout

## BLOWOUT PREVENTOR ARRANGEMENT

2M SYSTEM

10" SHAFFER TYPE "E", 3000 psi WP

80 GALLON, 4 STATION KOOMEY ACCUMULATOR

3000 psi WP CHOKE MANIFOLD

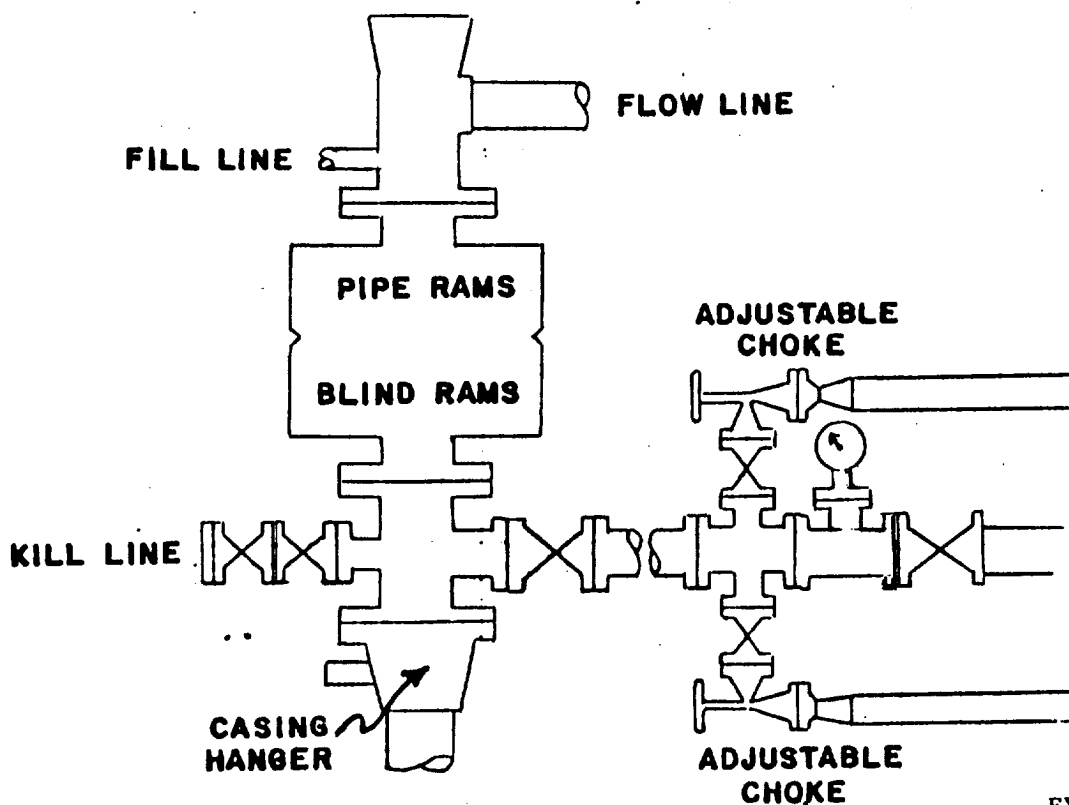


EXHIBIT "E"  
MERIT ENERGY COMPANY  
Jill Federal, Well No. 3  
BOP Specifications