

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL [X] DEEPEN [] PLUG BACK []

b. TYPE OF WELL OIL WELL [X] GAS WELL [] OTHER IN-FILL WELL [] SINGLE ZONE [] MULTIPLE ZONE []

2. NAME OF OPERATOR AVON ENERGY CORPORATION Ph. 915-683-5449

3. ADDRESS OF OPERATOR 415 W. Wall, Ste. 1810 Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At surface (Unit A) 1270' FNL, 100' FEL, Sec. 30-17S-31E RECEIVED FEB 27 1991 O. C. D. ARTESIA OFFICE

5. LEASE DESIGNATION AND SERIAL NO. LC-065014

6. IF INDIAN, ALLOTTEE OR TRIBE NAME --

7. UNIT AGREEMENT NAME --

8. FARM OR LEASE NAME Max Friess MA

9. WELL NO. 5

10. FIELD AND POOL, OR WILDCAT Grayburg Jackson

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 30-17S-31E

12. COUNTY OR PARISH Eddy

13. STATE N.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 4.6 miles southeast of Loco Hills

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 100'

16. NO. OF ACRES IN LEASE 160

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 800'±

19. PROPOSED DEPTH 3500'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3612.8 GL

22. APPROX. DATE WORK WILL START* As Soon As Possible

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24.0# J-55	600'±	300 sx Class C (Circulate)
7-7/8"	5-1/2"	15.5# K-55	3500'± (tie back)	200 sx Class C + 600 sx Lite

Propose to drill to 3500'± and complete as an in-fill non-standard Grayburg producer. State approval of the unorthodox location is pending. Set 5-1/2" production casing to TD, cemented with sufficient cement to isolate all porosity zones. Selectively perforate favorable Grayburg zones.

Run 2-7/8" tubing to perforations and treat formation with 15% HCL Sand-frac formation and test to tanks.

See attached Drilling Data and Surface Use Plan.

The surface grazing lessee has been advised of the proposed operation.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Post ID-1 3-8-91 New Line + API RECEIVED OCT 23 11 13 AM '90

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED JERRY W. LONG TITLE Permit Agent DATE October 26, 1990

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE 2-26-91

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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 Avon Energy Corporation			Lease Max Friess MA		Well No. 5
Unit Letter H A	Section 30	Township 17 South	Range 31 East	County NM/M Eddy	
Actual Footage Location of Well: 1270 feet from the North line and 100 feet from the East line					
Ground level Elev. 3612.8	Producing Formation Grayburg	Pool Grayburg-Jackson	Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

SINGLE LEASE

3. 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.?

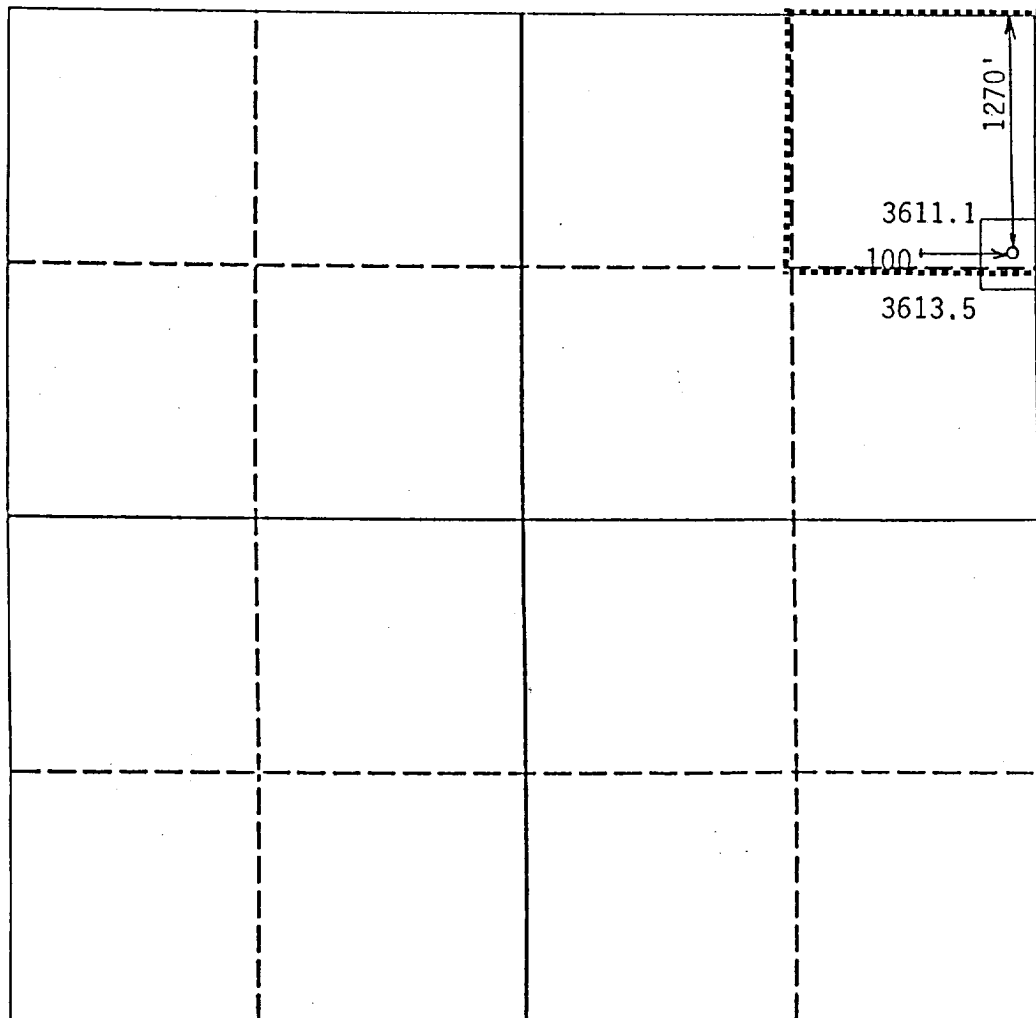
☐ Yes

☐ No

If answer is "yes" type of consolidation

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature *Jerry W. Long*
Printed Name **JERRY W. LONG**

Position
Permit Agent

Company
AVON ENERGY CORPORATION

Date
October 26, 1990

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

October 22, 1990

Signature & Seal of
Professional Surveyor **P. R. Patton**

P.R. Patton

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

PERTINENT INFORMATION

For

AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LOCATED: 4.6 air miles southeast of
Loco Hills, New Mexico

FEDERAL LEASE NUMBER: LC-065014

LEASE ISSUED: December 31, 1938 HBP

ACRES IN LEASE: 160 Ac.

RECORD LESSEE: Soccoro Petroleum Company

BOND COVERAGE: Alta Corp. Bond will be changed
to include Avon Energy Corporation

AUTHORITY TO OPERATE: Assignment of Operating Rights

SURFACE OWNERSHIP: State

GRAZING PERMITTEE: Williams & Son Cattle Co.
Box 30
Maljamar, New Mexico 88264
Phone 505-676-2293

POOL RULES: General Oil Rules - 40 Ac. Spacing

EXHIBITS: A. Road and Contour Map
B. Lease and Well Map
C. Rig Layout
D. BOP Diagram

SUPPLEMENTAL DRILLING DATA

AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LC-065014

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Order No.1:

1. SURFACE FORMATION: Recent

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Salt	550'	Queen	2450'
Yates	1600'	Grayburg	2850'
Seven Rivers	2000'	San Andres	3300'

3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATION:

Water - Possible groundwater from 0' to 300'

Oil - 2000' to TD

Gas - None anticipated

4. PROPOSED CASING PROGRAM:

8-5/8" Casing - Set 600' of 24#, J-55, Surface Casing

5-1/2" Casing - Set 3500' of 15.5#, K-55, Production Casing

Both strings of casings will be satisfactorily tested to 1000 psi.

5. PRESSURE CONTROL EQUIPMENT: Install a 2M, Series 900, Type "E" Shaffer Double Hydraulic BOP on the 8-5/8" surface casing prior to drilling into the Queen. Due to depleted nature of the reservoir, it is requested that a waiver be granted to test pressure control equipment to 1000 psi. using rig pump, instead of the normal 2000 psi. test. Exhibit D is a diagramatic sketch of the BOP equipment.

OK

6. CIRCULATING MEDIUM: Drill with fresh water from surface to setting depth of surface casing. Drill remainder of hole with brine water, using additives to control water loss, viscosity and mud weight.

7. AUXILIARY EQUIPMENT: Equipment will include pit level monitor and a full-opening safety valve.
8. TESTING, LOGGING AND CORING PROGRAM:
 - Samples: Samples will be caught at 10' intervals from below the surface casing to total depth.
 - DST and Cores: None anticipated
 - Logging: Density-Neutron log
Gamma Ray-Neutron log
9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:
 - No abnormal pressures or temperatures anticipated.
 - Precautions will be taken to monitor possible traces hydrogen sulfide gas in the Grayburg.
10. ANTICIPATED STARTING DATE: Drilling will commence upon Federal and State approval. Drilling and completion will require about 30 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LC-065014

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, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation 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 a road map showing the location of the proposed well as staked. The well is approximately 4.6 miles southeast of Loco Hills, New Mexico.
- B. Directions: Go east from Loco Hills, N.M. on U.S. 82 a distance of 4.9 miles. Go south on lease road for 0.8 mile. Turn west on south side of tank battery and go 0.25 mile to drillsite.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The new road will be about 1400' long and about 20' wide.
- B. Surfacing Material: The new road and well pad will be surfaced with 6" of caliche.
- C. Maximum Grade: Less than 2%
- D. Turnouts: No traffic turnouts are necessary.
- E. Drainage Design: The road will be constructed with a 6" crown and appropriate water turnouts to provide proper drainage.
- F. Culverts: None necessary

- G. Cuts and Fills: Construction of the drill pad will require about 2' cut on the east side and 2' of fill on the west side. Surface soil will be stock-piled on the north edge of the location for use in rehabilitating the disturbed area.
 - H. Gates, Cattle Guards: None necessary
 - I. Right-of-Way: A Public land Right-of-Way is requested for the off-lease portion of the access road. The R-O-W will start at the Turner "B" battery in the NW/4 Sec.29 and go 1300' west to lease NM-065014.
3. LOCATION OF EXISTING WELLS:
- A. See Exhibit B
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. Temporary production and storage facilities will be located on the well pad.
 - B. An application for permanent flow lines will be filed at a later date, if the well is commercial.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. Water for drilling and completion will be obtained from a commercial source and trucked over existing roads.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. Caliche for surfacing the road and pad will be purchased from a Federal pit located in the SESW Sec.20-17S-31E. Topsoil will be stock piled at the edge of the location for rehabilitation.
7. METHODS OF HANDLING WASTE DISPOSAL:
- A. Drill cuttings will be disposed of in the drilling pits.
 - B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
 - C. Water produced during test will be disposed of in the drilling pits. Oil produced during test will be stored in test 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. Location of the trash pit is shown on Exhibit "C".
- 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. WELL SITE LAYOUT:
 - A. The wellsite, surrounded by a 400' X 400' area has been surveyed and flagged.
 - B. Dimensions and relative location of the drill pad and pit are shown on Exhibit C.
- 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 wellsite in an aesthetically pleasing condition as possible.
 - B. Any unguarded pits containing fluids will be fenced until they are filled.
 - C. If the well is non-productive the disturbed area will be rehabilitated to surface owner requirements and will be accomplished as expeditiously as possible.
- 11. OTHER INFORMATION:
 - A. Topography: The wellsite and access road are located in the Querecho Plains. The project area drains to the west toward Cedar Lake Draw. Construction of the drill pad will require leveling of 3' sand dunes. Dry arroyos are located on the north and south sides of the drillsite.
 - B. Soil: The surface soil is fine sand with caliche and chert inclusions.

- C. Flora and Fauna: Vegetation consists of mesquite, sagebrush, yucca, and various weeds and grasses. Ground cover is about 10%. Wildlife in the area is that typical of semi-arid desert land, such as coyotes, rodents, reptiles and birds.
- D. Ponds or Streams: None
- E. Residences and Other Structures: None in this area.
- F. Archaeological, Historical and Other Cultural Sites:
A review by Archaeological Services Consultants determined that a pre-historic site is located 100' west of the drill center. A north-south fence will be constructed to protect this site.
- G. Land Use: The surface is used for cattle grazing.
- H. Surface Ownership: The drillsite and 100' of access road are located on State surface. 1300' of access road is located on off-lease Federal surface. The grazing lessee for all of the disturbed area is Williams & Son Cattle Company, Box 30, Maljamar, New Mexico.

12. OPERATOR'S REPRESENTATIVE:

Representative responsible for assuring compliance with the approved Surface Use Plan:

Mr. Robert Setzler
P.O. Box 38
Loco Hills, New Mexico 88255
Phone 505-677-2360

13. CERTIFICATION:

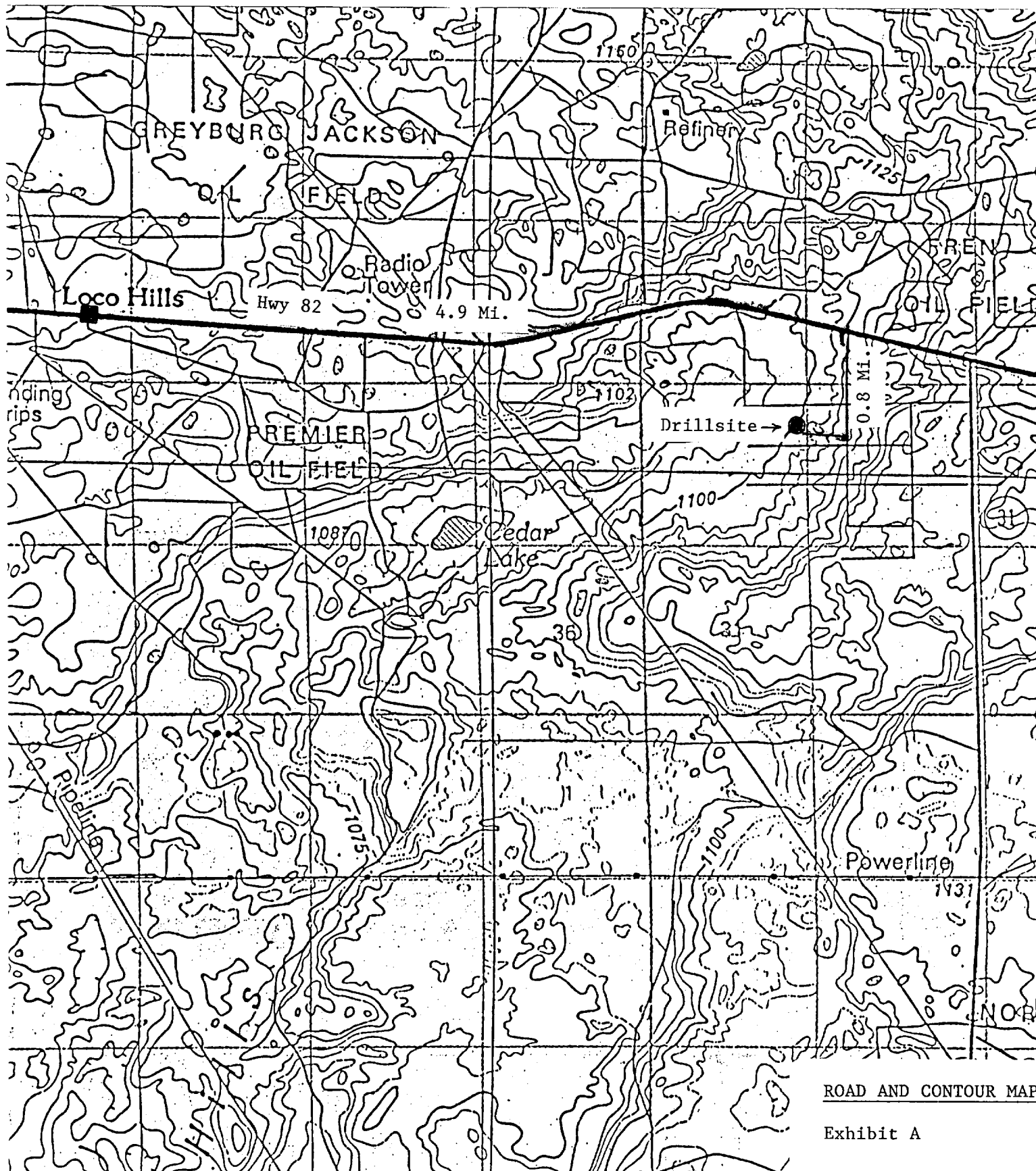
I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; that the work associated with the operations proposed herein will be performed by AVON ENERGY CORPORATION and its sub-contractors 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 26, 1990
Date:


JERRY W. LONG, Permit Agent for:
AVON ENERGY CORPORATION

AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LC-065014

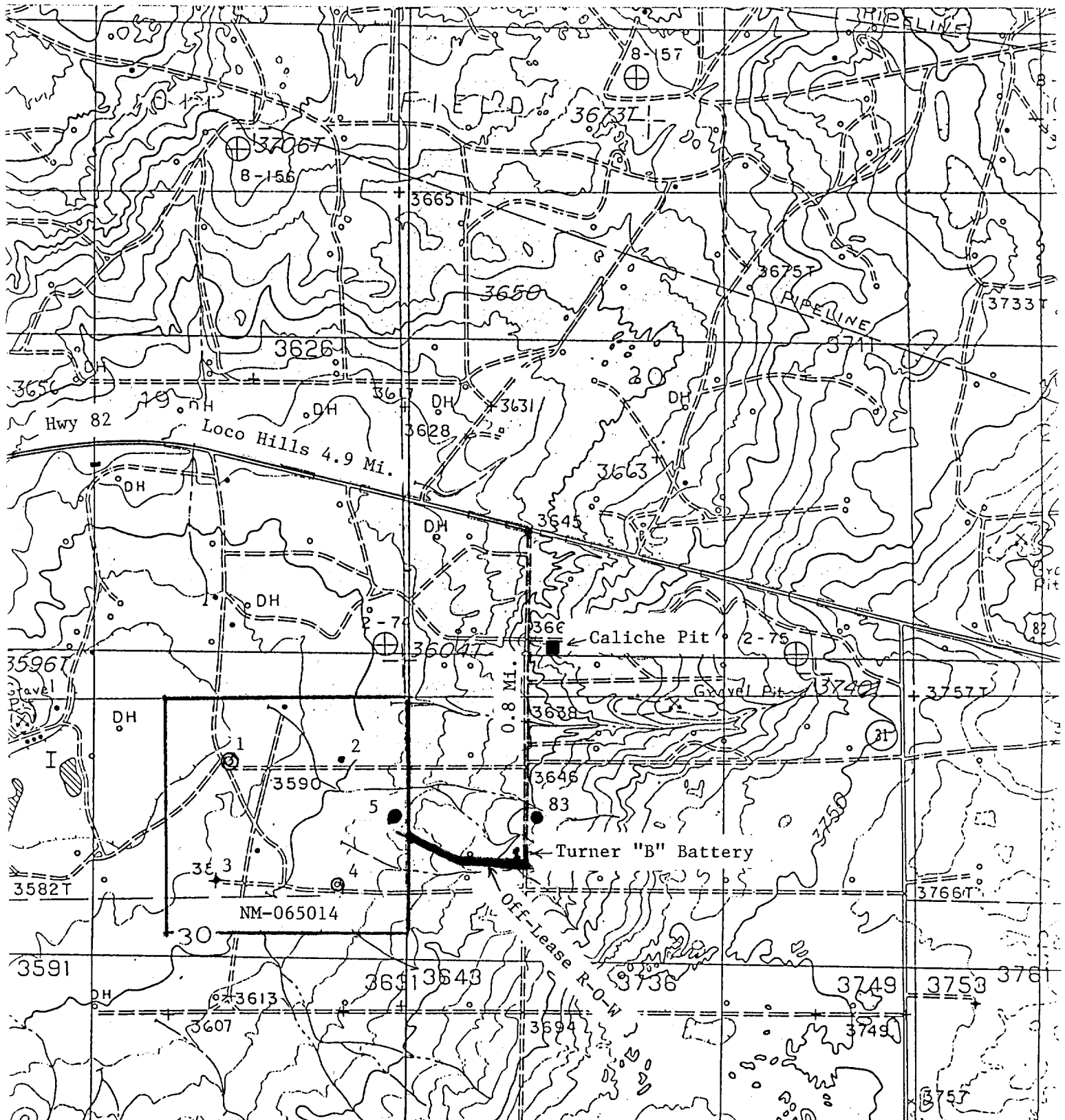


ROAD AND CONTOUR MAP

Exhibit A

AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LC-065014

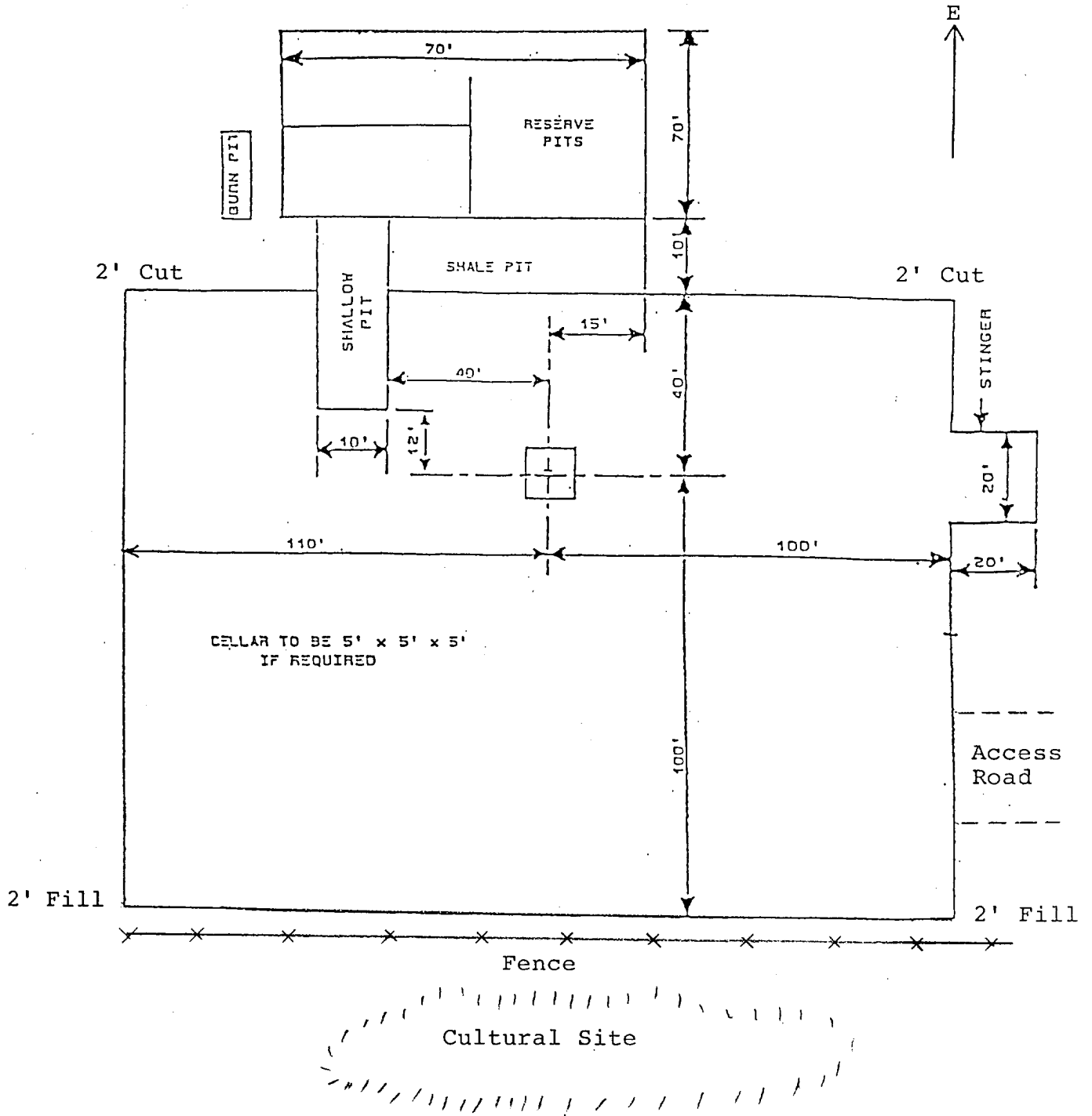


LEASE AND WELL MAP

Exhibit B

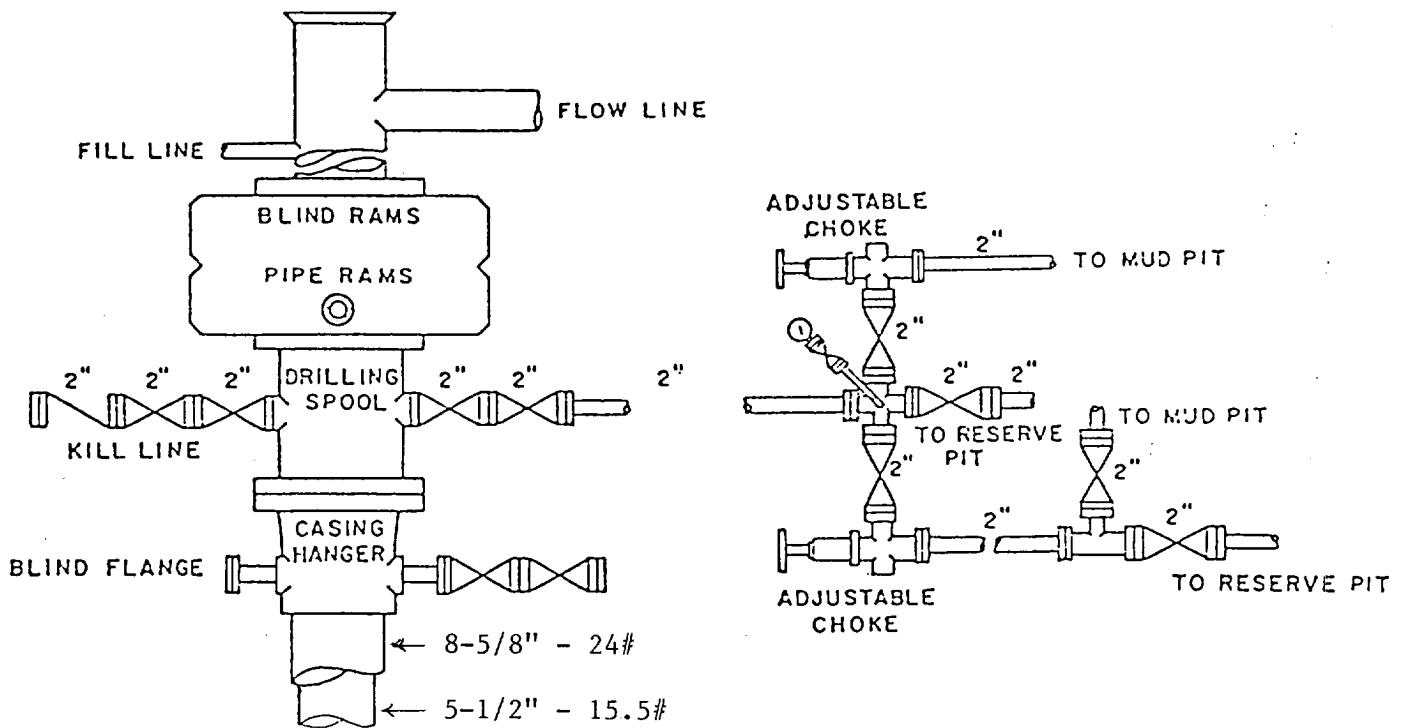
AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LC-065014



AVON ENERGY CORPORATION
No.5 Max Friess MA
1270'FNL 100'FEL Sec.30-17S-31E
Eddy County, N.M.

LC-065014



BOP DIAGRAM

2000# Working Pressure
Rams Operated Daily