

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 IN-FILL WELL

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

AVON ENERGY CORPORATION

Ph. 505-677-3223

3. ADDRESS OF OPERATOR

P.O. Box 38

Loco Hills, New Mexico 88255

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

At surface

150' FSL 2480' FEL, Sec. 17-17S-31E

At proposed prod. zone

Same

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

5.5 air miles ENE of Loco Hills, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

2480'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

725' ±

16. NO. OF ACRES IN LEASE

1786.15

19. PROPOSED DEPTH

3700'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

3674' GL.

22. APPROX. DATE WORK WILL START*

As Soon As Possible

23.

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	3700' ±	200 sx Class C + 600 sx Lite (Tie Back To 8-5/8")

Propose to drill to about 3700' 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.

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 February 18, 1991

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

COMMISSIONER OF GEOLOGY AND MINES

TITLE

DATE

4-5-91

GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

ATTACHED

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

Post ID-1
4-12-91
New Loc & API

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

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

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 Turner "B" Federal		Well No. 105
Unit Letter 0	Section 17	Township 17 South	Range 31 East	County Eddy	
Actual Footage Location of Well: 150 feet from the South line and 2480 feet from the East line					
Ground level Elev. 3674	Producing Formation Grayburg		Pool Grayburg-Jackson		Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.?

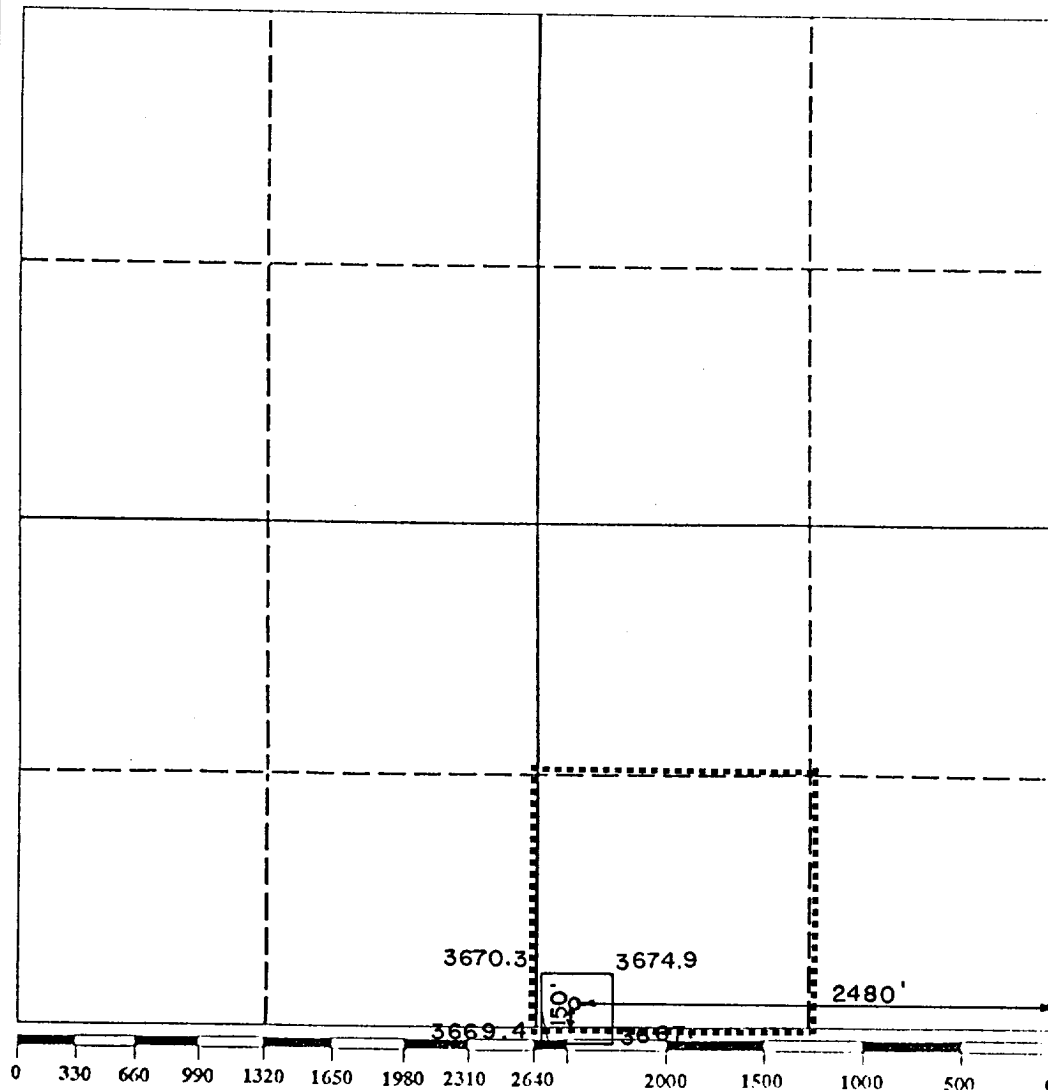
☐ Yes

☐ 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

Printed Name

JERRY V. LONG

Position

Permit Agent

Company

AVON ENERGY CORPORATION

Date

February 18, 1991

SURVEYOR CERTIFICATION

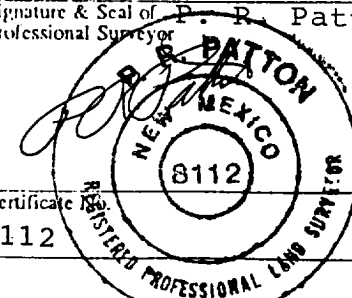
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

February 5, 1991

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

Certificate
8112



PERTINENT INFORMATION

For

AVON ENERGY CORPORATION
No.105 Turner "B"
SWSE Sec.17-17S-31E
Eddy County, N.M.

LOCATED: 5.5 air miles ENE of
Loco Hills, New Mexico

FEDERAL LEASE NUMBER: LC 029395-B

LEASE ISSUED: June 13, 1934 - HBP

ACRES IN LEASE: 1,786.15 Ac.

RECORD LESSEE: Atlantic Richfield Company

BOND COVERAGE: Statewide Bond of
Avon Energy Corporation

AUTHORITY TO OPERATE: Assignment of Operating Rights

SURFACE OWNERSHIP: Federal

GRAZING PERMITTEE: Charles R. Martin, Inc.
P.O. Box 706
Artesia, New Mexico 88210
Phone 505-746-2796

POOL RULES: General Oil Rules - 40 Ac. Spacing

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

SUPPLEMENTAL DRILLING DATA

AVON ENERGY CORPORATION
No.105 Turner "B"
SWSE Sec.17-17S-31E
Eddy County, N.M.

LC 029395-B

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:

Rustler	625'	Queen	2600'
Salt	700'	Grayburg	2950'
Yates	1600'	San Andres	3400'
Seven Rivers	1800'		

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
Pressure tested to 1000 psi.

5-1/2" Casing - Set 3700' of 15.5#, K-55, Production Casing
Pressure tested to 1500 psi.

5. PRESSURE CONTROL EQUIPMENT: Install a 2M, Series 600, 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 diagrammatic sketch of the BOP equipment.
- OK
- 55

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, a full-opening safety valve and a gas detector.
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
Mud 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.105 Turner "B"

SWSE Sec.17-17S-31E

Eddy County, N.M.

LC 029395-B

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 5.5 miles east-northeast of Loco Hills, New Mexico.
- B. Directions: Go east from Loco Hills, N.M. on U.S. 82 a distance of 5.3 miles. Go northeast on lease road for 0.8 mile. Turn west on lease road and go 500' to drillsite.

2. PLANNED ACCESS ROAD:

- A. Length and Width: A new road will not be necessary. An existing lease road crosses the drill pad.
- B. Surfacing Material: The 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 existing road will be maintained.
- F. Culverts: None necessary
- G. Cuts and Fills: Construction of the drill pad will require leveling of 2' sand dunes.

H. Gates, Cattle Guards: None necessary

3. LOCATION OF EXISTING WELLS:

A. See Exhibit B

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Pipelines on the north, west and south sides of the drill pad will be located and waivers will be obtained from the owners.

B. Temporary production facilities will be located on the well pad. An application for permanent flow lines will be filed at a later date.

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 southwest toward Cedar Lake Draw.

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 5%. 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

F. Archaeological, Historical and Other Cultural Sites:
A review by Archaeological Services Consultants determined that no cultural resources will be disturbed by this operation.

G. Land Use: The surface is used for cattle grazing.

H. Surface Ownership: The drillsite and access road are on-lease Public surface. The grazing lessee is Charles R. Martin, Inc., P.O. Box 706, Artesia, N.M. 88210.

12. OPERATOR'S REPRESENTATIVE:

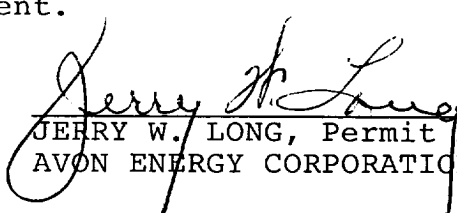
Representative responsible for assuring compliance with the approved Surface Use Plan:

Mr. Robert Setzler
P.O. Box 38
Loco Hills, New Mexico 88255
Phone 505-677-3223

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.

February 18, 1991
Date:


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

AVON ENERGY CORPORATION
No.105 Turner "B"
SWSE Sec.17-17S-31E
Eddy County, N.M.

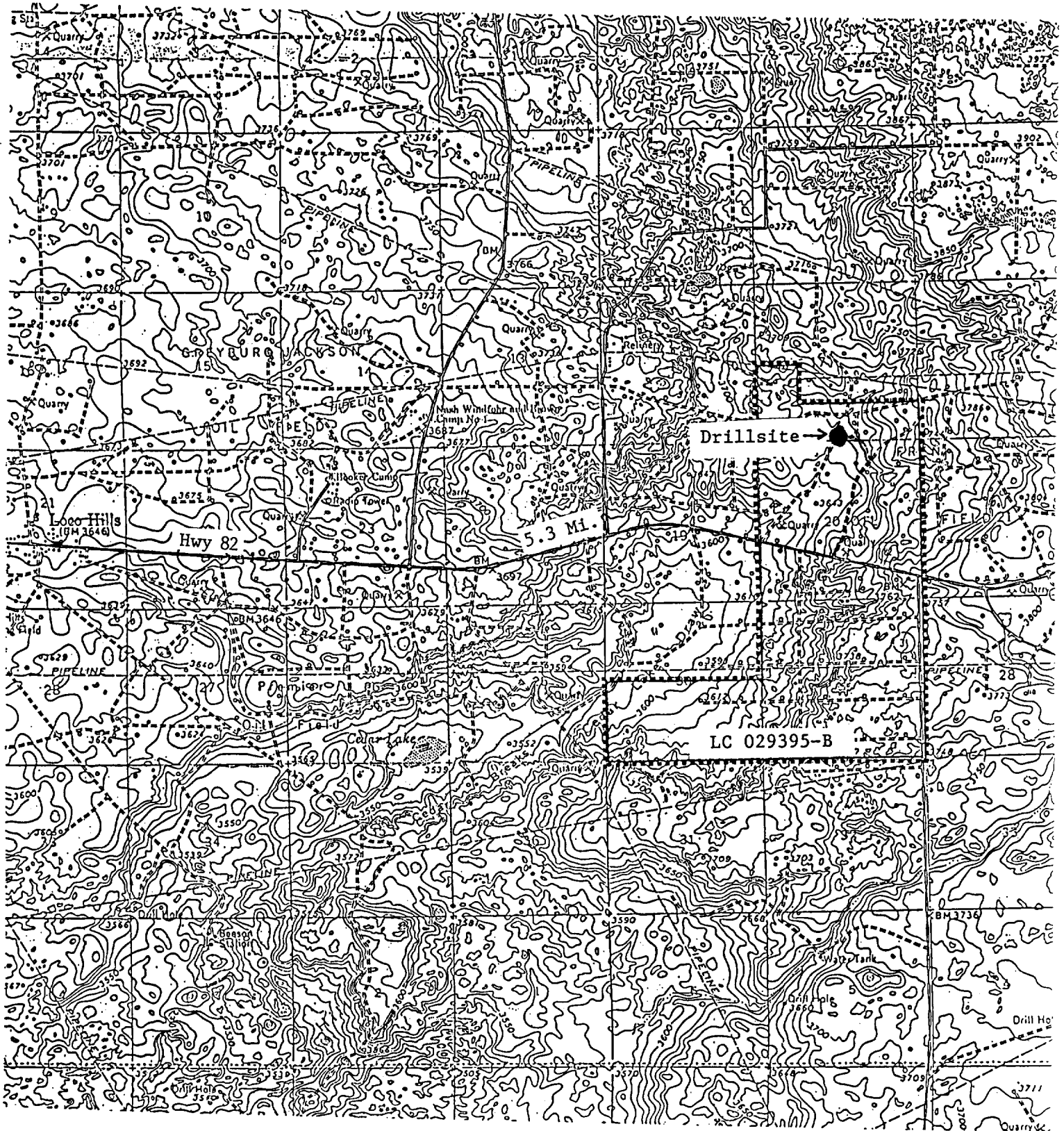


EXHIBIT A

LEASE AND CONTOUR MAP

AVON ENERGY CORPORATION
No.105 Turner "B"
SWSE Sec.17-17S-31E
Eddy County, N.M.

LC 029395-B

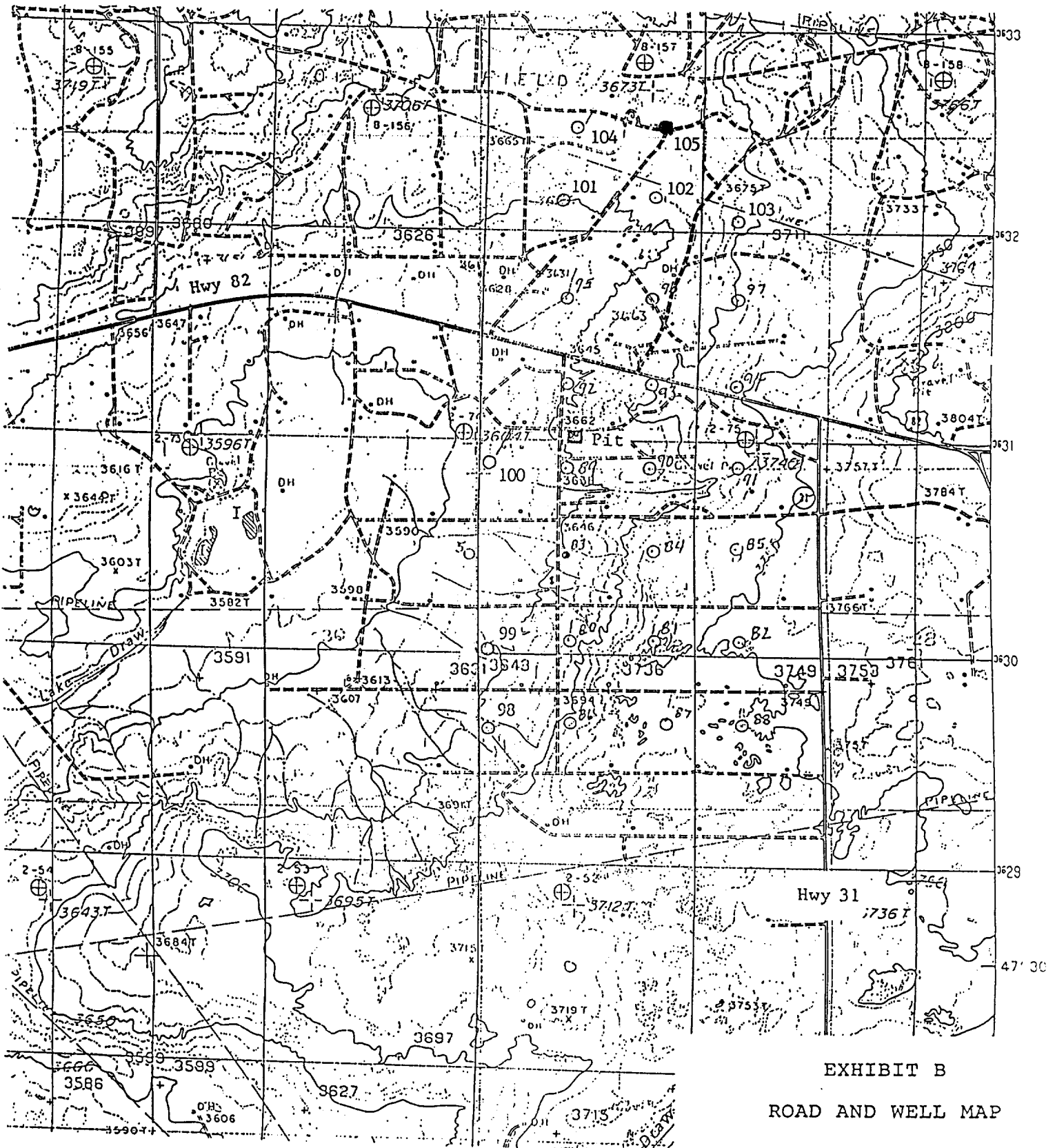
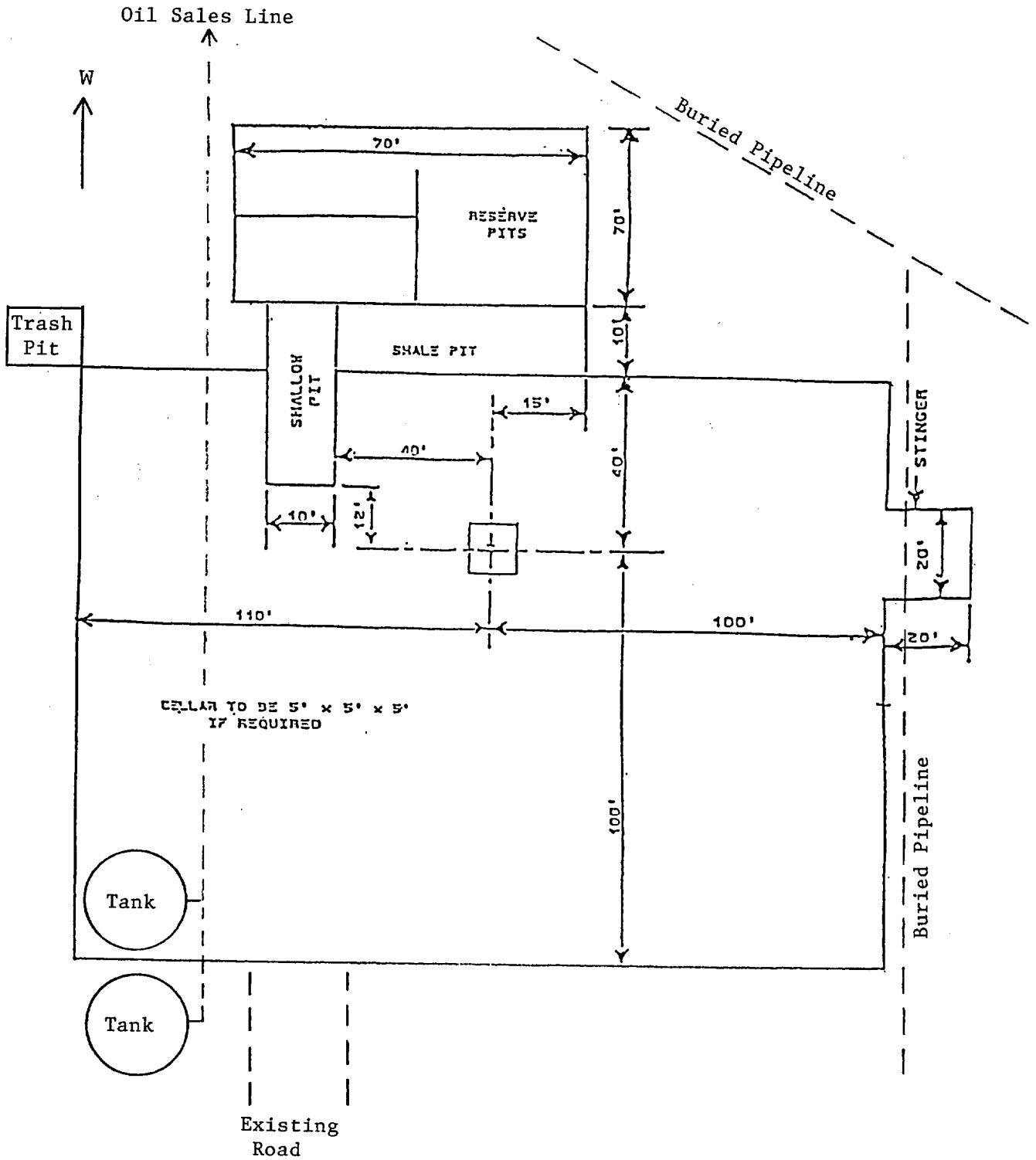


EXHIBIT B
ROAD AND WELL MAP

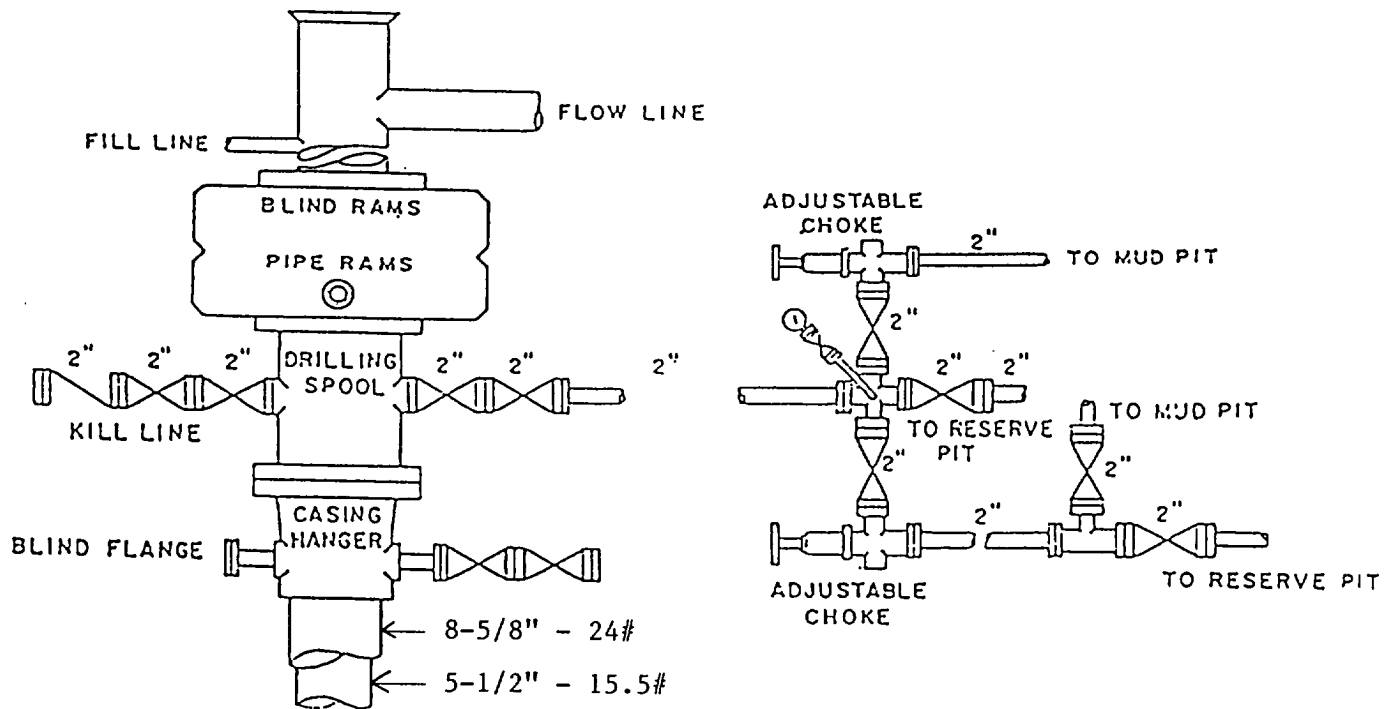
AVON ENERGY CORPORATION
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SWSE Sec.17-17S-31E
Eddy County, N.M.



DRILL PAD LAYOUT

EXHIBIT C

AVON ENERGY CORPORATION
No.105 Turner "B"
SWSE Sec.17-17S-31E
Eddy County, N.M.



BOP DIAGRAM

2000# Working Pressure
Rams Operated Daily