

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-045-24293

## 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

Tenneco Oil Company

## 3. ADDRESS OF OPERATOR

720 S. Colorado Blvd., Denver, CO 80222

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface1900' FNL, 1950' FEL  
At proposed prod. zone

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

2 miles south of Farmington

## 15. DISTANCE FROM PROPOSED\*

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

## 16. NO. OF ACRES IN LEASE

1560

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

E 320

## 18. DISTANCE FROM PROPOSED LOCATION\*

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

## 19. PROPOSED DEPTH

5880

## 20. ROTARY OR CABLE TOOLS

Rotary

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

5358 GR

## 22. APPROX. DATE WORK WILL START\*

ASAP

## 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" new	24#, K-55	± 300'	Circulate to surface
7 7/8"	4 1/2" new	10.5#, K-55	± 5880'	Cement in 2 stages
				Circulate to surface

SEE ATTACHED

No abnormal temperatures, pressures or geologic hazards are expected.

If well is non-productive, plug &amp; abandon per USGS/BLM regulations.

THE GAS IS DEDICATED

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 M. L. FreemanTITLE Staff Production AnalystDATE February 1, 1980

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

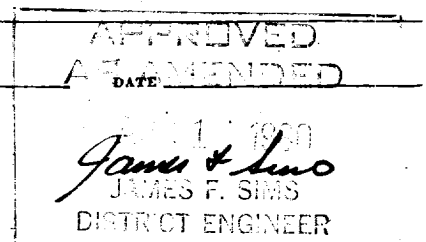
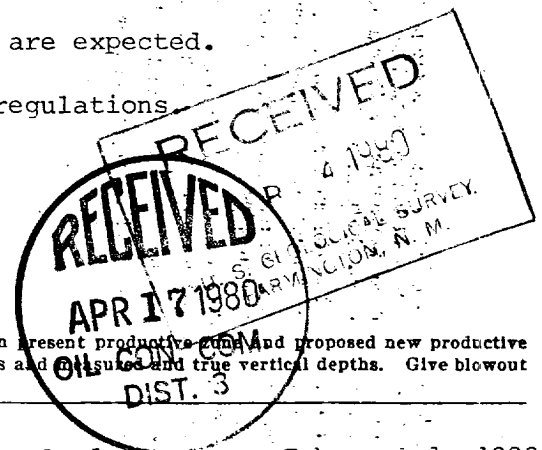
CONDITIONS OF APPROVAL, IF ANY:

OK [Signature]

Model C-10u for NSL

\*See Instructions On Reverse Side

NM3000



## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
OIL AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-107  
Revised 10-1-78

All distances must be from the outer boundaries of the Section

Lessor <b>TENNECO OIL COMPANY</b>			Lease <b>CALLOW</b>		Well No. <b>8-E</b>
Letter <b>G</b>	Section <b>27</b>	Township <b>29N</b>	Range <b>13W</b>	County <b>San Juan</b>	
Well Footage Location of Well:					
1900 feet from the North line and		1950 feet from the East line			
and Level Elev. <b>5358</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>	Dedicated Acreage: <b>E 320 Acres</b>	

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).
3. If more than one lease of different ownership is dedicated to the well, have the interests 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 interests, has been approved by the Commission.

	<b>CERTIFICATION</b>  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.   Name <b>M. L. Freeman</b> Position <b>Staff Production Analyst</b> Company <b>Tenneco Oil Company</b> Date <b>February 1, 1980</b>

330 660 990 1320 1650 1980 2310 2640 2000 1800 1000 500 0

# TENNECO OIL COMPANY

## PROGNOSIS TO DRILL AND COMPLETE

DIVISION: Rocky Mountain

DATE: September 13, 1979

LEASE: Callow

WELL NO.: 8-E

LOCATION: 1900' FNL, 1950' FEL  
Sec. 27, T 29N, R 13W  
San Juan County, New Mexico

FIELD: Basin Dakota

ESTIMATED ELEVATION: 5350'

ESTIMATED TOTAL DEPTH: 5880'

PROJECTED HORIZON: Dakota

### DRILLING, CASING AND CEMENT PROGRAM:

- (1) MIRURT.
- (2) Drill 12 1/4" hole to  $\pm$  300'. Run 8 5/8" O.D. 24# K-55 ST&C casing to 300'. Cement with sufficient volume to circulate cement to surface.
- (3) WOC minimum of 12 hours. Nipple up BOE. Test BOP, blind and pipe rams, casing and manifold to 600 psi prior to drilling out for 1/2 hour.
- (4) Drill 7 7/8" hole to T.D.
- (5) Run open hole logs as required.
- (6) Run 4 1/2", 10.5#, K-55 ST&C casing. Cement in 2 stages with stage collar  $\pm$  4100'.
- (7) Cement first stage with sufficient volume to raise cement to stage tool. Circulate and WOC 4 hours between stages. Cement 2nd stage with sufficient volume to circulate to surface.
- (8) Set casing slips, cut off 4 1/2" casing. Nipple up well head.
- (9) RD. MORT.

### ESTIMATED FORMATION TOPS: SURFACE - KIRTLAND SHALE

OJO	210'	Water		
Pictured Cliffs	1140'	Gas	Mancos	3910' Gas
Lewis	1310'		Gallup	4830' Gas
Cliffhouse	2710'	Gas	Greenhorn	5610'
Menefee	2760'		Dakota	5700' Gas
Point Lookout	3590'	Gas	TD	5880'

### DRILLING MUD PROGRAM:

- 0 - 250' Native solids. NC-WL, use sufficient viscosity to clean hole and run casing.
- 250 - T.D. Low solids. 15 cc WL, 9.0#/gal. Use sufficient viscosity to clean hole.

### CORING AND TESTING PROGRAM:

NONE ANTICIPATED.

### DEVIATION SURVEYS:

1. Survey surface hole at 100' intervals. Maximum allowable deviation at
2. FROM SURFACE TO TOTAL DEPTH DEVIATION SURVEYS MUST BE TAKEN EVERY 500' OR EACH TRIP WHICHEVER IS FIRST. This may entail running the TOTCO on wireline. Record each survey on the AAODC Drilling Report Sheet. Maximum allowable change in deviation is 1° per 100'.

### SAMPLES:

0 - 5400' 30' Samples  
5400' - TD 10' Samples

### WELL SURVEYS:

Majority of logs will be cased hole. GR Neutron on TDT logs.

Open hole logs will be GR induction.

BOP: 10" 900 series Double Ram Hydraulic with complete shut off and pipe rams.

PREVENTORS MUST BE CHECKED FOR OPERATION EVERY 24 HOURS, AND THE CHECK MUST BE RECORDED ON THE AAODC DRILLING REPORT SHEET.

## REPORTS

Drilling reports for the past 24 hours will include depth, footage, time distribution, activity breakdown, mud properties, bit record, bottom hole assembly, daily and cumulative mud costs, plus any other pertinent information; will be called into Tenneco Oil Company, Denver, Colorado between 7:30 A.M. and 8:00 A.M.

1. 303-758-7130 (office) - Don Barnes  
303-758-7287 - Don Barnes private line - Monday-Friday (before 7:45 A.M.)
2. 303-936-0704 (home) - Don Barnes - weekends and holidays
3. 303-795-0221 (home) - John Owen - if Don Barnes not available

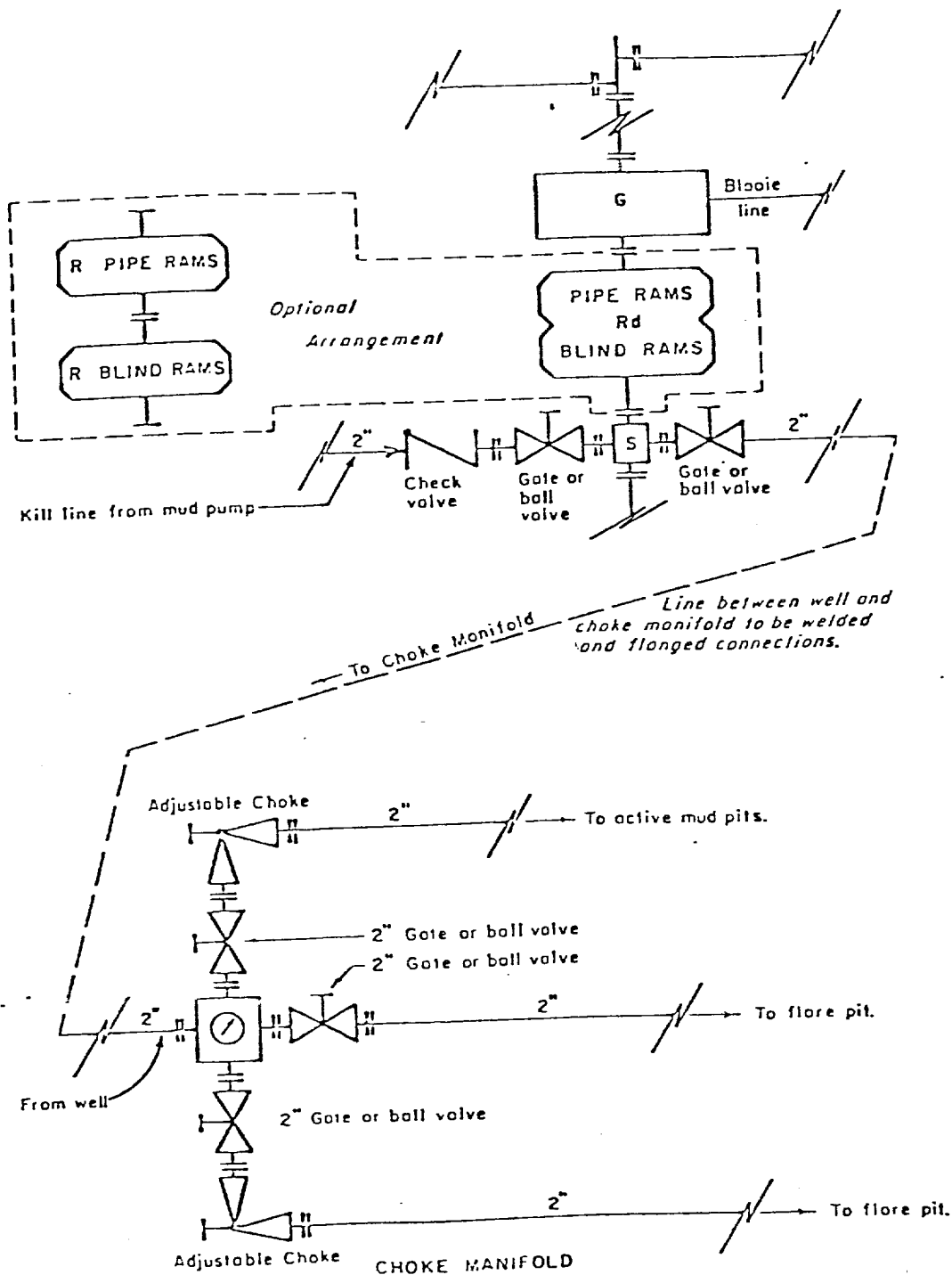
The yellow sheet of the IADC Report to be filled out completely, the original copy of the drilling time recorder, and copies of any invoices from this well signed and received for Tenneco Oil Company will be mailed daily to:

TENNECO OIL COMPANY  
PENTHOUSE  
720 SOUTH COLORADO BOULEVARD  
DENVER, COLORADO 80222

ATTENTION: DRILLING DEPARTMENT

In case of an emergency, notify the following:

1. Mr. Don Barnes, Division Drilling Engineer - 303-936-0704.
2. Mr. John Owen, Project Drilling Engineer - 303-795-0221
3. Mr. Mike Lacey, Division Production Manager - 303-979-0509.



All equipment to be 3,000 psi working pressure except as noted.

- Rd Double ram type preventer with two sets of rams.
- R Single ram type preventer with one set of rams.
- S Drilling spool with side outlet connections for choke and kill lines.
- G Rotating head 150 psi working pressure minimum

#### ARRANGEMENT C

TENNECO OIL COMPANY  
ROCKY MOUNTAIN DIVISION  
REQUIRED MINIMUM  
BLOWOUT PREVENTER AND  
CHOKE MANIFOLD

1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Map No. 2.
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 1 and No. 2. Map No. 2 shows the existing roads and new proposed access roads. All known production facilities are shown on these two maps.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from a private source.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1. will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occurring.

8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to the attached Plat No. 1.
10. Plans for Restoration of the Surface - After completion of the proposed project the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
11. Other Information - The proposed site is located in Head Canyon on the south side of the San Juan River. The soil is sandy fractured sandstone supporting juniper & native grasses. The surface is privately owned with the minerals public.
12. Operator's Representative -  
SEE DRILLING PROGNOSIS
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 Tenneco Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.



L. Freeman  
Staff Production Analyst



# TENNECO OIL COMPANY

## CALCULATION SHEET

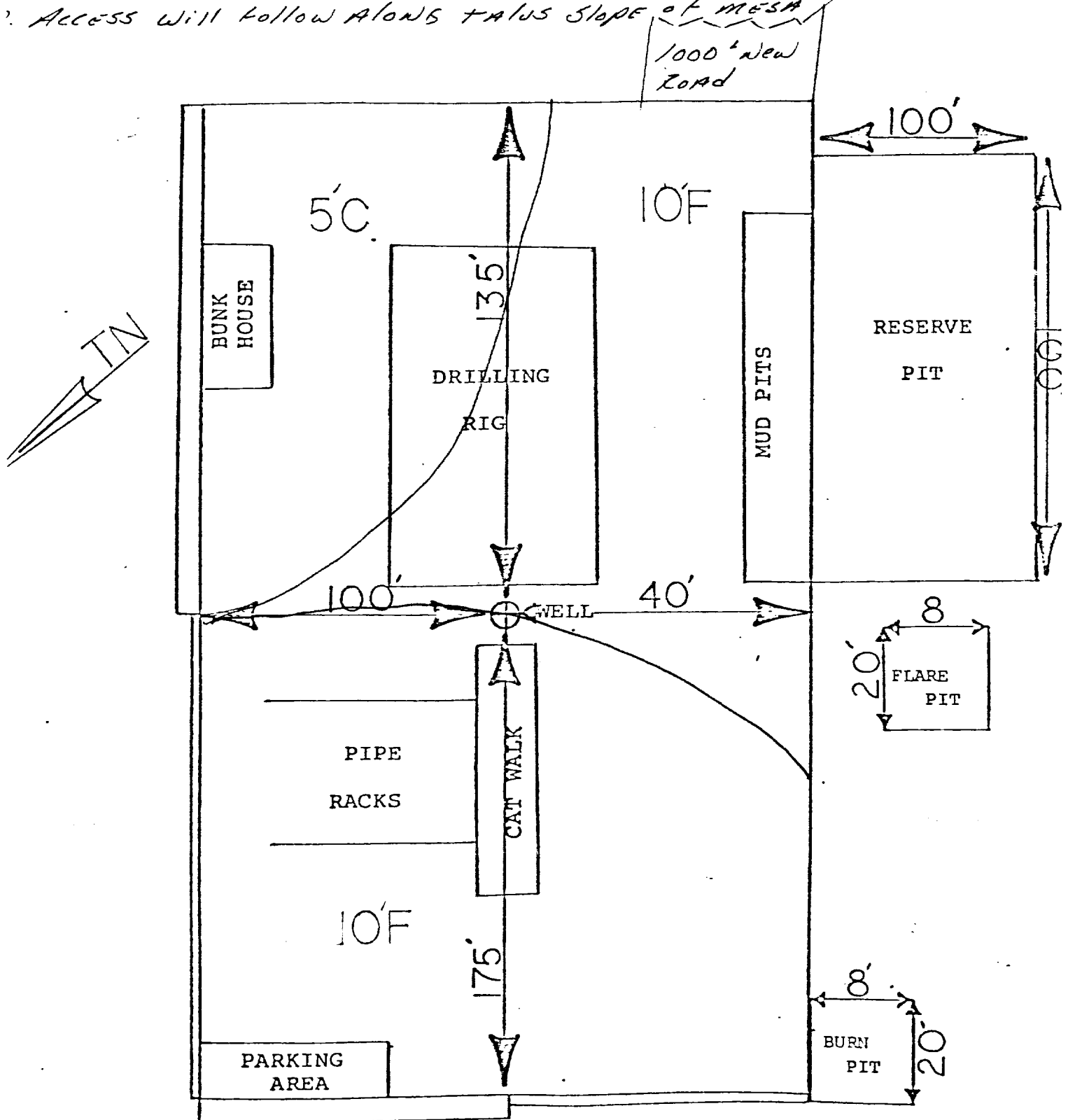
EXHIBIT

LLING WELL SITE LAYOUT *ALLOW 8E*

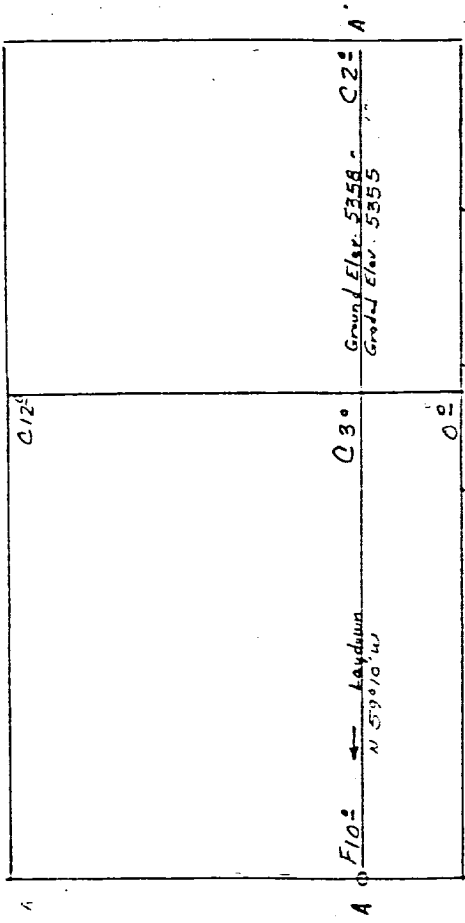
*1950 FEL 1900 FNL SEC 27 T 29N R 13W* DATE *1/11/80*

*1. DIVERT WASH ON WEST SIDE OF LOCATION*

*2. ACCESS WILL FOLLOW ALONGS TALUS SLOPE OF MESA*



TENNECO OIL COMPANY#8-E CALLOW  
 1900'FNL 1950'FEL Sec 27-T29N-R13W SAN JUAN COUNTY, NEW MEXICO



Vert. 1"=40'      A-A'      Horiz. 1"=100'

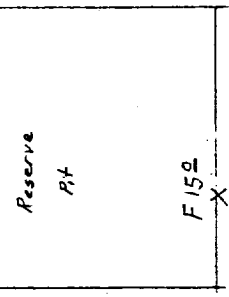
5360			
5350			
5340			
5330			

5360			
5350			
5340			
5330			

Vert. 1"=40'      C-C'      Horiz. 1"=100'

KERR LAND SURVEYING  
 Date: 1-21-80



Vicinity Map for  
TENNECO OIL COMPANY #8-E CALLOW  
1850'FNL 1850'FEL Sec 27-T29N-R13W  
SAN JUAN COUNTY, NEW MEXICO

