Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-039-22300

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: Contract # 109

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

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

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [XX] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME: Jicarilla "B"

2. NAME OF OPERATOR: Tenneco Oil Company

9. WELL NO.: ~~3E~~ ~~8~~ 8M

3. ADDRESS OF OPERATOR: 720 South Colorado Blvd., Denver, Co. 80222

10. FIELD AND POOL, OR WILDCAT: ~~Blanco MV~~ Basin Dakota

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1685' FWL, 1020' FNL
At proposed prod. zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 15, T26N, R5W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 20.2 miles North/Northeast of Counselor, NM

12. COUNTY OR PARISH: Rio Arriba | 13. STATE: N.M.

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	17. NO. OF ACRES ASSIGNED TO THIS WELL
	2560.00	320.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
	7600	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6632 GR

22. APPROX. DATE WORK WILL START*: A.S.A.P.

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	± 250'	Circulate to Surface
7 7/8"	4 1/2" New	10.5# - 11.6#	±7600'	Circulate to surface in two stages

See Attached

No abnormal temperatures, pressures, or geologic hazards are expected

The gas is dedicated

RECEIVED
FEB 22 1980
OIL CON. COM.
DIST. 3

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 Freeman TITLE ~~Staff~~ Production Analyst DATE December 27, 1979

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

APPROVED AS AMENDED
FEB 04 1980
JAMES F. SIMS
DISTRICT ENGINEER

DEC 31 1979

*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

...GY AND MINERALS DEPARTMENT — SANTA FE, NEW MEXICO 87501 — Form C-102-A

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
TENNECO OIL COMPANY	JICARILLA "B"	~~8~~ 8A

Unit Letter	Section	Township	Range	County
C	15	26N	5W	Rio Arriba

Actual Footage Location of Well:
1020 feet from the North line and 1685 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6632	Dakota / Mesa Verde	Basin Dakota / Blanco	320.00 Acres

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

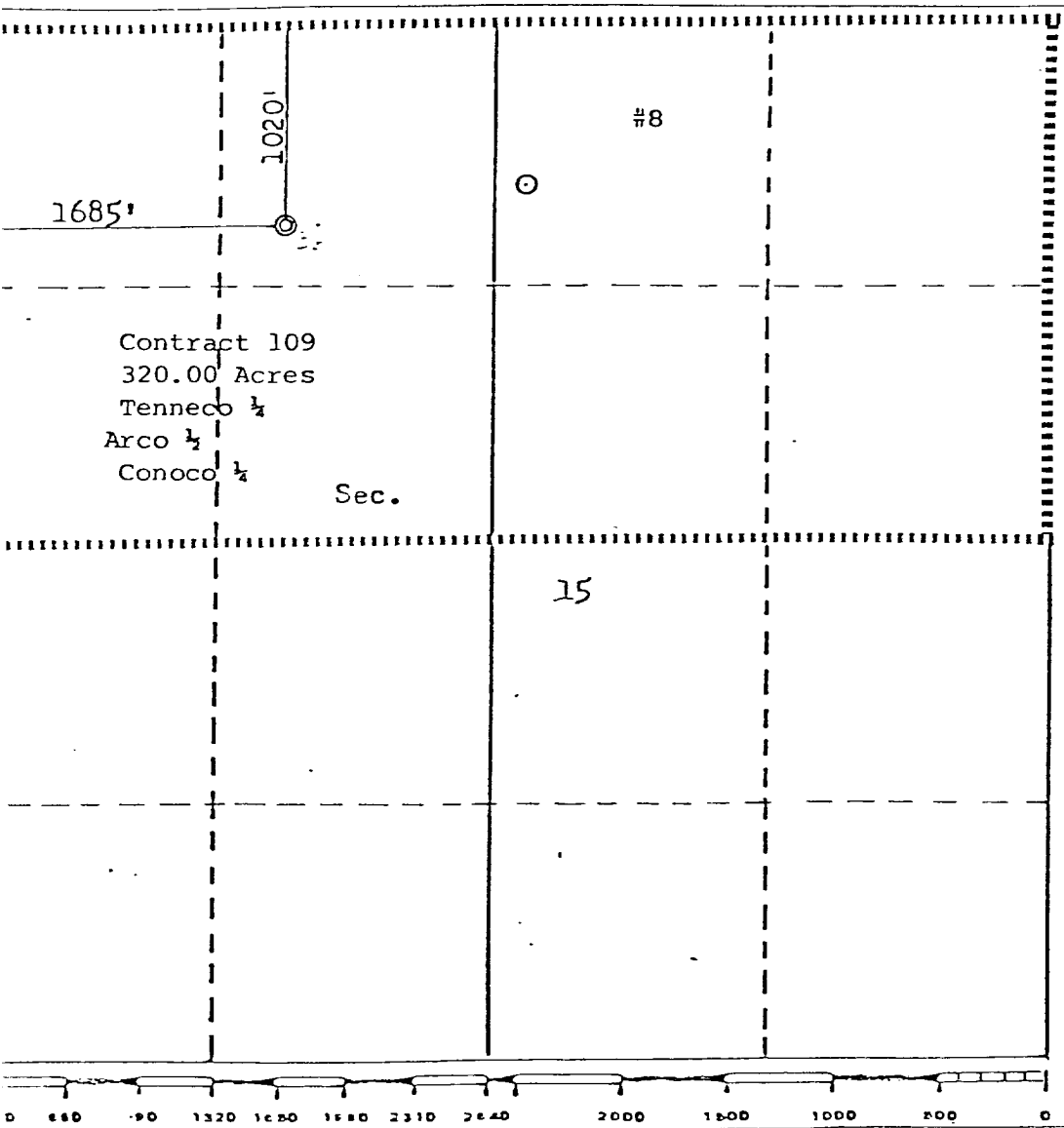
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.



CERTIFICATION

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

Name: M. Lee Freeman

Position: Staff Production Analyst

Company: Tenneco Oil Company

Date: February 28, 1980

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.

RECEIVED
MAR 3 1980
OIL CON. COM.
DIST. 3

Date Surveyed: October 27, 1979

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr Jr.

Certificate No. 3950

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — FRED B. KERR JR. — NEW MEXICO

TENNECO OIL COMPANY
ROCKY MOUNTAIN DIVISION
PENTHOUSE, 720 SOUTH COLORADO BOULEVARD
DENVER, COLORADO 80222

DRILLING PROGRAM

DATE: November 26, 1979

LEASE: Jicarilla B WELL NO.: 3-E

LOCATION: 1020' FNL, 1685' FWL
Sec. 15, T 26N, R 5W
Rio Arriba County, New Mexico

ELEVATION: 6630 Est. G.L.

TOTAL DEPTH: 7600'

PROJECTED HORIZON: Dakota - Mesaverde

SUBMITTED BY: Billy Harris DATE: _____
Billy Harris

APPROVED BY: [signature] DATE: 12/13/79

BH/ms

ESTIMATED FORMATION TOPS

OJO	2800'	Water
Pictured Cliffs	3175'	Gas
Cliffhouse	4870'	Gas
Menefee	4925'	Gas
Point Lookout	5325'	Gas
Gallup	6380'	Gas
Greenhorn	7290'	Gas
Dakota	7390'	Gas
T.D.	7600'	

DRILLING, CASING, AND CEMENT PROGRAM

1. Move in, rig up rotary tools.
2. Drill a 12 1/4" hole to ± 250'.
3. Run 9 5/8", 36#, K-55, ST&C casing to 250'.
4. Cement with Class B cement with 2% $CaCl_2$ in sufficient volume to circulate to surface.
5. Wait on cement a minimum of 12 hours. Weld on a 9 5/8" series-900 casing head. Test to 1500 psi for 30 minutes.
6. Nipple up blowout preventers and manifold with relief lines. Pressure test choke manifold lines and valves to 1500 psi for 30 minutes. Pressure test blind rams to 1500 psi for 30 minutes.
7. Trip in hole with 8 3/4" bit, drill collars and drill pipe. Pressure test pipe rams and annular preventer to 1500 psi for 30 minutes. Record all tests on IADC Daily Drilling Report Sheet.
8. Drill an 8 3/4" hole 300' into the Mancos Shale, approximately 5750'. Log as wellsite Geological Engineer requests.
9. Run 7", 23#, K-55, ST&C casing to 5750'.
10. Cement in two stages with 50/50 pozmix and a tail of 150 sx of Class B with 2% $CaCl_2$ on first stage; 50/50 pozmix second stage. Place DV tool at top of Mesaverde-Cliffhouse. Use cement baskets through Mesaverde formation. Circulate second stage cement to surface.
11. Wait on cement a minimum of 18 hours. Pressure test to 1000 psi for 30 minutes. Nipple up to gas drill.
12. Pick up 6 1/4" bit, 4 3/4" drill collars and 3 1/2" drill pipe. Drill cement, guide shoe, and 5' of open hole with water.
13. Displace water with nitrogen. Displace nitrogen with gas. Blow hole dry.
14. Drill 6 1/4" hole to T.D. (7600'). Log as wellsite Geological Engineer requests. If non-productive, P & A per appropriate government Regulatory Agency specifications
15. Run 4 1/2", 10.5# & 11.6#, K-55, ST&C casing liner to 7600' w/150' of overlap into intermediate casing.
16. Cement w/Class B cement in sufficient volume to circulate cement to liner top.
17. Reverse out excess cement. Lay down drill pipe. Install well head.
18. Move out rotary tools.

CASING PROGRAM

0-250'	9 5/8", 36#, K-55, ST&C
0-5750'	7", 23#, K-55, ST&C
5600-7600'	4 1/2", 10.5#, K-55, ST&C
7000-7600'	4 1/2", 11.6#, K-55, ST&C

MUD PROGRAM

0-250':	Native solids. Use sufficient viscosity to clean hole and run casing.
359-5750':	Low solids, 15 cc WL. Use sufficient viscosity to clean hole. For logging: 30-45 viscosity.
5750-T.D.:	Gas.

EVALUATION

Cores and DST's:

None.

Deviation Surveys:

1. Survey surface hole at 100' intervals. Maximum allowable deviation, 1^{o}.
2. From surface to total depth, deviation surveys must be taken every 500' or each trip, whichever is first. Maximum allowable change in deviation is 1^{o} per 100'. Maximum deviation, 5^{o}.

   Record each survey on the IADC Daily Drilling Report Sheet.

Samples:

As directed by wellsite Geological Engineer.

Logs:

GR/SP/SN/Induction from T.D. to surface casing.

GR/FDC/CNL/Caliper from T.D. to base of Mesaverde.

This suite of logs will be used twice; at intermediate casing point, and at T.D.

BLOWOUT EQUIPMENT

900-series double ram hydraulic and spherical hydraulic unit with 3000 psi working pressure.

900-series rotating head.

Kill and choke lines and choke manifold as per Tenneco Oil and appropriate Government Regulatory Agency requirements or better.

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 (office) 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 is 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
ROCKY MOUNTAIN DIVISION
PENTHOUSE, 720 SOUTH COLORADO BOULEVARD
DENVER, COLORADO 80222

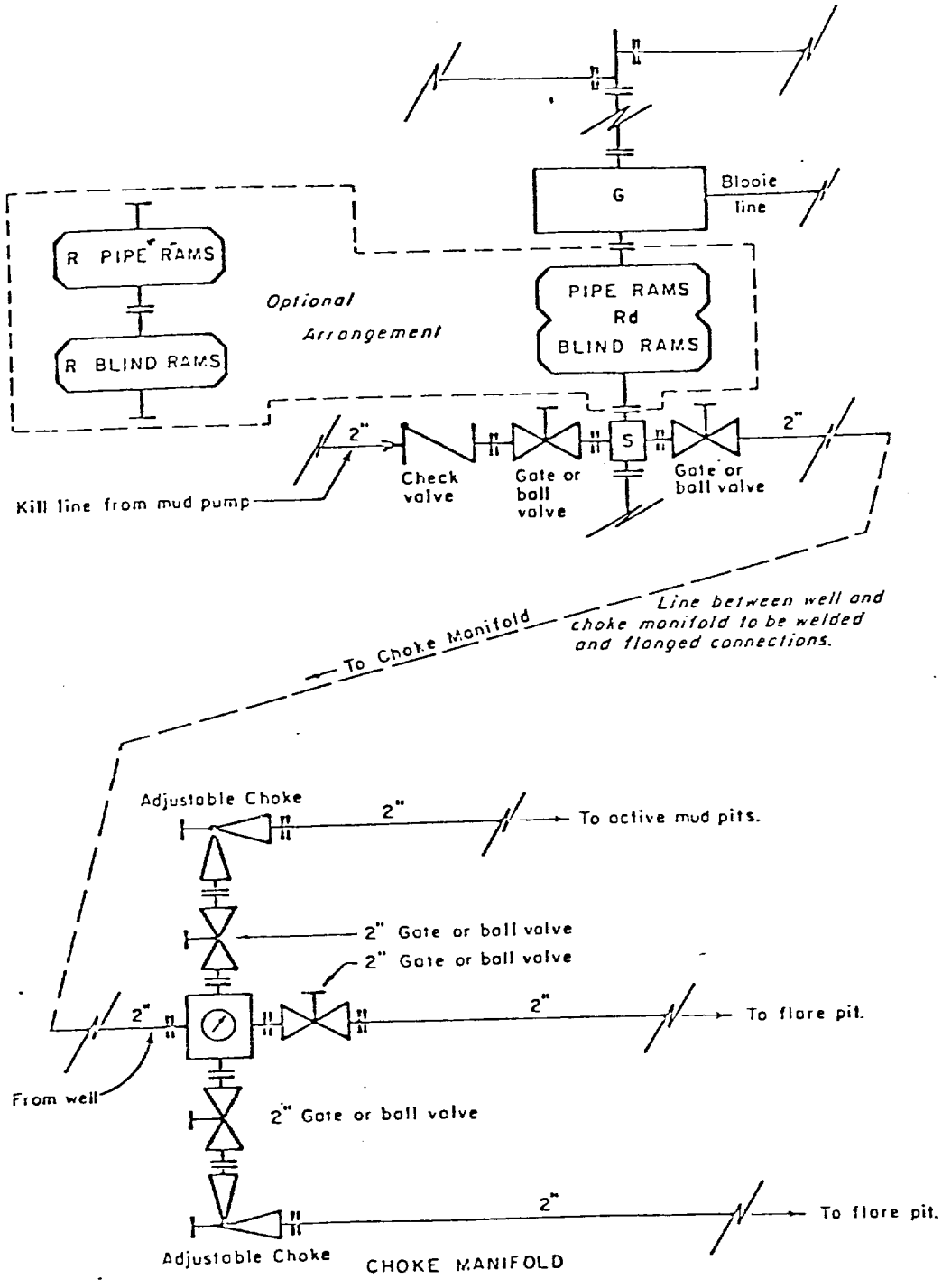
ATTENTION: Drilling Department

In case of 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 AN
CHOKE MANIFOLD

J. MAGILL 10-26-79 EVI

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 lease 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 on the Jicarilla Indian Reservation with the minerals and surface belonging to the same. The topography at the site is level with the sandy soil. The principal vegetation present is sagebrush.

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 mad 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 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

LF/gh

41 - 7-61

TENNECO OIL COMPANY

CALCULATION SHEET

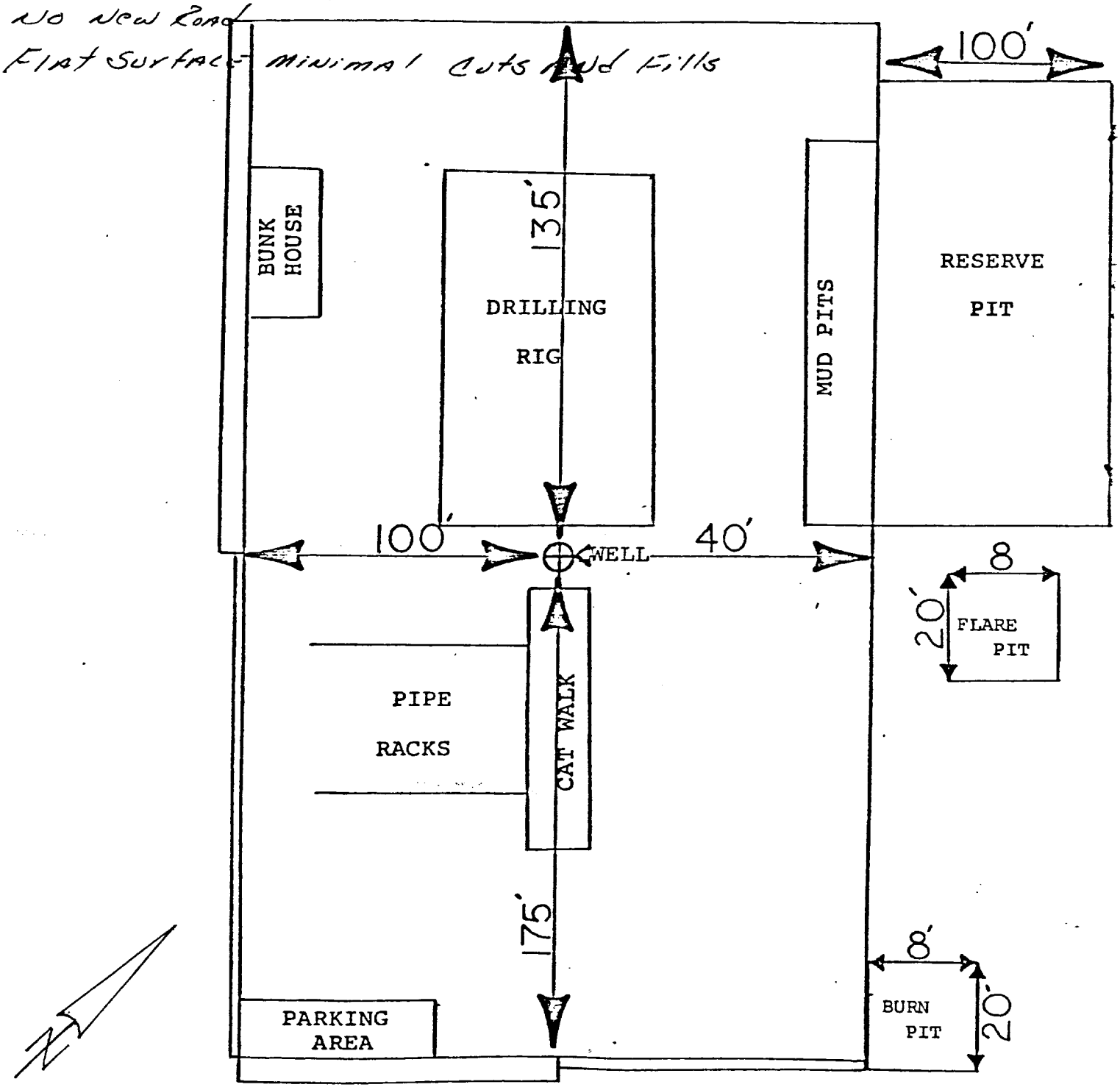
ANY

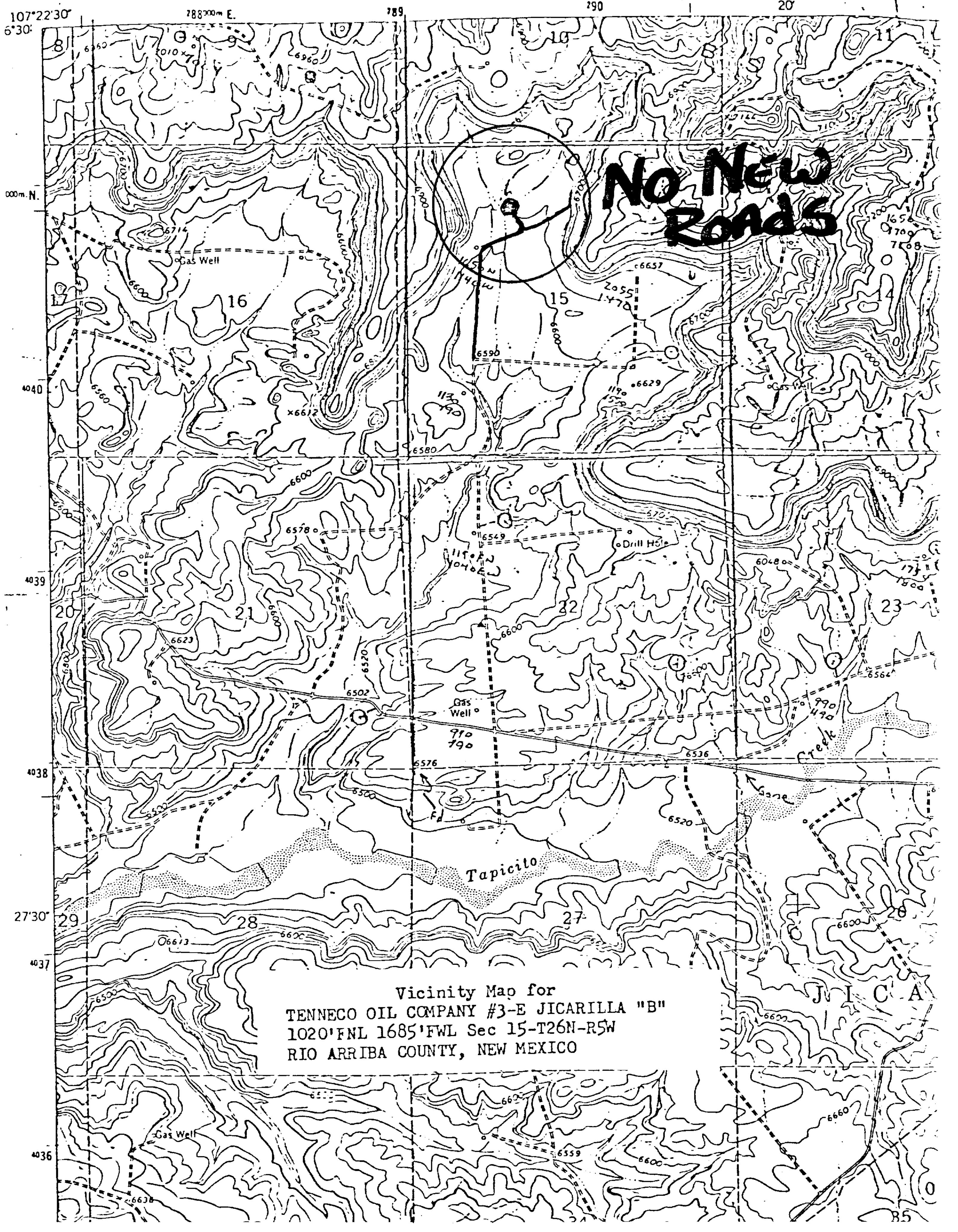
EXHIBIT

CT DRILLING WELL SITE LAYOUT JICARILLA "B" 3E

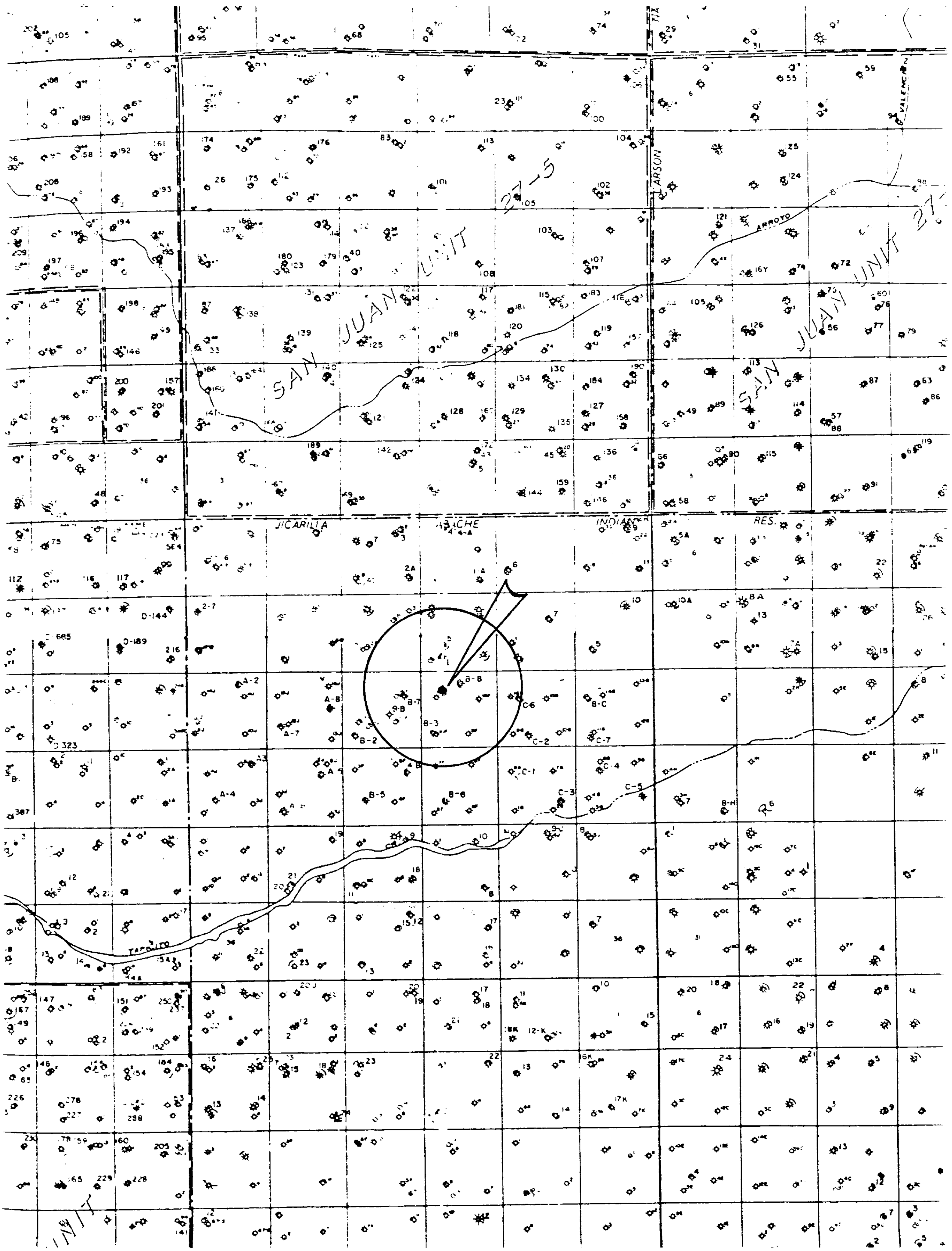
TION 1685 FNL 1020 FWL SEC 15, T26N, R5W DATE 10/27/79

1. Stock pile Top soil, Place trees and brush in pit and cover, fence all pits.
2. Construct a Dike around North side of location to prevent drainage into pit area.
3. No new Road
4. Flat Surface - Minimal cuts and fills





Vicinity Map for
TENNECO OIL COMPANY #3-E JICARILLA "B"
1020'FNL 1685'FWL Sec 15-T26N-R5W
RIO ARRIBA COUNTY, NEW MEXICO



SAN JUAN UNIT 27-5
SAN JUAN UNIT 27
JICARILLA APACHE INDIAN RES.
ARROYO
LARSON