SUBMIT IN TRIPLICATE*

Form approved. Budget Bureau No. 42-R1425.

(Other instructions on reverse side)

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30.	1 1 to	٠ /	- 7 -	101	/
5. LEASI	E DESIG	NATION	AND S	ERIAL	NO.

UNITE	: 12 :	51 A 11	-5
DEPARTMENT	OF	THE	INTERIOR

	GEOLG	GICAL SURVE	- Y				SF-078499		
APPLICATION	N FOR PERMIT	TO DRILL, D	DEEP	N, OR PL	UG B	ACK	6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
1a. TYPE OF WORK		DEEPEN [7	DI 11	G BAC	<u> </u>	7. UNIT AGREEMENT NAME		
b. Type of Well	LL 🛽	DEEPEN		PLU	G BAC	^ 🗀			
OIL GA	S OTHER			NGLE	MULTIPE ZONE	E	8. FARM OR LEASE NAME		
2. NAME OF OPERATOR							Tapp		
Tenneco Oil Cor	mpany						9. WELL NO.		
3. ADDRESS OF OPERATOR	<u> </u>						3		
720 S. Colorado	o Blvd., Denver	, Colorado	80	222			10. FIELD AND POOL, OR WILDCAT		
At surface		l in accordance wit	h any S	tate requiremen	ts.*)		Basin Dakota		
• 1850' FNL, 16	640' FEL					•	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA		
At proposed prod. zone	e					-	Sec. 22, T28N, R8W		
14. DISTANCE IN MILES A	AND DIRECTION FROM NEA	REST TOWN OR POST	r OFFIC	E.*			12. COUNTY OR PARISH 13. STATE		
See Point 1B, S	Surface Use Pla	ın					San Juan New Mexico		
15. DISTANCE FROM PROPU			16. NO	O. OF ACRES IN L	EASE		F ACRES ASSIGNED		
LOCATION TO NEAREST PROPERTY OR LEASE L. (Also to nearest drlg	INE, FT.					10 11	320		
18. DISTANCE FROM PROPO	OSED LOCATION*		19. PE	OPOSED DEPTH		20. ROTAL	RY OR CABLE TOOLS		
TO NEAREST WELL, DE OR APPLIED FOR, ON THE				6940		RO.	tarv		
21. ELEVATIONS (Show whe	ether DF, RT, GR, etc.)						22. APPROX. DATE WORK WILL START*		
		5872 G.	L.				November 15, 1979		
23.		PROPOSED CASIN	G ANI	CEMENTING	PROGRA	M			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FO	от	SETTING DE	РТН	·	QUANTITY OF CEMENT		
13 3/4"	9 5/8"	36#	250' Suff		Suffi	icient to circulate to surf			
7 7/8"	4 1/2"	10.5# - 11	.6#	6940 '		Suffi	cient to circulate to surf		
	goe wit et			ilug back, give d	Legan U	S. GEOI	OF 1979 LOCICAL SURVEY SEP 2 0 1979 Justice and proposed field by by ductive		
zone. If proposal is to opreventer program, if any 24.	drill or deepen direction y.					 -	uctive zone and mightsed fish blodugitive i and true vertical depths. Give blowout		
SIGNED	10 Jan	TIT	Div	ision Prod	uctio	n Mana	ger		
(This space for Feder	ral or State office use)								
PERMIT NO.				APPROVAL DATE					
APPROVED BY		micro	LE				DATE		
CONDITIONS OF APPROV.									
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MMOCC

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

	All distanc	es must be from th	e cuter bound	laries of the Section	m.	
Operator			Lease			Well No.
TENNECO OIL COM		TAPP County				
Unit Letter Sectio	•	N	8W	1 -	Tuan	
G 22 Actual Footage Location of	Well: 28	13	OW	Sau	Juan	
3040	rom the North	line and	1640	feet from the	East	line
Ground Level Elev. 5872	Producing Formation Dakota	Poo	Basin I	akota		Dedicated Acreage: 320 Acres
•						plat below.
dated by commun	nitization, unitization	vnership is ded, force-pooling. yes,' type of co	etc?		e interests of	all owners been consoli-
this form if nece No allowable wi	ssary.) l be assigned to the v	vell until all in	terests hav	e been consolid	ated (by comm	ed. (Use reverse side of nunitization, unitization, approved by the Commis-
كتبخب والفنديين والمناوين	<u> </u>	((111)111111111111111111111111111111111	<u> </u>			CERTIFICATION
	CONC TENNECO	OIL CO.			tained here	ertify that the information continuity is true and complete to the knowledge and belief.
	Sr = 0 . . .	78499		<u>.64</u> 01	Company Tenneco	o Oil Company 31, 1979
: 		 	aanjuu	mmmmm		
	 	22		and the second second	shown on to notes of a under my s is true ar	certify that the well location this plat was plotted from field actual surveys made by me or supervision, and that the same and correct to the best of my and belief.
	+ — — — — — — — — — — — — — — — — — — —			7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Date Surveye July Registered F and/or Land	19: 1979

2000 1500 1000

500

90 1320 1650 1980 2310 2640

3950

1. The geological name of the surface formation is Tertiary San Jose

2&3. Estimated Formation Tops:

Ojo	1180'	Mancos	4711'
Pictured Cliffs	2249 '	Gallup	5641'
Cliffhouse	3984 '	Greenhorn	6561 '
Menefee	4081'	Dakota A	6724'
Point Lookout	4566'	Total Depth	6940 '

- 4. Drill a 13 3/4" hole to 300⁺. Run 9 5/8", 36#, K-55 ST&C casing to 300⁺ and circulate cement to surface using 2% CaCl₂ in cement. Drill out shoe and reduce hole to 8 3/4". Drill 8 3/4" hole to 3500⁺. Run 7", 23#, K-55 ST&C casing to 3500⁺ and circulate cement to surface. Drill out of 7" with 6 1/4" bit using gas as circulating fluid. Drill to total depth. If productive, run 4 1/2" casing. Cement in one stage and bring cement to above Mesaverde Zone. If nonproductive, P&A per U.S.G.S. requirements.
- 5. Blowout Preventors:
 Hydraulic double ram, 10". One set of rams will be provided each size drill pipe in the hole. One set of blind rams at all times. Fill line will be 2", kill line will be 2", choke relief line will be 2". BOP's, drills, and tests will be recorded in the driller's log. BOP will be tested every 24 hours and recorded in IADC log.
- 6. Mud Program: (Sufficient quantity of mud and weight material will be available on location.)

0-300⁺ Spud mud. 300-3500⁺ Low solids fresh water mud. No WL control. 3500-T.D. Gas

7. Auxiliary Equipment:

a. Kelly cock will be in use at all times.

- b. Stabbing valve to fit drill pipe will be present on floor at all times.
- c. Mud monitoring will be visual. No abnormal pressures are anticipated.

d. Floats at bits.

- e. Drill string safety valve(s) to fit all pipe in drill string will be maintained on the rig floor while drilling operations are in progress.
- 8. Coring, Logging, and Testing Program:

No cores will be taken. Samples will be taken as directed by wellsite geological engineer. GR/FDC/CNL caliper from T.D. to base of Mesaverde. GR/SP/SN induction from T.D. to surface casing.

- 9. No abnormal pressures or temperatures are anticipated.
- 10. The drilling of this well will take approximately 10 days.
- 11. Your office (telephone) will be notified of spudding in sufficient time to witness cementing operations. Immediate notice will be given on blowouts, fires, spills, and accidents involving life threatening injuries or loss of life. Prior approval will be obtained before appreciably changing drilling program or commencing plugging operations, plug back work, casing repair work or corrective cementing operations.

TOC/USGS 9-331C(S)

1. Existing Roads

- A. Proposed Well Site Location: The proposed wellsite location was surveyed and staked by a registered land surveyor and is located 1850' FNL and 1640' FEL Sec. 22 T28N-R8W, San Juan County, New Mexico. (See Exhibit I acreage dedication plan).
- B. Planned Access Route: Planned access route begins in Blanco, New Mexico proceeds southeasterly on blacktop for approximately 10 miles following Largo Canyon. Turn north on dirt road and proceed for approximately 1/4 mile and then northeast into wellsite location on 300' of newly constructed road.
- C. Access Road Labelled:

Color Code: Red - Improved Surface Blue - New Access Road

- D. Not applicable the proposed well is a development well.
- E. The proposed well is a development well. See Exhibit ^{II} for existing roads within a one mile radius.
- F. Existing Road Maintenance or Improvement Plan:
 The existing roads will require minimal maintenance.

2. Planned Access Roads

(All roads are existing roads.)

- A. Width:
 The average width of the road is twenty feet.
- B. Maximum Grades:
 The maximum grades will be 6%.
- C. Turnouts: There are no turnouts planned as sight distance is sufficient.
- D. Drainage Design: The road is center crowned to allow drainage. The road is flat primarily.
- E. Culverts Use Major Cuts and Fills:No culverts or major cuts and fills will be required.
- F. Surfacing Material:
 Native soil has been wetted, bladed and compacted to make the road surface, which is existing.

2. Planned Access Roads (Cont'd)

- Gates, Cattleguards, Fence Cuts: G. No gates, cattleguards or fences will be needed.
- New Roads Centerlined Flagged: Existing Roads.

3. Location of Existing Wells

The proposed well is a development well. Exhibit IIIshows existing wells within a one mile radius.

- Α. Water Wells: None
- Abandoned Wells: None. . В.
- Temporarily Abandoned Wells: None С.
- Disposal Wells: None D.
- Drilling Wells: See Exhibit III Ε.
- F. Producing Wells: See Exhibit III
 Shut-In Wells: None
 Injection Wells: None
- G.
- Η.
- Monitoring or Observation Wells: None. Ι.

4. Location of Existing and/or Proposed Facilities

- Α. Existing facilities within one mile owned or controlled by Lessee/Operator:
 - Tank batteries None
 - Production facilities -Exhibit III
 - (3) Oil Gathering Lines -None
 - Gas Gathering Lines -(4) None
 - Injection Lines -(5) None
 - (6) Disposal Lines -None
- New facilities in the event of production: В.
 - New facilities will be within the dimensions of drill pad.
 Dimensions are shown on Exhibit IV.

 - Construction Materials/Methods: Construction materials will be native to the site. Facilities will consist of a well pad.
 - (4) Protection of Wildlife/Livestock:

Facilities will be fenced as needed to protect wildlife or livestock.

- 4. Location of Existing and/or Proposed Facilities (Cont'd)
 - B. New facilities in the event of production: (cont'd)
 - (5) New facilities will consists of a wellhead, tank and production unit.
 - C. Rehabilitation of Disturbed Areas:
 Following the completion of construction, those areas required for continued production will be graded to provide drainage and minimize erosion. Those areas unnecessary for use will be graded to blend with surrounding topography per BLM recommendations.

Location and Type of Water Supply

- A. Location and type of water supply:
 Water will be hauled from a private source
- B. Water Transportation System: Water trucks will be used.
- C. Water wells: N/A.

6. Source of Construction Materials

- A. Materials:
 Construction materials will consist of soil native to the site. Any topsoil, if present, will be stripped and stockpiled as needed.
- B. Land Ownership; The planned site and access road is on federal land administered by the Bureau of Land Management.
- C. Materials Foreign to the Site: N/A.
- D. Access Roads: No additional roads will be required.

7. Methods for Handling Waste Disposal

- A. Cuttings:
 Cuttings will be contained in the reserve pit.
- B. Drilling Fluids: Drilling fluids will be retained in the reserve pit.
- C. Produced Fluids:
 Produced fluids, including produced water will be collected in the reserve pit. Any small amount of hydrocarbon that may be produced during testing will be retained in the reserve pit. Prior to clean up operations, the hydrocarbon material will be skimmed.

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7. Methods for Handling Waste Disposal (Cont'd)

- D. Sewage:
 Sanitary facilities for sewage disposal will consist of at least one pit toilet, during the driller operations.
 The pit will be backfilled immediately following completion of the drilling operation.
- E. Garbage:
 There probably will not be much putriscible garbage to dispose of. However, it will be disposed of along with the refuse in a constructed burn pit, which will be fenced. The small amount of refuse will be burned and the pit will be covered with a minimum 36 inch cover upon completion.
- F. Clean-Up of Well Site:
 Upon the release of the drilling rig, the surface of the drilling pad will be prepared to accommodate a completion rig, if testing indicates potential productive zones. In either case, the "mouse hole" and "rat hole" will be covered to eliminate a potential hazard to livestock. The reserve pit will be fenced to prevent entry of livestock until the pit is backfilled. Reasonable clean up will be performed prior to final restoration of the site.

8. Ancillary Facilities

None required.

9. Well Site Layout

- A. See Exhibit IV
- B. Location of pits, etc. See Exhibit IV
- C. Rig orientation etc. See Exhibit IV
- D. Lining of pits: Pits will not be lined. They will be covered with a fine mesh netting, if necessary, for the protection of wildlife if fluids are found to be toxic.

10. Plans for Restoration of Surface

A. Reserve pit clean up:
The pit will be fenced prior to rig release and shall be maintained until clean up. Prior to backfilling any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit shall be backfilled with soil excavated from the site and with soil adjacent to the reserve pit. The restored surface of the reserve pit will be contoured as needed to minimize erosion. The reserve pit area will be seeded per BLM recommendations during the appropriate season following final restoration of the site.

10. Plans for Restoration of Surface (Cont'd)

- B. Restoration Plans Production Developed:
 The reserve pit will be backfilled and restored as described under Item A. In addition, those disturbed areas not required for production will be graded to blend with the surrounding topography, and seeded, per BLM recommendations. The portion of the drill pad required for production and turning areas will be graded to minimize erosion and provide access to production facilities under inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those under Item C. below.
- C. Restoration Plan No Production Developed:
 The reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the drilling pad will be restored. The site will be contoured to blend with the surrounding topography. The site will be seeded according to BLM recommendations. If the new access road is not required for other development plans, it will be obliterated and restored and seeded per BLM recommendations.
- D. Rehabilitation Time Table:
 Upon completion of operations the intial clean up of the well site will be performed. Final restoration of the site will be performed as soon as possible according to procedural guidelines published by the USGS and BLM. Seeding of the disturbed areas which are no longer required will be performed during the appropriate season, following final restoration.

11. Other Information

- A. Surface Description:
 Surface description of the proposed wellsite location is located approximately 1/4 mile north of Carrizo Creek in the Largo Canyon area. Terrain consists of sandy soil and juniper trees.
- B. Surface Use Activities: The surface is federally owned and managed by the BLM. The predominant surface use is mineral exploration and production.
- C. Proximity of Water, Dwellings and Historical Sites:
 - 1. Water:

There are no reservoirs or streams in the immediate area.

- 2. Occupied Dwellings:
 There are no occupied dwellings or h
- There are no occupied dwellings or buildings in the area.

 3. Sites:
- Sites: An archeological reconnissance has been performed for this location and clearance has been granted.

12. Operator's Field Representative

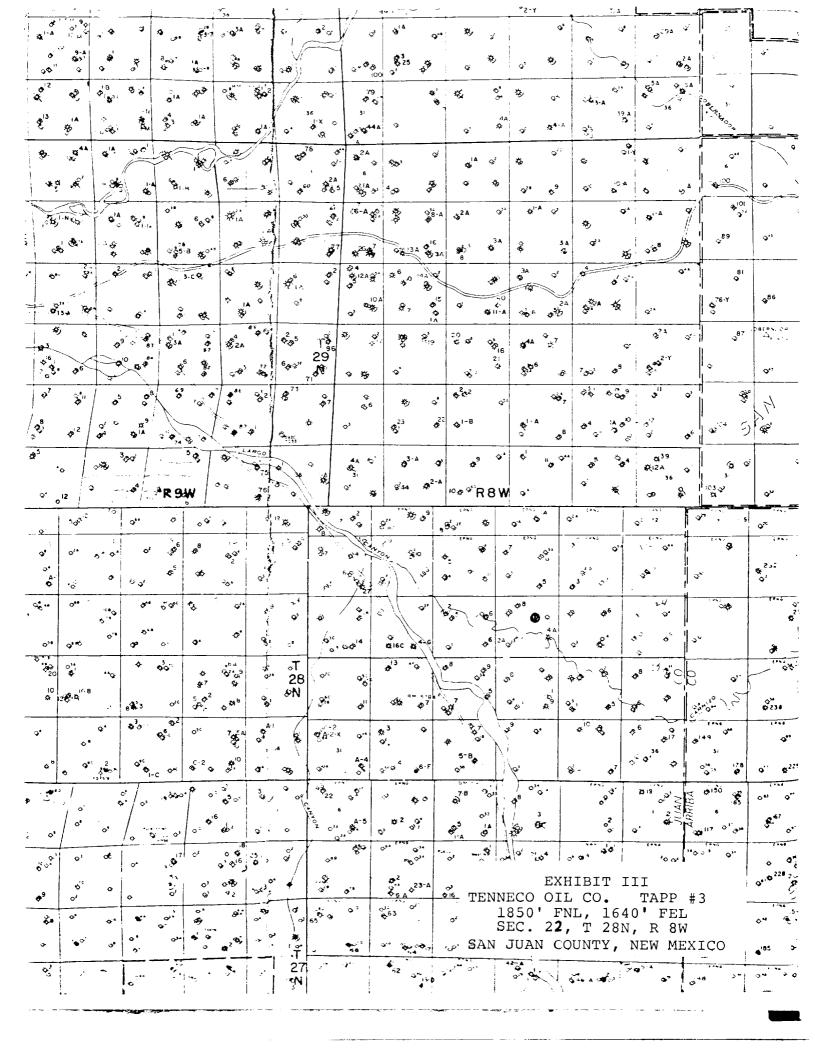
Donald S. Barnes
Division Drilling Engineer
Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
(303) 758-7130 Ext. 212

13. <u>Certification</u>

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by Tenneco Oil Company and its contractors and subcontractos will conform to this plan.

Date: 9-4-79

J. M. Lacey Division Production Manager



TENNECO OIL COMPANY

CALCULATION SHEET

