Form approved Budget Burenu Ro. 42-R1425.

A SER MATRICE AT

•		TED STATE		LGAGLHG !		30-045-22277	
	DEPARTMENT	I OF THE I GICAL SURV		IOR		5. LEANE DESIGNATION AND SERIAL NO.	
· · · · · · · · · · · · · · · · · · ·	SF-078580-A						
APPLICATION	ON FOR PERMIT	TO DRILL,	DEEPE	N, OR PLUG I	BACK	6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
la. Type of work	Du I [V]						
b. Type of well	RILL 🛚	DEEPEN		PLUG BA	CK 🗌	7. UNIT AGREEMENT NAME	
WELL	WELL OTHER	•	61NG 20N		.rr [£	
2. NAME OF OPERATOR	8. PARM OR LEASE NAME MOONE						
Tenneco Oi						9. WELL NO	
3. ADDRESS OF OPERATO	#4A ·						
1860 Linco	10. FIELD AND POOL, OR WILDCAT						
At surface 960	4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)						
	' FSL and <u>850</u>	'_'FEL, Uni	t			Blanco Mesa Verde 11. REC., T., R., M., OR BLE. AND SUBVEY OR AREA	
At proposed prod. zone						Sec. 5, T30N, R8W	
14. DISTANCE IN MILES	AND DIRECTION FROM NEAR	SECT TOWN OF BOS	T OFFICER			1	
	e of Surface Use		1 OFFICE.			12. COUNTY OR PARISH 13. STATE	
15. DISTANCE FROM PRO	PUSED*	Plan	16. No.	OF ACRES IN LEASE	1 17 80	San Juan New Mexico	
LOCATION TO NEARE PROPERTY OR LEASE (Also to perpet d	LINE, FT.			320.46	TOT	HIS WELL	
(Also to nearest drig, unit line, if any) 18. DISTANCE FROM PROPOSED LOCATION						320.46 RY OR CARLE TOOLS	
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			+		Rota		
21. ELEVATIONS (Show w	hether DF, RT, GR, etc.)				1 1000	22. APPROX. DATE WORK WILL START*	
	6251'					3-5-77	
23.	P	ROPOSED CASIN	G AND C	EMENTING PROGRA	м	-	
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FO	оот	SETTING DEPTH	1	QUANTITY OF CEMENT	
12-1/4"	9-5/8"	36#		± 200'	Suff		
8-3/4"	7"	23#		+ 3500	Suff	to circulate to surface. to cement back to surface	
6-1/8"	4-1/2"	10.5#		- 3200-5670	Suff.	to cement back to 3" csg	
Plan to dra	ill well as folld	WS:	1	,		oo dement back to 7 tsg	
 MIRUR Set ar 	, drill 12-1/4"	hole to I	200'.				
3. Drill	out with 9-5/8"	casing to	200'	& cement with	suff.	cement to circ. to surfa	
	000 111 0 37 4	DIC (0 - 3)	,,,,,			·	
5. Drill	casing and ceme	nt back to	surtac	ce casing.		•	
the 7"	casing shoe unt	yas as the il the bold	Circui	lating fluid,	do not	drill more than 10' belo	
6. Drill	the hole to T. D	log the	hole c	iried up compi	etely a	and is dusting. drillsite geologist.	
7. Run 4-	1/2" liner to T.	D. load F	noic d in elon	ith mud and co	ea by a	arillsite geologist. iner back to top of 4-1/2	
8. Inis w	ell will be comp	leted throu	igh cas	sing perforati	ons and	d stimulated as necessary	
	WELL COMMETCICIO	1 productio	n.	5 /	ons un	a semidrated as necessary	
9. Clean	up area.			·			
10. Approximately 8 days will be required to drill this well. 11. The gas has been dedicated to Southern Union Gathering Co.							
11. The ga Continued t	s nas been dedic. o Page 2 – – –	ated to Sou	thern	Union Gatheri	ng Co.	•	
IN ABOVE SPACE DESCRIBE	E PROPOSED PROGRAM: If to	oposal is to deepe	n or plug	back, give data on pre	sent produ	etive zone and proposed new productive	
preventer program, if an	y.	y, give pertinett	uata Un Si	mourtace meations and	measured	etive zone and proposed new productive and true vertical depths. Give blowout	

Div. Drilling Engineer

*See Instructions On Reverse Side

NOV 24 1976

U. S. GEGLOGICAL

(This space for Federal or State office use)

CONDITIONS OF APPROVAL, IF ANY:

PERMIT NO. _

APPROVED BY __

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

	· · · · · · · · · · · · · · · · · · ·			ries of the Section	
Operator	TENIRECO OI		Lease	OORE	Well No. 4-A
Jnit Letter P	Section 5	Township 30 NORTH	Range I 8 WEST	County	
960	Teet Hell III	Corre	ne and 850	SAN JUA	EAST line
Ground Level	i	ng Formation anco Musa Verse	Pool	esa Verde	Dedicated Avereage:
1. Qutline			ell by colored pencil or had		
2. If more					thereof (both as to working
3. If more by commun	e than one lease o nitization, unitiza	of different ownership tion, force-pooling, et	is dedicated to the well,	have the interests of	of all owners been consolidated
() Yes	() No	If answer is "yes," t	ype of consolidation	One Lease	
If answer inecessary.)	is "no," list the ov	vners and tract descri		ly consolidated. (Us	se reverse side of this form if
No allowat	ole will be assigned	to the well until all in	nterests have been consol , eliminating such interest	lidated (by commun	nitization, unitization, forced- d by the Commission.
	1000	16 COM.		i hereb	CERTIFICATION To certify that the information contained true and complete to the best of my and belief.
– –	+	 	- + - + -	Name	1120.6
			*		opduction Clerk .
			*	Company Date	tober 26. 19 The same
			* N	Company Date OC I hereby this plat u	certify that the well location shows and the plotted from field nates of ectual to by me or under my supervision, and me is true and correct to the fact of my

1463

Certificate No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

(PAGE 2) for Moore 4A

12. SURFACE FORMATION IS San Jose (EOCENE)

13. FORMATION TOPS (Estimated)

Pictured Cliffs	± 3105 possible oil or gas producer
Cliff House	± 4840 possible oil or gas producer
Menefee	± 4955 possible oil or gas producer
Point Lookout	= 5275 possible oil or gas producer
Mancos Shale	= 5500

- 14. Mud program : see point 7 of 7 point well-control plan
- 15. No coring or drill stem tests will be taken
- 16. Logs to be taken= Density
 Gamma Ray
 Calipher and temperature logs
 Deviation surveys will also be taken

7 POINT WELL CONTROL PLAN

- Surface casing: 9 5/8", 24#, approximately 200, grade K-55, new condition.
- 2. Casinghead will be 10", 900 Series, 3,000 psi rating.
- 3. Intermediate casing 7", 20#, K-55, will be set at \pm 3500° and cemented to surface casing.
- 4. Blowout preventors: Hydraulic, double ram, 10". One set of rams will be provided for 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" with variable choke.
- 5. Auxiliary equipment:
 - (1) Kelly cock will be in use at all times.

(2) Stabbing valve to fit drill pipe will be present on floor at all times.

- (3) Mud monitoring will be visual, no abnormal pressures are anticipated in this area.
- (4) Rotating head will be used when drilling with gas.
- 6. Anticipated bottom-hole pressure:

This is an area of known pressure. Maximum anticipated pressure at TD is 1200 psi. No abnormal pressure is anticipated.

- 7. Drilling Fluids:
 - 0 200 Spud mud
 - 200-3500' Gel water low solids as needed to maintain good conditions.

3500' - T.D. Compressed gas

BLM SEEDING REQUIREMENTS IN THE FARMINGTON RESOURCE AREA

- 1. SEED MIXTURE 1
- 2. TIME:

All seeding will take place between July 1 and September 15.

3. EQUIPMENT:

Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted not less than one-half inch deep or more than one inch deep. The seeder will be followed with a drag, packer, or roller to insure uniform coverage of the seed, and adequate compaction. Drilling will be done on the contour where possible, not up and down the slope. Where slopes are too steep for contour drilling, a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will then be covered to the depth described above by whatever means is practical.

4. SPECIES TO BE PLANTED IN POUNDS PURE-LIVE-SEED PER ACRE:

CRESTED WHEATGRASS (Agropyron desertorum) - 21/2 1bs.

SMOOTH BROME (Bromus inermis) - 2½ lbs.

FOURWING SALTBUSH (dewinged) (Atriplex conescens) - 1/2 1b.

NOMAD ALFALFA (Medicago sitiva) - 1 lb.

BLM COLOR REQUIREMENTS IN THE FARMINGTON RESOURCE AREA

1. All equipment shall be painted green to match the surrounding area.

SURFACE USE PLAN

TENNECO OIL COMPANY'S
Moore #4A, SE 1/4 of Sec. 5, T30N, R8W
Lease #SF 078580-A, San Juan County, New Mexico

This plan is to accompany "Application for Permit to Drill" for the above mentioned well.

The following is a discussion of pertinent information concerning possible effect which the proposed drilling of the well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so that all contractors and subcontractors will be aware of all items of this plan.

- 1. AREAL ROAD MAP Exhibit "A" is a portion of a USGS topographic map, San Juan County, New Mexico, showing existing black top roads. Take Pump Canyon road around onto the top of Manzanarres Mesa, turn left after the raised cattleguard, and then take the first right to location.
- 2. LOCATION OF EXISTING WELLS Several MV, Dak., and P.C. have been drilled in a two mile radius and are shown on Exhibit "B".
- PROPOSED WELL MAT AND IMMEDIATE AREA Refer to Exhibit "C" for direction orientation and road access.
 - a. Mat size 130' x 300'
 - Surface Will be native soil, bladed, watered and capped with clay only when necessary.
 - c. Reserve pit 150' x 150' unlined pit, joining mat to the North
 - d. Cut & Fill 1'-2' cut
 - e. Drill Site Layout Exhibit "C" shows position of mat, reserve pits, burn pits, trash pits, and mud pits in relation to the well bore. Rig will be erected with the V-Door to the East.
 - f. Setting & Environment -
 - (1) Terrain Low rolling hills See Exhibit "A", topographic map of area.
 - (2) Soil Extremely sandy soil
 - (3) Vegetation Sparse grass, juniper and sagebrush. Location has been chained.
 - (4) Surface Use Unknown, possibly used for grazing.

(5) Other - Drill site, which is on top Manzanarres Mesa, is in a low environmental risk area. The effect of drilling this well and other wells in the area would be minimal.

g. Distances to:

- (1) Ponds and Streams There are no surface waters within 1/2 mile.
- (2) Water Wells No water well or windmill could be seen within 1/2 mile.
- (3) Residences and Buildings There are no houses or buildings within 1/2 mile.
- (4) Arroyos, Canyons, etc. See Exhibit "A".
- h. Well Sign Sign identifying and locating well will be maintained at drill site with the spudding of the well.
- i. Open Pits All pits containing mud or other liquids will be fenced.

ROADS

- a. Existing roads All existing roads within one mile of the location tare shown on Exhibit "A" and Exhibit "D".
- b. Planned roads Plan to construct 1320 ' of new 14 foot wide road. Waterbars will be constructed where necessary.
- c. Fences, Gates and Cattleguards None
- 5. TANK BATTERY This is expected to be a dry gas well, therefore, a tank battery will not be required.

6. LEASE PIPELINES

- a. Existing Not furnished by the Operator, to be connected by Southern Union Gathering Co.
- b. Planned If production is encountered, all lease lines are to be constructed on a well mat.
- 7. WASTE DISPOSAL Well cuttings will be disposed in reserve pit. Barrel trash containers to be in accessible locations within drill site area during drilling and completion procedures. All detrimental waste will be hauled away, burned or buried with a minimum cover of 24" dirt. See Exhibit "C" for location of pits. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. No produced water is anticipated.

- 8. WATER SUPPLY Supply water will be hauled from the San Juan River or nearest wash.
- 9. ARCHAEOLOGICAL RESOURCES Report has been furnished by Pat Zarnowski from Salamon Ruins, Bloomfield, New Mexico.
- 10. RESTORATION OF SURFACE If well is productive, pits will be backfilled and leveled as soon as practical to original condition.
- 11. OPERATOR'S REPRESENTATIVE Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows:

Production & Drilling

Darrell Brown 1860 Lincoln St., Suite 1200 Denver, Colorado 80203

Office Phone: (303) 292-9920 Ext. 254 Home Phone: (303) 771-8297

12. CERTIFICATION

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 sub-contractors will conform to this plan.

11-4-76

D. E. Brown

Div. Drilling Engineer







