APPLICATION FOR PERMIT

[illegible] Petroleum Co.
[illegible] Federal Well No. 1
Location [illegible]
[illegible] County, New Mexico

In conjunction with Form 9-331C, Application for Permit to Drill subject well, [illegible] Petroleum Co. submits the following items of pertinent information in accordance with USGS requirements:

1. The geologic surface formation is [illegible].

2. The estimated tops of geologic markers are as follows:

Formation	Depth	Elevation
Queen	[illegible]	+ [illegible]
San Andres	[illegible]	+ [illegible]
Glorieta	[illegible]	+ [illegible]
Tubb	[illegible]	- [illegible]
Abo	[illegible]	- [illegible]
Wolfcamp	[illegible]	- [illegible]
Penn	[illegible]	- [illegible]
Strawn	[illegible]	- [illegible]
Atoka	[illegible]	- [illegible]
Morrow	[illegible]	- [illegible]
Miss. Chester Sh.	[illegible]	- [illegible]
Miss. Chester Ls.	[illegible]	- [illegible]
TD	[illegible]	- [illegible]

3. The estimated depths at which anticipated water, oil, gas or other mineral formations are expected to be encountered:

Water: at approximately 2035', 2235', and [illegible]'
Gas and water: at approximately 7290' to 8030'
Gas: at approximately [illegible]' to 8410' and approximately [illegible]'

4. Casing and Blowout Preventer Program:

Surface: Drill a 17½" hole to approximately [illegible]'. Run deviation survey at 100', 200', and 350'. Limit deviation to 1°. Run 13-3/8" casing with guide shoe and insert float (one joint up) to total depth. Thread lock and tack weld bottom two joints. Run centralizer in the middle of joints 1, 3, and 5. Cement with [illegible] sacks Class "C" plus 2% CaCl and set pipe on bottom. Cement must circulate. Pump down backside through 1" pipe if necessary. WOC 4 hours and commence cut off and nipple up. Install 13-3/8" slip-on x 12" API 3000 psi bradenhead. Nipple up 12" API 3000 psi WP double BOP with pipe rams (bottom) and blind rams. Also nipple up 10" API 3000 psi WP Hydril. Install [illegible] line off of double B.P. WOC until it has reached a compressive strength of 500 psi. Test casing to [illegible] psi for 30 minutes.

Intermediate: Drill an 11" hole to approximately 1600' (into top of San Andres). Run deviation surveys every 500'. Limit deviation to 1°. Run 8-5/8" casing with guide shoe and insert float (2 joints up) to total depth. Thread lock and tack weld all connections through the top of insert float. Run centralizer in the middle of joints 1,

APPLICATION FOR DRILLING

Mesa Petroleum Co.
Wells Federal Well No. 1
Section 11-T16S-R27E
Eddy County, New Mexico

In conjunction with Form 9-331C, Application for Permit to Drill subject well, Mesa Petroleum Co. submits the following items of pertinent information in accordance with USGS requirements:

1. The geologic surface formation is Permian-Guadalupian Artesia Group.

2. The estimated tops of geologic markers are as follows:

Formation	Depth	Sub-Sea
Queen	820'	+2769'
San Andres	1520'	+2069'
Glorieta	2920'	+ 669'
Tubb	4280'	- 691'
Abo	5020'	-1431'
Wolfcamp	6230'	-2641'
Bursum	7010'	-3421'
Strawn	8030'	-4441'
Atoka	8430'	-4841'
Morrow	8550'	-4961'
Miss. Chester Sh.	8630'	-5041'
Miss. Chester Ls.	8770'	-5181'
TD	8800'	-5211'

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

   Water: at approximately 2835', 3335', and 4345'
   Gas and water: at approximately 7290' to 8030'
   Gas: at approximately 8310' to 8410' and approximately 8500'

4. Casing and Blowout Preventer Program:

Surface: Drill a 17½" hole to approximately 350'. Run deviation survey at 100', 200', and 350'. Limit deviation to 1°. Run 13-3/8" casing with guide shoe and insert float (one joint up) to total depth. Thread lock and tack weld bottom two joints. Run centralizer in the middle of joints 1, 3, and 5. Cement with 400 sacks Class "C" plus 2% CaCl and set pipe on bottom. Cement must circulate. Pump down backside through 1" pipe if necessary. WOC 4 hours and commence cut off and nipple up. Install 13-3/8" slip-on x 12" API 3000 psi bradenhead. Nipple up 12" API 3000 psi WP double BOP with pipe rams (bottom) and blind rams. Also nipple up 10" API 3000 psi WP Hydril. Install diverter line off of double BOP. WOC till it has reached a compressive strength of 500 psi. Test casing to 600 psi for 30 minutes.

Intermediate: Drill an 11" hole to approximately 1600' (into top of San Andres). Run deviation surveys every 300'. Limit deviation to 1°. Run 8-5/8" casing with guide shoe and insert float (2 joints up) to total depth. Thread lock and tack weld all connections through the top of insert float. Run centralizer in the middle of joints 1,