APPLICATION FOR DRILLING

MANZANO OIL CORPORATION Wynelle Federal , Well No. 1 2310' FSL & 660' FEL, Sec. 15-T19S-R33E Lea County, New Mexico Lease No.: NM-54882 (Exploratory Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Manzano Oil Corporation submits the following items of pertinent information in accordance with BLM requirements:

- 1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
- 2. The estimated tops of geologic markers are as follows:

Rustler	1360'	1st Bone Spring	8800'
Top of Salt	1588'	2nd Bone Spring	9500'
Yates 📑	3250'	Wolfcamp	10,750'
Seven Rivers	3500'	Strawn	12,050'
San Andres	5050'	Atoka	12,400'
Delaware	5600'	Morrow	12,800'
Bone Spring	7750'	T.D	13,700'

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

Water: Random fresh water sands from surface to 300'+/-.

Gas: Atoka possible between 12,400'-12,700'. Morrow between 13,000'-13,600'.

Oil: Possible in the Seven Rivers, 1st Bone Springs and Wolfcamp.

- 4. Proposed Casing Program: See Form 3160-3.
- 5. Pressure Control Equipment: See Form 3160-3 and Exhibit "E".
- 6. Mud Program: See Form 3160-3.
- 7. Auxiliary Equipment: Blowout preventer, gas detector, kelly cock, pit level monitor, flow sensors and stabbing valve.
- 8. Testing, Logging and Coring Program:

Drill Stem Tests: One possible in the Queen. Logging: Gamma Ray Surf. Csg. to T.D. DLML, SD DSNL, MSD Below 8 5/8" to T.D. Coring: None planned.

- 9. Abnormal pressures or temperatures are possible in the Atoka between 12,400'-12,700'. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight.
- 10. Anticipated starting date: November 15, 1988. Anticipated completion of drilling operations: Six weeks.