## APPLICATION FOR DRILLING

## MANZANO OIL CORPORATION Texaco Federal Com., Well No. 2 1980' FNL & 2310' FEL, Sec. 14-T19S-R33E Lea County, New Mexico Lease No.: NM-56749 (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.
- The estimated tops of geologic markers are as follows:

Rustler	1460'	1st Bone Spring	9120'
Base/Salt	3081'	2nd Bone Spring	9620'
Yates	3285'	Wolfcamp	10,850
Seven Rivers	35761	Strawn	12,146'
San Andres	5036'	Atoka	12,500'
Delaware	5912'	Morrow	12,792'
Bone Spring	78591	T.D.	13,700'

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

Water: Surface water between 100' - 350'.

Oil: Possible in the Seven Rivers, 1st Bone Spring, Wolfcamp, Atoka and Morrow.

Gas: Atoka possible between 12,500'-12,700'.

Morrow between 13,000'-13,600'.

- 4. Proposed Casing Program: See Form 3160-3.
- 5. Proposed 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: None.

Logging: Gamma Ray:

DLML, SD DSNL, MSD

Surf. Csg. to T.D. Below 8 5/8" to T.D.

Coring: None planned.

- 9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight.
- Anticipated starting date: July 15, 1990.
   Anticipated completion of drilling operations: Approximately 6 weeks.

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