APPLICATION FOR DRILLING

W.A. Moncrief, Jr. Lechuguilla Canyon Unit No. 5 Eddy County, New Mexico

In conjuction with Form 9-331C, Application for Permit to Drill subject well in Section 15, Township 24 South, Range 24 East, Eddy County, New Mexico, W.A. Moncrief, Jr. submits the following ten items of pertinent information in accordance with U.S.G.S. requirements:

- 1. The geologic surface formation is Permian-Seven Rivers formation.
- 2. The estimated tops of geologic markers are as follows:

Delaware	2596'
Bone Springs Sand	3354'
2nd Bone Springs Sand	5500'
3rd Bone Springs Sand	6949'
Wolfcamp	7550'
Strawn	8830'
Atoka	9040'
Morrow	9446'
Morrow Sand	9630'
Barnett	10,130'

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

Water: 250' to 300'; Base 500' Oil or Gas: Strawn 8830' to 9040' Atoka 9040' to 9446' Morrow 9446' to 10,700'

- 4. Proposed Casing Progam: See Form 9-331C.
- 5. Pressure Control Equipment: See Exhibit D
- 6. Mud Program: See Form 9-331C.
- 7. Auxiliary Equipment: Blowout Preventer, Inside Blowout Preventer, Kelley Cock.

8. Testing, logging and coring programs:

Two drill stem tests: One in Upper Morrow Sands at 10,000'-10,200' One in Lower Morrow Sands at 10,300'-10,500' Logging: Compensated neutron formation density logs. Dual lateral logs. Micro-SFL Coring: No cores anticipated.

- 9. No abnormal pressures or temperatures are expected.
- 10. Anticipated starting date: As soon as possible. (June 2, 1977)