

# APPLICATION FOR DRILLING

READ & STEVENS, INC.  
Rose Federal, Well No. 4  
1315' FNL & 1315' FEL, Sec. 13-T158-R27E  
Chaves County, New Mexico  
Lease No.: NM-2365  
(Development Well)

In conjunction with Form 9-331C, Application for Permit to Drill subject well, Read & Stevens, Inc. submits the following items of pertinent information in accordance with LMS requirements:

1. The geologic surface formation is Permian with quaternary alluvium and other surficial deposits.

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

Queen	1000'	Cisco	7125'
San Andres	1710'	Canyon	7470'
Glorieta	2738'	Strawn	8020'
Tubb	4430'	Lower Cherokee	8112'
Abo	5218'	Atoka	8370'
Lower Leonard	5637'	Miss. Lime	8760'
Hueco	6346'	TD	8815'

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

Water: Approximately 200 - 400 feet for surface water.

Gas: Atoka: Between 8600' - 8700', approximately.

Oil: San Andres at approximately 1720'.

4. Proposed Casing Program: See Form 9-331C.
5. Pressure Control Equipment: See Form 9-331C and Exhibit "E".
6. Mud Program: See Form 9-331C.
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 each of the following:

Strawn:	8020' - 8120'
Atoka:	8300' - 8600'

Logging: Gamma Ray:	Surface to T.D.
FDC/CNL:	Int. Csg. to T.D.
Dual Ind. Laterolog:	Int. Csg. to T.D.

Coring: None anticipated.

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.
10. Anticipated starting date: June 1, 1982  
Anticipated completion of drilling operations: Approx. 35 days.