

## APPLICATION FOR DRILLING

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READ & STEVENS, INC.  
North Haystack Federal Well No. 1  
1980' FNL & 2030' FWL, Sec. 26, T5S, R27E  
Chaves County, New Mexico  
Lease No.: NM 18821  
(Exploratory Well)

O. C. D.  
ARTESIA, OFFICE

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 USGS requirements:

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

San Andres	1200'	Cisco	5700'
Glorietta	2900'	Mississippi	6400'
Tubb	3800'	Montoya	6500'
Abo	4500'	Granite	6600'
Wolfcamp	5250'	Total depth	6700'
3. The estimated depth at which anticipated water, oil, or gas formations are expected to be encountered:

Water: Surface water between 100 to 300 feet.

Oil: San Andres approximately 1200'.  
Montoya approximately 6500'.

Gas: Abo approximately 4500'.  
Cisco approximately 5700'.
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:

Cisco	5700' - 5800'
Montoya	6500' - 6550'

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

Coring: None.
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: September 15, 1980.  
Anticipated completion of drilling operations: Approx. 30 days.