

APPLICATION FOR PERMIT TO DRILL
SENDERO PETROLEUM, INC.
TOLES FEDERAL #1
790' FNL and 2310' FEL
Section 13, T16S, R30E; NMPM

In conjunction with Form 3160-3, Application for Permit to Drill, Sendero Petroleum, Inc. submit the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 and 2, and with all other applicable federal and state regulations.

1. The geologic surface formation is of Permian Age.
2.

Salt	490'
Yates	1480'
Queen	2400'
Penrose	2650'
San Andres	3110'
Lovington	3200'
3. The estimated depths at which water, oil, or gas formations are expected to be encountered:

Water:	400'
Oil or Gas:	Penrose: 2650'
	Lovington: 3200'

*Groundwater to be protected by 8-5/8" surface casing with cement circulated to the surface.
**Potentially productive horizons to be protected by 5-1/2" production casing with cement tied back to surface casing.
4. Proposed Casing Program: See Form 3160-3 and Exhibit F.
5. Pressure Control Equipment: See Exhibit E.
6. Mud Program: See Exhibit G.
7. Logging Program: 2-Man Mudlogging unit from 2500' to T.D.

Electric Logs:	Dual Laterolog
	Compensated Neutron Litho Density Log

No coring is anticipated.
8. Abnormal Pressures, Temperatures, or Other Hazards: None
9. Anticipated Starting Date: October 31, 1990