

SOUTHLAND ROYALTY COMPANY

Querecho No. 1

1980' FSL & 1980' FWL, Sec. 28, T-18-S, R-33-E NMPM
Lea County, New Mexico

To supplement USGS Form 9-331C "Application to Drill" the following additional information is submitted concerning questions on page 5 of NTL-6:

1. See Form 9-331C.
2. See Form 9-331C.
3. The geologic name of surface formation is: Guadalupian
4. See Form 9-331C.
5. See Form 9-331C.
6. The estimated tops of important geological markers are:

T/salt	1546'	San Andres	5158'
B/salt	2806'	Delaware Sd	5216'
Yates	2976'	1st Bone Springs	7336'
7 Rivers	3500'	3rd Bone Springs	10,148'
Queen	4206'	Wolfcamp	10,806'
Grayburg	4506'	Strawn	11,936'
		Atoka	12,454'
		Morrow	12,726'

7. The estimated depths at which anticipated water, oil gas and mineral bearing strata are as follows:

Queen	4206' (Oil)
Bone Springs	7336' (Oil)
Wolfcamp	10,806' (Oil)
Morrow	12,726' (Gas)

8. See Form 9-331C. All casing will be new.
9. See Form 9-331C for depths of strings. Cement volumes and additives as follows:
 - a. 13 3/8" casing: cement with 400 sx. Class "C" cement with 2% calcium chloride. Circulate cement back to surface.
 - b. 8 5/8" casing: Cement in two stages DV tool set @ 3000', 1st stage 500 sx. Lite w/1/4# Flocele, 15# salt, 3# Gilsonite followed by 300 sx. Class "C" w/6# salt; 2nd stage 750 sx. Lite w/1/4# Flocele, 15# salt, 3# Gilsonite followed by 300 sx. Class "C" with 6# salt. It is estimated that the volume of cement used will circulate cement back to surface of ground.
 - c. 5 1/2" casing: Cement with 565 sx Lite w/.6% Haiad 22, 3# KCL & .4% CFR-2 followed w/250 sxs Class "H" w/.6% Haiad 22, 3# KCL & .4% CFR-2. Will run caliper in conjunction with open hole logs prior to setting 5 1/2" casing to determine exact volumes necessary. Top cement estimated to be at 8500'. Cement volumes could vary depending on development of intermediate horizons.