## SOUTHLAND ROYALTY COMPANY

Holly Federal "5" No. 1 760' FSL & 1980' FEL Section 5, T-18-S, R-30-E Eddy County, New Mexico NM 046256

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 geological name of surface formation is: Ochoa
- 4. See Form 9-331C.
- 5. See Form 9-331C.
- 6. The estimated tops of important geological markers are:

Anhydrite	260 <b>'</b>	Grayburg	2800'	Wolfcamp	8450 <b>'</b>	Morrow 11,175'	
T/Salt	500'	San Andres	3260'	Cisco	9530 <b>'</b>	B/Morrow 22,650'	
B/Salt	1260'	Glorieta	4640'	Lower Stra	awn 10,	490'	
Yates	1425'	lst Bone Spring	6725'	Atoka	10,	750 -	
		<u> </u>	00001		. 10	0051	

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

San Andres	3260'	(Oil)
Wolfcamp	8450'	(Oil)
Cisco	9530 <b>'</b>	(Gas)
Strawn	10,490'	(Gas
Atoka	10,750'	(Gas)

8. See Form 9-331C. All casing will be new.

- 9. See Form 9-331C for depths of strings. Cement volumes and additions as follows:
  - a. 11 3/4" csg: Cmt w/500 sx Class "C" cmt w/2% CaCl. Circ to surface.
  - b. 8 5/8" csg: Cmt w/1600 sx Lite wt cmt & 400 sx Class "C". Circ cmt to surface. Caliper log to be run in conjunction with GR/CNL/DLL/CDL/ BVI logs to determine open hole volume for computation of actual cmt volume to circ to surface.
  - c. 4 1/2" csg: Cmt w/435 sx Lite wt cmt & 300 sx Class "H". Run caliper log in conjunction with open hole logs to determine exact hole volume. Top of cmt anticipa ted @ 8500'. Cmt volume could vary w/development of intermediate horizons.
- 10. The pressure control diagram is attached to Form 9-331C and further described as follows:

11 3/4" casing installation: 10" Ser 900 3000 psi double hydraulic pipe and blind rams. 8 5/8" casing installation: 10" Ser 900 3000 psi double hydraulic pipe and blind rams plus 10" Ser 900 3000 psi Hydril plus 10" Ser 900 Rotating Head.