## U. S. MINERALS LEASE WELL NO. 5, NM-801 SW/4 SE/4 SECTION 30, T-17-S, R-33-E, LEA CO. N.M.

- 1. Location of Proposed Well: 990' FS and 1650' FEL, Sec. 30, T-17-S, R-33-E, Lea County, New Mexico.
- 2. Unprepared Ground Elevation: 4029.2'.
- 3. The geologic name of the surface formation is Quaternary Alluvium and Sand Dunes overlying caliche.
- Type of drilling tools will be standard rotary rig.
- 5. Proposed drilling depth is 4500' (Grayburg-San Andres).
- 6. The estimated tops of important geologic markers are as follows:

Rustler	1210'	Queen	3570
Salado	1320'	Grayburg	4040
Yates	2610 <b>'</b>	<b>3</b>	

7. The estimated depths at which anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Water:	Rustler	1210
Oil & Gas:	Yates	2610
	Queen Grayburg	3570 <b>'</b> 4040 <b>'</b>

- 8. The proposed casing program is as follows:
  Surface String (0-1280') 8-5/8", 32#, K-55, 1 Cond.
  - Production String (0-4500') 5-1/2", 14#, K-55, 1 Cond., 5000# Frac.
- 9. Cement Program: Surface String = Cement to circulate at surface with sufficient Class H w/2% CaCl and 1/4#/sx Flocele mixed 15.8 ppg (Volume to be determined by hydraulic displacement).

Production String = Cement with Trinity Lite Wate w/12#/
sx salt, 10% Diacel D, 1/4#/sx
Flocele, and 3#/sx Gilsonite (11.5#/
gal, 2.5 cu. ft./sx, Thickening Time = 3+ hrs, 24 hr. Strength =
316 psi) followed by 150 sxs of
Class H with 5#/sx salt (slurry WT =
15.9 ppg, yield = 1.2, Thickening Time = 4+ hrs).
(Volume of Trinity Lite Wate to be
determined by caliper and to be sufficient to tie back into 8-5/8" csg.)
Displace plug with 15 barrels of 10%
acetic acid and fresh water. Run
temperature survey to determine top

of cement.

- 10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or API series) and the testing procedure and testing frequency are attached.
- 11. The proposed mud program is attached (see drilling specialties mud letter).
- 12. The testing, logging, and coring programs are as follows:
  No D.S.T.'s or cores. Run open-hole logs: BHC-Acoustilog-GR-Caliper from TD to surface. Dual Lateralog-Microlateralog-GR from TD to 2400'.
- 13. Anticipate no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas.
- 14. The anticipated starting date is immediately upon approval with duration of operations for approximately 30 days thereafter.
- 15. Water Supply: Obtained from Steve Carter and trucked to well site.
- 16. Caliche for road and pad construction to be obtained from State pit 1/2 mile SE of well site and trucked to location.