HARVEY E. YATES COMPANY West Lynch Federal #1 Sec. 19, T-20-S, R-34-E Lea County, New Mexico

Information to comply with NTL-6.

- 1. The surface formation is Quaternary.
- 2. The Red Beds are encountered approximately 150 feet below the surface. The base of the Rustler and top of Salado Anhydrite is at about 1,500 feet. The top of the Yates is about 3,280 feet and the top of the Seven Rivers about 3,520 feet.
- 3. Fresh water may be encountered down to about 250 feet with brackish water and/ or salt water possible in zones to about 1,500 feet. Salt and accompanying Potash will be between 1,600 and 3,200 feet. Oil and gas might be encountered from 3,250 to 3,600 feet.
- 4. 8 5/8" K-55 24# casing proposed to be set and cemented at about -1,500 feet. If production is indicated, 4 1/2" K-55 new 9.5# casing will be set and cemented at total depth of about 3,550 feet.
- 5. Minimum pressure of 3,000# for pressure control equipment which will be functionally tested every 24 hours, attachment.
- 6. Will drill with fresh native mud with a mud seal additive to prevent seepage to 1,500 feet. Drill out intermediate casing with 10#/gallon brine water using lime for pH control of 10-11 and salt gel if needed, maintaining 32-33 sec/1000 cc viscosity. From 3,300 to 3,550 feet increase addition of salt gel to bring mud weight to 10.2-10.4#/gallon, viscosity to 33-36 sec/1000 cc and water loss to 12-15 cc.
- 7. All safety and auxiliary equipment such as Kelly Cocks, mud level monitoring, sub with full opening valve for drill pipe without Kelly, etc. will be available and used.
- 8. Two 100 foot cores might be taken in the Yates sandstone section between 3,250 feet and 3,450 feet. If core results and/or sample analysis are favorable, a drill stem test could be taken between 3,525 feet and 3,600 feet. Electric logs will be run from surface to total depth. If stratigraphic position or the formation examination do not warrant analysis, cores or drill stem tests may not be taken.
- 9. No abnormal conditions expected.
- 10. Starting date of March 15, 1980 and 7 days to complete the operations is anticipated.