U. S. Geological Surve

- 9. Casing Setting Depth and Cementing Program:
 - a. Surface casing will be 9-5/8" casing set at 2050' and cemented with 1000 sacks of lightweight cement plus 200 sacks of Class "C" Neat cement with 2% CaCl2.
 - b. Intermediate casing will be 7" set at approximately 8700' and cemented with 800 sacks Class "H" cement with a .5% friction reducer and $\frac{1}{2}$ # flocele per sack for estimated top of cement 5500'.
 - c. Production casing will be a 5" liner set from 8500' to 9800' cemented with Class "H" cement with .75% friction reducer. Cement volume will be determined from caliper log.
- 10. <u>Pressure Control Equipment</u>: The minimum specifications for pressure control equipment can be seen on the attached Drawing No. 4 of Gulf's blowout preventer hook-up for 5000 psi working pressure.
- 11. <u>Circulating Media</u>: 0' 2050' 2050' - 8700' Brackish water with brine water as needed to increase weight; Polymer as required for samples and DST's; Brine water polymer with 3-4% KCl; Weight adjusted upwards from 10 ppg as well conditions dictate; Viscosity minimum; Filtrate 10-15 cc's.
- 12. Testing, Logging and Coring Programs:
 - a. Formation testing may be done at any depth where samples, drilling rate or log information indicate a possible show or oil or gas.
 - b. Open hole logs will be run at total depth.
 - c. No cores are anticipated.
- 13. <u>Abnormal Pressure or Temperature and Hydrogen Sulfide Gas</u>: We do not anticipate any abnormal pressure or temperature; however, BOP's with remote control and choke manifold as shown on Drawing No. 4 will be installed prior to drilling below surface casing.

The presence of hydrogen sulfide is not anticipated.

- 14. <u>Anticipated Starting Date</u>: Drilling operations should begin approximately January 15, 1980.
- 15. Other Facets of the Proposed Operation: None.

Yours very truly, R. C. ANDERSON Area Production Manager

RLV/jr