March 29, 1976 Harvey E. Yates Company, Inc. Pennzoil Federal No. 1 Page 2

Casing was cemented as follows:

- 1. Mixed and pumped 1000 gals. mud flush (containing 3% KCL).
- 2. Pumped 10 bbls. fresh water.
- Mixed and pumped 825 sxs. Class "H" cement with 3/4 of 1% CFR-2 3. and 5# KCL per sack (mixed 15.8#/gal., yield 1.20 ft.<sup>3</sup>/sx.).
- Dropped top rubber pluq. 4.
- 5. Washed pump and lines.
- Displaced cement with 184 bbls. 3% KCL water. 6.
- Plug down at 9:00 a.m. 3-25-76; pressure increased from 1800 7. to 2600 psig when plug landed.
- Bled pressure; float held (full returns throughout cementing 8. operations).

A temperature survey was taken; top of cement was indicated to be 9640' KB from surface. Wire line measurements indicate a plug back depth of 11,970' KB.

The hole was circulated for three hours with the rig pump. Pump pressure started at 850 psig and ended at 650 psig. Full returns were noted throughout the circulating time. No gas flares were noted.

The casing string weighed 110,000# according to the indicator; 55,000# was set on bottom.

The slips were set, pack-offs, and well head set under Mr. Creed Cox's supervision. The rig was released at 12:00 Noon 3-25-76.

Yours very truly

Janies F CEnand

James F. O'Briant Registered Professional Engineer

JF0:ssh Attachments:

Field Casing Tally Halliburton Field Tickets