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9. The proposed casing program is as follows: Surface: 13-3/8" 48# H40 ST&C new casing set at 625' Intermediate: 9-5/8" 36# K55/HCK55 ST&C new casing from 0-3000' Production: 5-1/2" 17# N80/HP110 LT&C new casing from 0-11000' N80-9000' HP110-2000'

## 10. Casing setting depth and cementing program:

A. 13-3/8" surface casing set at 625' in 17-1/2" hole. Circulate cement with 350sx 35:65 POZ/C w/ 6% Bentonite + 2% CaCl<sub>2</sub> + .25#/sx Cello-Seal followed by 200sx Class C w/ 2% CaCl<sub>2</sub>.

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2% CaCl<sub>2</sub>.

B. 9-5/8" intermediate casing set at 3000' in 12-1/4" hole. Circulate cement with 800sx 35:65 POZ/C w/ 6% Bentonite + 2% CaCl<sub>2</sub> + .25#/sx Cello-Seal followed by 200sx Class C w/ 2% CaCl<sub>2</sub>.

If hole conditions dictate, a DV tool may be run to ensure that the intermediate string is cemented to surface.

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2% CaCl<sub>2</sub>.

- Note: Cement volumes may be adjusted according to fluid caliper.
- C. 5-1/2" production casing set at 11000' in 8-3/4" hole. Cement with 770sx 15:61:11 POZ/C/CSE w/ .5% FL-25 + .5% FL-52 + 8#/sx Gilsonite followed by 75sx Class C w/ .7% FL-25.

Estimated top of cement is 8000'.

- Note: Cement volumes may need to be adjusted to hole caliper.
- 11. Pressure Control Equipment

## 0-625' None

- 625-3000' 13-3/8" 3M annular preventer, to be used as divertor only. Exhibit A
- 3000-11000' 11" 5000# ram type preventers with one set blind rams and one set pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 8500'. Exhibit A.