## **CEMENTING PROGRAM**

## Moore #25-R

## Intermediate:

Preflush, 1st stage 40 bbl. Mud Flush + dye marker 10 bbl. Fresh Water 645 cu. ft. Standard Cement Tail, 1st stage + 0.4% Halad-344 slurry 1 + 0.4% CFR-3 TOC@Stage Tool + 2.0% Microbond + 5 lb/sk gilsonite + 1/4 lb/sk flocele \* \* \* (use slurry 5 if significant losses are encountered during drilling, slurry 5 is slurry 1 with 10 lb./sk total gilsonite) 20 bbl. Fresh Water + dye marker Preflush, 2nd stage 60 bbl. Poz Scavenger (Poz A + 2% gel) Halliburton Light Cement (std cmt) 1440 cu. ft. Lead, 2nd stage slurry 2 + 7 lb/sk salt + 5% Calseal TOC@Surface + 0.5% VersaSet + 3/8 lb/sk flocele \* \* \* (use slurry 4 if significant losses are encountered during drilling, slurry 4 is slurry 2+10 lb./sk gilsonite) 129 cu. ft. 100 sk Standard Cement Tail, 2nd stage + 0.4% Halad-344 slurry 3 + 0.4% CFR-3 + 2.0% Microbond + 5 lb/sk gilsonite + 1/4 lb/sk flocele **Slurry Properties:** water density yield (gal/sk) (ft3/sk) (lb/gal) 11.00 1.53 7.78 Scavenger 5.40 15.11 1.29 slurry 1 9.19 1.80 slurry 2 13.10 5.40 1.29 15.11 slurry 3 slurry 4 12.60 2.04 9.83 5.60 14.61 1.40 slurry 5

Casing Equipment:

Halliburton

9 5/8", 36 ppf, LT&C

- 1 Super Seal II Float Shoe
- 1 Super Seal II Float Collar
- 1 Multiple Stage Cementer

100 ft. above the Fruitland Coal top or apx. 1 on first 3 joints, then every 5th collar,

2114 ft.

25 S-4 Fluidmaster Centralizer

also 1 on each collar above and below stage tool

1 on each joint below the stage tool

1 Cement Baskets

- 1 2 Stage Plug Set
- 3 Lock Clamp
- 2 Weld A