Well Information ...

Depth Casing Size Hole Size

400 ft 13 3/8 in 17 1/2 in

Calculated Cement Fill Excess Calculated

TO SURFACE 100 %

Job Recommendation .

FLUID 1: CEMENT Premium Plus Cement

2% Calcium Chloride (Accelerator) Mixed With Fresh Water

Fluid Weight: Fluid Yield: Fluid Water Ratio:

14.8 PPG 1.34 ft³/sk 6.34 gal/sk

63.4 bbls

99.0 bbls

415 sks

420 sks

Total Mixing Fluid: Fluid Volume: Calculated Volume: Proposed Volume:

Cement Intermediate Casing

Well Information .

Depth Casing Size Hole Size

4000 ft 8 5/8 in 12 1/4 in TO SURFACE

Calculated Cement Fill Excess Calculated Previous Csg. Depth Previous Csg. Size

100 % 400 ft 13 3/8 in

Job Recommendation .

FLUID 1: LEAD CEMENT Halliburton Light Premium Plus 15 lb/sk Salt

.25 lb/sk Flocele (Lost Circulation)

Mixed With Fresh Water

Fluid Weight: 12.7 PPG Fluid Yield: 2.15 ft3/sk Fluid Water Ratio: 11.64 gal/sk Total Mixing Fluid: 365.8 bbls Fluid Volume: 503.5 bbls Calculated Volume: 1315 sks Proposed Volume:

FLUID 2: TAIL CEMENT Premium Plus Cement

2% Calcium Chloride (Accelerator) Mixed With Fresh Water

Fluid Weight: Fluid Yield: Fluid Water Ratio: Total Mixing Fluid: Fluid Volume:

Calculated Volume:

Proposed Volume:

14.8 PPG 1.34 ft3/sk 6.34 gal/sk 37.7 bbls 59.7 bbls 250 sks 250 sks

1320 sks

Cement Production Casing

Well Information .

Depth 12900 ft Casing Size 5 1/2 in Hole Size 7 7/8 in Calculated Cement Fill 2000 ft Excess Calculated 35 % Excess Over Caliper 15 % Mud Weight 10.5 ppg 210 °F BHST

Job Recommendation .

FLUID 1: CEMENT 50/50 POZMIX/PREMIUM CEMENT .3% HALAD®-344 (Fluid Loss) 2% Halliburton Gel (Extender) 6 lb/sk Salt (Accelerator) Mixed With Fresh Water

Fluid Weight: 14.4 PPG Fluid Yield: 1.31 ft3/sk Fluid Water Ratio: 5.84 gal/sk Total Mixing Fluid: 50.1 bbls Fluid Volume: 84.0 bbls Calculated Volume: 360 sks Proposed Volume: 360 sks