

Lily "ALY" Federal #4

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B. CEMENTING PROGRAM:

Surface Casing: Set with 500 sacks "Class C" with 2% CaCl₂ with weight of 14.8 ppg and yield 1.32 cu.ft/sack, circulated to surface.

Intermediate Casing: Lead slurry of 1000 sacks "Lite C" with 10# salt, 1/4# Cellocel with weight of 12.7 ppg and yield 1.98 cu.ft/sack. Tail slurry of 250 sacks "Class C" With 2% CaCl₂ with weight of 14.8 ppg and yield 1.32 cu.ft/sack circulated to surface.

Production Casing: First stage with 175 sacks "Class H" + 8# sack CSE + 0.6% CF-14 + 5# sack Gilsonite + 0.35% thiftylite with weight of 13.6 ppg and yield 1.32 cu.ft/sack to about 7100'.

2nd Stage: DV tool set at approximately 7100'. Cement with 425 sacks "Class C" with 10# sack CSE, 1/4# sack cellocel with weight of 11.5 ppg and yield 2.25 cu.ft/sack followed by 300 sacks "H", 8# sack CSE, 0.5% CF-14 + 0.35% thiftylite with weight of 13.3 ppg and yield 1.82 cu.ft/sack calculated to tie back to intermediate casing.

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 - 500'	FW/Gel LMC	9.1 ppg	32	N/C
500' - 4200'	Brine	10.0 ppg	28	N/C
4200' - 6500'	Cut Brine	8.7 ppg	28	N/C
6500' - 8300'	Starch/Cut Brine	8.7-8.9 ppg	28	15cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: Every 10' from surface casing to TD.

Logging: CNL-LTD from TD to casing, with GR-CNL up to surface; DLL from TD to casing.

Coring: None anticipated.

DST's : Any tests will be based on the recommendation of the well site Geologist as warranted by drilling breaks and shows.

7. ABNORMAL CONDITIONS:

No abnormal temperatures or pressures are anticipated. No H₂S has been reported or known to exist from previous drilling in this area at this depth.

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 15 days to drill the well with completion taking another 15 days.