4. PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program:

Csg. OD	Wt/Ft.	Grade	Cplg.	Condition	Depth
8 5/8"	24#	J-55	STC	New	0 - 400'+/-
4 1/2"	9.5#	J-55	STC	Used	0 - 3,850'+/-
* 5 1/2"	14.0#	J-55	STC	Used	0 - 3,850'+/-

* (Final production casing size will be determined from MOC inventory at the time well is drilled. Either design will meet casing design specs. listed below.

Minimum Casing Design Factors:
Collapse 1.125; Burst 1.0; Tensile Strength 1.8
(*See Schedule #1 and #1A*)

B. CEMENTING PROGRAM:
Surface Casing: 300 sacks of Class "C" Neet containing 3% $CaCl_2$.

Production Casing: 300 sacks of Class "C" Lite containing .5#/sack cellophane flakes + 2% $CaCl_2$ + 5#/sack gilsonite followed by 200 sacks of Class "C" neet containing .5% fluid loss additive + .2% friction reducer additive + 5#/sack compressive strength enhancer + 5% NaCl.

5. MUD PROGRAM:

Interval	Type	Weight	Viscosity	Fluid Loss
0-400'	FW gel	8.4 - 8.7	28 - 45	NC
400'-3850'	Cut Brine	9.2 - 9.8	28 - 35	NC

Sufficient mud materials to maintain mud properties, control loss circulation and contain any abnormal pressure that may be encountered; will be available at the well site during drilling operations. Mud will be checked daily by mud company personnel.