

(8) Casing Program:

- 13-3/8", 48#, N-40 @ 400' (New)
- 8-5/8", 24#, N-55 @ 3,500' (New)
- 4-1/2", 13.5#, N-80 Buttress from surface to 1,000' (New)
- 4-1/2", 11.6#, N-80 LT&C from 1,000' to 10,500' (New)
- 4-1/2", 13.5#, N-80 LT&C from 10,500' to 11,550' (New)

(9) Setting Depth of Casing Strings & amount and Type of Cement:

<u>Size</u>	<u>Depth</u>	<u>Amount &amp; Type of Cement</u>
13-3/8"	400'	500 sxs Class H w/1% CaCl
8-5/8"	3,500'	800 sxs Class C w/.3 of 1% CFR-2, 5# Salt/sx and 10# Sand/sx.
4-1/2"	11,550'	700 sxs Class H w/1/2 of 1% CFR-2 & 5# RCL/sx

Additional cementing through DV tool s might be necessary on 4 1/2" casing.

(10) Specifications for Pressure Control Equipment (See attached Schematic)

12" Shaffer Type B Hydraulic BOP 3000 psi & 10" GK Hydrill 3000 WP  
 When nipping up, test blowout preventor and choke manifold to 1500 psi.  
 Operate BOP equipment once a day, or more often if directed to do so by Company representative.

An independent contractor will conduct a BOP test after 3,500' and prior to drilling Wolfcamp at 8,600'.

Items of the flowout control equipment from top of test plug in casing spool up through Hydril will be tested to 2500#, with separate tests being made at the pressure of 5,000# to pipe rams, blind rams, choke manifold, upper kelly cock, drill pipe safety valve, and to the valves and fittings of the BOP stack proper. Blowout control equipment will be operated after test. Closures will be made using closing unit pump only to a pressure of 1500# for testing ram type BOPs and 1200# for testing Hydril. Accumulators will be tested 3000#. Control valves will be operated and checked.

(11) Mud System:

- 0' - 8,600' - Native fresh water mud w/paper to control seepage. Weight = 8.5#/gal.
- 8,600' - 10,400' - Cut brine (if necessary) to control gas or shale. 1/2#/bbl. drispac (if Necessary) to control seepage. Weight = 8.8#/gal.
- 10,400' - - Switch from reverse pit to steel pits. Displace hole w/clean fluid: cut brine, 4% KCL, paper & possibly 1/2#/bbl. of drispac. Weight = 9.0#/gal.
- 10,400' - TD - Maintain above systey to TD. Weight = 9.0#/gal.