

5. Minimum specifications for pressure control equipment:

- A. Wellhead equipment - Flanged type: 13-3/8" STC x 12" 3000 psi, A-section, 12" 3000 psi x 10" 5000 psi B-section, 10" 5000 psi x 9" 5000 psi tubing head spool, 9" 5000 psi x 2-7/8" 5000 psi tubing head adapter.
- B. Blowout preventers - Refer to attached drawings and lists of equipment titled "Type II-B" for description of BOP stacks and choke manifold.
- C. BOP control unit - Unit will be hydraulically operated and have at least 4 control stations.
- D. Testing - When installed on 13-3/8" surface casing the BOP stack will be tested to a low pressure (200-300 psi) and to 2000 psi. Casing rams will be tested in like manner when installed prior to running production casing. An operational test of the blowout preventers will be performed on each round trip (but not more than once each day); the annular and pipe ram preventers will be closed on drill pipe, and the blind rams will be closed while pipe is out of the hole.

6. Type and anticipated characteristics of drilling fluid:

<u>Depth Interval (Feet)</u>	<u>Mud Type</u>	<u>Weight (ppg)</u>	<u>Funnel Visc. (Sec/Qt)</u>	<u>WL (cc)</u>	<u>pH</u>
0- 600'	FW Mud	8.6-9.0	30-33	--	10.5
600-3000'	Brine	10	30-33	--	10.5
3000-TD	Cut Brine	8.8-9.2	35-40	10	10.5

7. Auxiliary control equipment:

- A. Kelly cocks: Upper and lower installed on kelly.
- B. Safety valve: Full opening ball type to fit each type and size of drill pipe in use will be available on rig floor at all times, in open position, for stabbing into drill pipe when kelly is not in the string.
- C. Trip tank to insure that hole is full and takes proper amount of fluid on trips. Will be used during drilling of production hole.
- D. Mud system monitoring equipment and floats at the bit will not be used unless conditions dictate.