

Proposed Casing:

7-7/8"      0' - TD      5-1/2"      17#, K-55, LT&C

A kelly cock will be in the drill string at all times, during drilling operations.

A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

Cement Program:

Casing Already in Place:

11-3/4" Surface Casing  
(14-3/4" open hole)

Cemented to surface using Class "C"  
+ 4% Gel + additives, followed by Class  
"C" + 2% CaCl<sub>2</sub>.

8-5/8" Intermediate Casing  
(12-1/4" open hole)

Cemented to surface using Class "C"  
+ 4% Gel + additives, followed by Class  
"C" neat.

Proposed Casing:

5-1/2" Production Casing  
(7-7/8" open hole)

To be cemented to intermediate casing  
shoe using Class "C" + 16% Gel +  
additives, followed by Class "H" + additives.

The above cement slurries will be designed using caliper logs when available to circulate cement to desired depth.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in attachment will consist of a (5M system) double ram type (5000 psi WP) preventor and annular preventor. The unit will be hydraulically operated and equipped with blind and pipe type rams. BOP's will be installed on the 8-5/8" intermed casing and will be utilized continuously until total depth is reached and production casing is in place and cemented. All BOP's and associated equipment will be tested to rated WP's before the side-tracking operation begins.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These function tests will be documented on the daily drillers log. A 2" kill line and 2" choke line will be incorporated in the drilling spool below the ram-type BOP. Other BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.