Intermediate Casing:

12 1/4" hole is to be drilled below the surface casing to an anticipated depth of 4300' (in top of Delaware) using a saturated salt fluid. A partial loss of drilling fluid may occur in the Capitan Reef but lost circulation additives are expected to keep any loss at a minimum. Casing setting is anticipated at follows:

(Note: Hole conditions may require the use of a Halliburton DV tool and B.O.T. pin packer for stage cementing of the casing).

No. Jts.	Description	Thds Off Length	From	To
--	Rotary correction	15	0	15
62	8 5/8" OD 24#/ft K-55 ST&C casing	2481	15	2496
13	8 5/8" OD 28#/ft H-40 ST&C casing	500	2496	2996
32	8 5/8" OD 32#/ft H-40 ST&C casing	1260	2996	4256
--	Float collar	2	4256	4258
1	8 5/8" OD 32#/ft H-40 ST&C casing	40	4258	4298
--	Float shoe*	2	4298	4300

*The float shoe is to be equipped with lateral exits for cement as it is intended to rest part of the casing weight on bottom.

The 8 5/8" OD casing is to be drifted for a 7 7/8" bit.

The bottom three (3) joints are to be sand blasted to remove mill scale and lacquer and in addition are to be welded and sealed with HOWCO-weld. Positive type centralizers are to be recommended; one set on each of the bottom three (3) joints. API modified thread lubricant is to be used on the casing threads.

Prior to running the 8 5/8" casing, a caliper survey is to be run to determine actual cement volume required.

Assuming a single stage cement job, the 8 5/8" OD casing is to be cemented to the surface using a sufficient volume of API class "C" containing 24 1/2# salt per sack and 1% $CaCl_2$ by weight of cement (mixed at a slurry weight of 14.7 PPG, yield of 1.68 CF/sack to fill from the base of salt to the surface, followed by a sufficient volume of API class "C" containing 2% $CaCl_2$ (mixed at 14.0 PPG, yield of 1.53 CF/sack) to fill from TD to the base of salt. A W.O.C. time of 24 hours will be observed after the plug is down.