

Good solids control is necessary, particularly in the "Torquay Group" of claystones.

Consideration should be given to maintaining an excess of at least 100 ppm Calcium, as distinct from total hardness (Calcium and Magnesium), in the filtrate. This will help prevent excessively high progressive gel strengths caused by carbonate/bicarbonate alkalinities. Generally, carbonates are more reactive to pressure and temperature. Foaming will be a slight problem but can be reduced with the use of aluminium stearate and diesel. Do not use liquid defoamers. Overtreatment from liquid defoamers cause "Foaming".

The total number days spent waiting on weather, were 34.6 days. Five additional days were spent handling anchors.

12-1/4" Hole, 5772 ft to 10981 ft  
9-5/8" Casing Set at 10955 ft

### General

While drilling out the 13-3/8" casing float collar and shoe, the seawater mud from the previous interval was displaced with a freshly prepared Freshwater/Bentonite/Starch mud which had been pretreated with Sodium Bicarbonate and Lignosulphonate to minimize the effects of cement contamination. The weight of this mud was initially maintained at 8.9 ppg with the use of all available solids control equipment. Mud properties were maintained by the addition of new premixed mud with polymers from the reserve system.

Below 6500 ft, the Bentonite content of the mud was gradually raised from 17.5 ppb to 20 to 25 ppb to reduce the HT-HP fluid loss and to provide increased mud stability during extended periods of waiting on weather.

Increasing background gas readings below 7500 ft suggested a mud weight increase. The weight was raised from 8.9 ppg to 9.2 ppg. After further gas (20%) on bottoms up at 7726 ft, the weight was again increased to 9.4 + ppg, and 9.6 ppg by 8000 ft after 50% bottoms up gas after waiting on weather.

Carbonate contamination from CO<sub>2</sub> was encountered from 9000 ft - 10,000 ft. This was treated with lime to counteract the contamination.

The hole was logged at a T.D. of 10,981 ft. Estimated pore pressures from R.F.T. data suggest normal pressures throughout this interval:

9250'	8.66 ppg equivalent
9200'	8.67 " " "
9810'	8.60 " " "
6010'	8.67 " " "
5970'	8.67 " " "

9-5/8" casing was run and cemented at 10,955 ft.