



**Wellbore History**

**GENERAL**

The primary objective of the 1/5-4 S well was to test the hydrocarbon bearing potential of a Chalk prospect close to the crestal position on the NE side of a salt diapir. The well path was also planned to penetrate the edge of a mapped Palaeocene fan system. Hydrocarbon bearing Forties sandstone were targeted and treated as a secondary objective. Thicker and better quality sandstones were expected to be present down flank of the structure.

The overburden was known to contain charged feature, as experienced by the Conoco well 1/5-3 S. In order to avoid these fractures and the associated well bore instability problems, a delineated well path using Oil Based Mud was planned from the 12.25" hole section to TD.

**OPERATIONS**

Exploration well 1/5-4 S was spudded with the semi-submersible installation Deepsea Bergen on 17 April 2002 and drilled deviated to TD at 3090 m in rocks of Permian age. Drilling went very well and closely followed the plan. The well was drilled with seawater and gel sweeps down to 928 m and with KCl/Glycol mud from 928 m to 1646 m, and with oil based mud from 1646 m to TD.

Top Palaeocene was encountered 55 m higher than prognosis. Two thin sandstone beds were drilled, both within the Lista formation (Andrew Formation sandstones). The lower stringer was tight but contained some shows. The upper stringer had better reservoir properties however. Forties sandstone were absent. The primary objective, the Chalk, was 118 m higher than forecast, and 49 m thick, which was 80 m thinner than expected. The chalk was found to be water saturated with a maximum porosity of 25 %, and in pressure communication with the thin Palaeocene Andrews sand stringer. Minor shows were reported in the chalk. No sidewall or conventional cores were cut. An FMT sample was taken at 2945 m. It recovered only water. The well was permanently abandoned as a dry well with shows on 24 may 2002

**TESTING**

No drill stem test was performed

**LITHOSTRATIGRAPHY & HISTORY FOR WELL: 1/5-4 S**