



Wellbore History

GENERAL

Exploration Well 25/8-7 is located East North-East of the Jotun Field. The two main objectives for drilling well 25/8-7 were to test the hydrocarbon potentials of the sandstones in the Lower Palaeocene Heimdal Formation (Krap prospect) and in the Middle Jurassic Hugin Formation.

OPERATIONS AND RESULTS

Well 25/8-7 was spudded with the semi-submersible installation "Dyvi Stena" on 21 July 1995 and drilled to a total depth of 2380 m, 40 metres into the Early Jurassic Amundsen Formation. The well was drilled with seawater and high viscous pills through the 36" and 17 1/2" hole sections down to 1070 m. After setting the 13 3/8" casing the mud system was changed to a 1.27 SG KCL/ polymer system with 3 - 4 % glycol added for drilling the 12 1/4" and 8 1/2" sections to final TD. No shallow gas or boulder beds were encountered in the uppermost well section.

The well penetrated mainly clays and claystones in the Nordland, Hordaland and Rogaland groups. Grid Formation sands were encountered from 1293 m to 1348 m and 1484 m to 1504 m. Minor thin distal remnants of the Heimdal Formation sands were encountered between 2050 and 2061.5 metres, however these proved water wet. Top Ty Formation was reached at 2157 m, consisting of clean sandstone divided by a thin shale bed. It continued down to top Shetland Group at 2209 metres. No hydrocarbons were found in the Ty Formation. The Shetland Group consisted mainly of chalk with the Cromer Knoll Group consisting of limestones interbedded with claystones and marls. The Hugin Formation sandstones came in at 2318 m and were found to be water bearing. Traces of dark brown tarry dead oil staining together with weak, dull yellow fluorescence and slight petroliferous odour was seen in the Heimdal Formation sands and claystones from 2050 m to 2061.5 m. Similarly traces of dark brown tarry dead oil stained grains were described at the top of the Hugin Formation at 2318 m and in a sidewall core recovered from 2315 m. Post well organic geochemical analysis performed by Geolab Nor indicates hydrocarbons, possibly locally migrated, occur throughout the Heimdal Formation interbedded sand and claystones section. Traces of migrated liquid hydrocarbons are present in the Ty Formation interval 2187 m - 2199 m with larger amounts detected in the Hugin Formation at around 2319 m and in the underlying Sleipner Formation sands, e.g. at 2333 m. Three cores were cut in the 8 1/2" hole section. Two cores, totalling 8.9 metres of sand and clay were cut in the Heimdal Formation and one 19.68 metre core was cut in excellent reservoir sands of the Hugin Formation.

One FMT fluid sample was taken at 2105.5 m in the Våle Formation. The 10 l clean-up chamber was drained at well-site and contained only mud filtrate and formation water, the 4 l PVT chamber was sent onshore and flash to stock-tank conditions in laboratory gave gas and water with a gas/water ratio of 2.2 Sm³/Sm³. The gas gravity (air = 1) was 0.5956. The well was permanently abandoned as a well with shows on 12 August 1995.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/8-7