



Wellbore History

GENERAL

Exploration well 8/10-1 was drilled on a gentle salt dome structure about 12 km west of the Ula Field on the Sørvestlandet High. The objectives were to test Tertiary and Mesozoic horizons. More specifically, the well should test the Tertiary Miocene section equivalent to the gas-bearing sand section in well 2/3-1 (35 miles southeast), Eocene sands which had minor gas shows in well 7/8-1 (25 miles northwest) and with oil shows in the Shell 1/3-1, Paleocene sands productive in the Cod Field (25 miles east), fractured Upper Cretaceous limestone with condensate and gas shows in well 1/3-1 (20 miles southwest), and Jurassic and Triassic sands that were very porous and permeable in well 7/8-1. The latter also had small shows in wells 7/8-1 and 9/4-1 (50 miles northwest).

OPERATIONS AND RESULTS

The well was spudded with the semi-submersible installation Ocean Viking on 30 May 1969 and drilled to TD at 3099 m in the Late Permian Zechstein Group. The hole deviation increased considerably from about 2225 m to TD, with a maximum of 13.5 degrees at 2774 m and about 10 degrees at the last survey point at 3018 m. Assuming an average deviation of 9 degrees from 2200 m to TD this results in 3089 m TVD RKB at TD. The pipe stuck at 3042 m. It was worked free after spotting diesel and Mudban. Otherwise no significant problems were encountered during drilling operations. The well was drilled with seawater down to 655 m, with a sea water/gel mud system from 655 m to 2134 m, and with a lignosulphonate type mud from 2134 m to TD. Below 655 m the well was drilled with 1 % to 8 % of diesel oil in the mud, with the higher concentrations towards TD.

None of the sedimentary sequences penetrated by the well contained hydrocarbons. A more or less continuous Triassic section consisted of mainly shale /claystone with traces of sand. The Late Jurassic was represented by the Sandnes Formation sandstone and the Kimmeridge Clay (Flekkefjord Formation). An unconformity marks the boundary to the Lower Cretaceous shale/claystone sequence. Late Cretaceous sedimentation of carbonates took place in an open marine environment. The Våle Formation is represented in the well and shows the onset of erosion and clastic sedimentation at the beginning of the Tertiary. Volcanic activity is seen at the Paleocene Eocene boundary (Balder Formation). Sedimentation of mostly fine-grained clastic sediments is characteristic for the Tertiary period. This was a period of continuous subsidence in the North Sea. No core or sidewall core was taken. No fluid sample was taken.

The well was permanently abandoned as a dry hole on 1 July 1969.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 8/10-1