



Wellbore History

GENERAL

Well 15/12-1 was drilled in order to evaluate the Paleocene and Jurassic formations on a closed structure 5 km northeast of the Maureen Field which is located just across the UK-Norwegian median line in UK territory. The principle objectives of the 15/12-1 test were the Paleocene and Dogger (Hugin Formation) sandstones where oil accumulations had been proven in the Maureen field 5 km to the southwest on British sector.

The well is Reference Well for the Sleipner Formation.

OPERATIONS AND RESULTS

Wildcat well 15/12-1 was spudded with the semi-submersible installation Ross Rig on 7 July 1975 and drilled to a total depth of 3269 m in Triassic fine-grained sandstone with green and red-brown shale of the Skagerrak Formation. The well was drilled with a lignosulphonate type of mud.

The Paleocene sandstone at 2633 m to 2643 m in 15/12-1 was encountered 6 m lower than in the Maureen no. 2 well. The sandstone is medium to coarse grained with good porosity (26%), but water wet. The Hugin sandstone was encountered some 50 m higher than in the Maureen no. 2 well. Oil shows were encountered on the cores from the Hugin Formation, but log analysis and FIT proved the sandstone to be water bearing. The logs also indicated shows of hydrocarbon in the Late Cretaceous limestone at 2925 - 2955 m, but log porosity was calculated from 0 to 6%, too tight to obtain a sample. The Late Triassic has good sand development that could be adequate for accumulation of hydrocarbons. During the drilling of the Triassic section, the background gas in mud and cuttings was near zero.

Eight cores were cut in the well. Paleocene sands (Lista and Maureen Formations) were cored from 2612.1 m to 2651.1 m. One core was cut in the Heather Formation from 3067 m to 3073.3 m; one core was cut from the Hugin Formation into the Sleipner Formation from 3125.7 m to 3143.7 m. The Sleipner Formation was further cored in three cores down to 3183 m. On the basis of log analysis, two points for FIT tests were picked: one point at 3142.5 m (\bar{I} = 23%, SW = 66%) and one point at 3126.5 m (\bar{I} = 11.2%, SW = 31%). Test I at 3142.5 m produced 0.3 litres mud and 9.9 l water with a light skim of oil. The oil skim probably came from the FIT tools hydraulics. Based on the chloride content the water in the sample probably contained a large proportion of mud filtrate. The other sample was a failure due to tight formation. The well was permanently abandoned as a dry well with shows on 6 September 1975.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/12-1