



Wellbore History

GENERAL

Well 35/9-1 was drilled on the Måløy Slope north of the Horda Platform. The drilled "A-structure" is an asymmetric horst with the larger fault to the east, antithetic to the Øygarden fault zone. The primary objective of well 35/9-1 was to test the hydrocarbon potential and reservoir quality in Middle Jurassic sandstones of the Brent Group. Secondary objective was to test the hydrocarbon potential and reservoir quality in the Dunlin Group and Statfjord Formation. A third objective was to test the prospectivity in Cretaceous fans, building out from the southeast. The well would also test the cap rock properties as well as the possibility of any reservoir rocks in the Late Jurassic. The commitment was to drill to 4000 m, or into Triassic rocks whatever came first. No shallow gas was predicted at the well location.

OPERATIONS AND RESULTS

Wildcat well 35/9-1 was spudded with the semi-submersible installation Polar Pioneer on 1 April 1989 and drilled to TD at 2350 m in crystalline basement rock. In the 17 1/2" section the mud system became heavily contaminated from cement after the 13 3/8" casing had parted between 1067 m and 1083 m. To cure this the 9 5/8" casing was run and cemented inside the 13 3/8" casing. Otherwise no significant problems were encountered in the operations. The well was drilled with seawater and hi-vis pills down to 815 m and with KCl/polymer mud from 815 m to TD.

No sands were encountered within the Early Cretaceous sequence. The Jurassic was found gas bearing from 2036.5 m in the Viking Group, through the Brent Group, and with a somewhat uncertain gas/oil contact at 2282 m in the Early Jurassic Dunlin Group. An oil-down-to contact was found at 2301 m in the Dunlin Group. The reservoir in the Viking Group consisted of interbedded shales and sandstones of the Fensfjord, Krossfjord, and Heather Formations. RFT tests showed that there is no pressure communication between the Brent Group and the Viking Group. No Triassic succession was present at the well location; the Dunlin Group (Pliensbachian age sediments) rested directly on metamorphic basement.

Four conventional cores were cut in the Viking Group and another four in the Brent and Dunlin Groups and ca 2 m into the basement. A segregated RFT sample was taken at 2282.5 m. It recovered 5 litres of oil in the 2 3/4 Gallon chamber and 2.3 litres of oil in the 1 Gallon chamber, in addition to some gas and water/filtrate.

The well was prepared for testing. It was suspended as an oil and gas discovery on 7 May 1989, and the rig headed for Stavanger for TOGI Fjordtest. Well testing was postponed for a re-entry after the TOGI assignment.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 35/9-1