



Wellbore History

GENERAL

Well 30/11-3 was drilled in the Fensal sub-basin in an area east of the Frigg and Odin Fields in the North Sea. The primary objective was to test Middle Jurassic sandstones of the Brent Group and Early Jurassic sandstones of the Statfjord Group in a westward tilted horst block.

The well is type well for the Hardråde Formation and reference well for the Svarte, Tryggvason and Kyrre formations.

OPERATIONS AND RESULTS

Wildcat well 30/11-3 was spudded with the semi-submersible installation Borgny Dolphin on 17 November 1982 and drilled to TD at 4662 m in the Early Jurassic Statfjord Group. When entering sandstones in the Statfjord Group at 4637 m the well kicked, probably due to overpressured gas. After efforts to stabilise the well the decision was made to abandon the well before a full evaluation of the Statfjord Group had been made. The well was drilled with spud mud down to 640 m, with KCl/polymer mud from 640 m to 3053 m, and with Drispac/lignosulphonate - gel/Resinex mud from 3053 m to TD.

Well 30/11-3 encountered reservoir quality sands in the Tertiary (Frigg Formation and Heimdal Formation) and in the Jurassic (Brent Group and Statfjord Group). Oil saturations were seen in several thin sands in the Brent Group between 3434 m and 4025 m. Core and log evaluation indicated that these were probably due to residual oil only (saturations below a cut-off value of 50%). True oil shows were recorded intermittently only between 3434 m and 3600 m. Possible pay zones with reasonable porosity and permeability would be thin, with a net of only 13 m based on petrophysical evaluation. Log evaluation also indicated high gas saturations (up to more than 80%) in the Statfjord Group. However, due to the short penetration of this reservoir, the significance of this discovery could not be assessed and the hydrocarbon contact was not be established. The well penetrated an unexpected thickness of sealing Dunlin Group shales, which were considered positive for the Statfjord Group prospects.

Two cores were cut in succession in the interval 3445 m to 3478 m with 100% recovery. RFT fluid samples were taken at 3454 m (water + trace oil) and 3667 m (water).

The well was permanently abandoned on 14 March 1983 as a dry well with shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/11-3