



Wellbore History

GENERAL

Well 25/11-15 was drilled east of the Balder Field complex on the Utsira High in the North Sea. The main objective was to test the hydrocarbon potential of the Paleocene Heimdal Sand in the Hermod prospect.

OPERATIONS AND RESULTS

Wildcat well 25/11-15 was spudded with the semi-submersible installation Transocean 8 on 10 November 1991 and drilled to TD at 2035 m in the Early Jurassic Statfjord Formation. Due to shallow gas warning an 8 1/2" pilot was drilled from 239 to 390 m. No shallow gas was found. The well was drilled with seawater and viscous bentonite sweeps down to 1312 m and with KCl/PHPA/Polymer mud from 1312 m to TD.

The Balder Formation was encountered at 1660 m. It contained rare sandstone stringers close to the top and these had good oil shows. This was the only oil show recorded outside of the Heimdal Formation. A 64 m thick Heimdal Formation Sandstone was penetrated from 1734 m to 1798 m. The sandstone was oil bearing down to a well-defined OWC at 1787 m. The net pay thickness was 51.88 m with an average porosity of 34.5% and an average Sw of 12.5%.

Seven cores were cut from 1680 m to 1799 m, starting 7 m below the top Sele Formation and ending 1 m below the base of the Heimdal Formation. A total of 20 good RFT pressure points were recorded giving a fluid density of 0.86 g/cc in the hydrocarbon bearing zone. Two fluid samples were attempted, but were abandoned after problems with sand plugging.

The well was permanently abandoned on 25 December 1991 as an oil Discovery.

TESTING

A single production test was performed over the interval 1736 - 1775 m in the Heimdal Formation. The well flowed 525 Sm³ oil and 7500 Sm³ gas /day through a 25.4 mm choke. The GOR was 14 Sm³/Sm³ and the oil was 0.940 g/cm³. The gas gravity was 0.640 with 0.3% CO₂ and 0.2 ppm H₂S. The bottom hole temperature, recorded at 1695.08 m gauge depth, was 76.6 deg C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/11-15