



Wellbore History

GENERAL

Well 25/11-16 was drilled south of the Balder Field complex on the Utsira High in the North Sea. The main objective was to test the hydrocarbon potential of the Heimdal Formation within the "Hanna" mound. Possible younger sand developments in the Lista and Sele Formations were secondary targets.

OPERATIONS AND RESULTS

Wildcat well 25/11-16 was spudded with the semi-submersible installation Vildcat Explorer on 29 June 1992 and drilled to TD at 1945 m in the Late Cretaceous Hod Formation. The well was drilled with spud mud down to 1339 m and with CaCO₃/NaCl mud from 1339 m to TD.

The primary target Heimdal Formation was encountered from 1767 m to 1872 m. Gross thickness is 105.75 m with 83.9 m net sand. The formation was oil bearing with 18.87 m net pay of heavy oil (0.85 g/cc at reservoir conditions) down to a series of claystone beds at 1786 m. The average porosity in the oil zone was 37.5% and the average Sw was 12.8%. The reservoir sand is very poorly consolidated, homogenous and has a net to gross ratio in the oil zone of 0.96. The average range of both horizontal and vertical permeabilities is 10 to 14 Darcies. A free water contact was established at 1793 m from MDT data. The oil/water contact appears to occur at the base of the sand unit at ca 1790 m (1765 m TVD MSL). In addition to oil shows in the Heimdal Formation oil zone oil two isolated shows were recorded in thin sand stringers at 1713 m in the Balder Formation and at 1735 m in the Sele Formation.

A total of 200 m core was recovered from 14 cores taken in the interval 1699 m to 1914 m (93% recovery), starting 1 m below the top of the Balder Formation and ending 17 m into the Tor Formation. A total of 26 pressure points were recorded with the MDT tool. Fluid samples were taken at 1774 m, 1793.5 m, and 1838 m.

The well was suspended without testing on 24 July 1992 as an oil discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/11-16