

Wellbore History

GENERAL

Well 34/7-16 is located between the Statfjord and Snorre Fields on Tampen Spur in the Northern North Sea. The primary purpose of the well was to test the Brent Group reservoir on the C-Plus prospect. A secondary objective was to test the reservoir of the Statfjord Formation. The well was drilled on a high position of the structure and was estimated to reach the reservoir at 2349 m MSL. Shallow gas could occur at 448, 500, and 557 m.

OPERATIONS AND RESULTS

Wildcat well 34/7-16 was spudded with the semi-submersible installation Scarabeo 5 on 13 August 1990 and drilled to TD at 2700 m in the Early Jurassic Amundsen formation. At this depth the well was temporary abandoned due to time schedule for the rig. No significant problems were encountered in the operations. The resistivity log indicated small amounts of gas in a sand layer at 447 m. Otherwise no indication of shallow gas was observed. The well was drilled with spud mud down to 922 m and with KCl mud from 922 m to TD.

Apart from the sandy Utsira Formation of Miocene/Pliocene age encountered between 976 - 1081 m the well penetrated mainly clay stone down to the Top Jurassic. Late Cretaceous (Coniacian age) sediments were found to rest unconformable on the Middle Jurassic Brent Group reservoir at 2390 m. The reservoir was hydrocarbon bearing. From the log, pressure gradient analyses, and FMT sampling the OWC was found at 2487 m, in the Rannoch Formation. Shows were recorded from 2 m above and to 2 m below the oil-bearing reservoir. Weak shows were also observed in the upper part of the Cook Formation.

Eight cores were cut in the well. One core was cut in the Shetland Group, from 1935 to 1953 m, for borehole stability studies. Seven cores were cut in the Brent Group and into the Dunlin Group (8.0 m), in the interval 2389 - 2522 m (driller's depth). The Brent core recovery was 130.8 m, i.e. 98%.

Four FMT segregated samples were taken in the Brent Group reservoir and the 1 gallon chambers sent to laboratory. Chamber STO 23 (2392 m) contained oil, while chamber STO 15 (2467.1 m) and chamber STO 24 (2486 m) contained small amounts of oil emulsified with water. Chamber STO 02 (2488 m) was filled with water contaminated with mud filtrate.

The well was suspended on 13 August 1990 for later re-entry and fulfilling of well objectives and testing. It is classified as an oil appraisal on the Vigdis Field.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/7-16