



Wellbore History

GENERAL

Exploration well 34/7-20 is located between the Snorre and the Statfjord Nord Field on Tampen Spur in the Northern North Sea. The well is positioned up-dip on a gently west-dipping structure that includes a supposed thin Late Jurassic sand interval. The primary objective was this Late Jurassic sand in a pinch-out trap. A secondary objective was to test the Brent Group, and if water-bearing, make a pressure test in order to evaluate possible communication to the Vigdis West Field.

OPERATIONS AND RESULTS

Wildcat well 34/7-20 was spudded with the semi-submersible installation Treasure Saga on 18 July 1992 and drilled to TD at 3177 m in the Late Triassic Lunde Formation. The 12 1/4" section was drilled with slow penetration rates, frequent wiper trips, and frequent change of drill bits. After a bit change, the new BHA went stuck at 2724 m while running in the hole, and had to be worked free with 110 tons overpull. The well was drilled with spud mud down to 419 m, with gel mud from 419 m to 1220 m, and with KCl mud from 1220 m to TD. Indications of shallow gas were seen at 557 -558 m and at 620 - 621 m.

Down to Base Cretaceous the well penetrated mainly claystones. An exception to this was the sandy Utsira Formation between 961 and 1040 m. The Jurassic interval comprised the prognosed Late Jurassic sandstone and Heather Formation, the Middle Jurassic Brent Group and the Early Jurassic Dunlin Group.

The top of the primary target Late Jurassic reservoir was penetrated at 2578 m, 7 meter shallower than prognosed. Only 3 meter of Late Jurassic sand was penetrated and proved water bearing with oil-shows. These were the only shows reported in the well.

Pressure tests in the Brent and Viking Groups in well 34/7-20 indicated communication between the sandstones of the Late Jurassic and Brent Groups. These sandstone units are probably in contact further up-dip, which is, most likely, the explanation to why the well was dry. The Brent Group pressure tests indicated, when compared to the tests from well 34/7-13, a communication within the Brent Group between the NW-Area and the Vigdis West Field. A relatively low pressure in well 34/7-20 indicated pressure depletion from the Statfjord Field. The pressure tests carried out in the Statfjord Formation were compared to the oil pressure tests in wells 34/7-7 and P-33 in the Snorre Field. The results of this comparison indicated a significantly deeper OWC in the Snorre Field than stated prior to the completion of well 34/7-20.

A total of 3 cores were cut from 2576 m in the lowermost Cromer Knoll Group down to 2637 m in the Ness Formation. An RFT segregated fluid sample was taken at 2579.5 m. The 2 3/4 gallon chamber contained 2 l water and filtrate with an oil film.

The well was permanently abandoned on 27 August 1992 as a dry well with shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/7-20