



Wellbore History

GENERAL

Well 30/11-7 was drilled on the eastern flank of the Central Viking Graben, NE of the Frigg Field in the North Sea. The main objectives were to prove gas condensate in the Fulla structure, establish the gas/water contact in the reservoir, and verify Brent Group reservoir quality. Further objectives were to verify reservoir pressure conditions and vertical communication in reservoir. The TD of the well was planned 50 m into the Drake Formation, or to 4068 m TVD RKB.

OPERATIONS AND RESULTS

Wildcat well 30/11-7 was spudded with the semi-submersible installation West Alpha on 12 November 2008 and drilled to TD at 4067 m in the Early Jurassic Drake Formation. No shallow gas was observed by the ROV or on the MWD while drilling the 36" or the 26" holes. Boulders gave slow penetration and heavy vibration between 250 to 300 m. In the 17 1/2" section from 1334 to 3014 m hard rocks, carbonate stringers and cemented sandstone stringers caused slow penetration and numerous bit changes. Intermediate wire line logging was performed at 2910 m while a leak in the top drive DDM was repaired. In the wire line logging at final TD the MDT tool got stuck and was left in the hole. The well was drilled with seawater and spud mud down to 1331 m and with Versatec oil based mud from 1331 m to TD.

The 30/11-7 well penetrated rocks of Quaternary, Tertiary, Cretaceous and Jurassic age. A 12 m thick Draupne Formation shale was encountered at 3722 m overlying a 219 m thick Heather Formation. The main prognosed reservoir sandstones of the Tarbert Formation were not encountered in the well. Top Brent Group, Ness Formation, was encountered at 3953 m. The well proved a lean gas-condensate in sandstones of the Ness Formation. The Gas-Water Contact is estimated to be at 3992 m, based on pressure results. Poor oil shows were observed on Early Cretaceous limestone cuttings from 3450 m to 3657 m. Good oil shows were observed in the middle part of the core from the Ness Formation.

One core was cut at 3983.0 to 3998.1 m in the Ness Formation. Water was sampled from the Etive Formation at 4008 m, and gas was sampled from the Ness Formation at 3985 m, and at 3986 m. The single probe (PS) was used for sampling water and the Quicksilver probe (PQ) were used for sampling gas. A mini DST by MDT dual packer MDT was performed at 3981.2 m in the Ness Formation, but the samples from this test was lost as the tool string got stuck and was left in the hole.

The well was permanently plugged back to the 14" casing, just above the 9 5/8" hanger and abandoned. A sidetrack was planned to be drilled by Transocean Leader.

The well was suspended on 3 February 2009 as a gas/condensate discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/11-7