



Wellbore History

GENERAL

Well 30/11-9 S was drilled on the Askja West prospect in the Fensal Sub-basin, about 35 km south of the Oseberg Sør installation in the North Sea. The primary objective was to prove petroleum in Late to Middle Jurassic reservoir rocks (lower part of the Heather Formation and the Tarbert Formation). The secondary exploration target was to prove petroleum in reservoir rocks in the Middle Jurassic (Ness and Etive formations).

OPERATIONS AND RESULTS

Wildcat well 30/11-9 S was spudded with the semi-submersible installation Ocean Vanguard on 22 September 2013. While drilling the 26" hole section, the accelerator twisted off and a part of the BHA was lost at 840 m. Several unsuccessful fishing attempts were made before it was decided to plug back and make a technical sidetrack. Sidetrack wellbore 30/11-9 ST2 was kicked off at 427 m and drilled to final TD at 3735 m in the Middle Jurassic Ness Formation. The sidetrack was drilled as an S shaped well. The deviated section, from 1470 to 3215 m, was drilled with a maximum angle of 21 degrees. The final 8 1/2" section was vertical. The first well bore was drilled with spud mud, while the 30/11-9 ST2 technical sidetrack was drilled with KCl/polymer from kick-off point to 1798 m and with XP-07 from 1798 m to TD. The content of the XP-07 base oil is C10 to C14 n-alkanes with traces of light adamantanes and light aromatics.

The top of the primary target reservoir was picked at 3269 m (3193 m TVD), 50 m shallower than prognosed. The whole reservoir was found to be Tarbert Formation including the top section, which pre-drill was prognosed to be Lower Heather Formation. Based on the fluid sampling, gas was found in two differently pressured compartments in the Tarbert Formation. The upper compartment had gas in a down-to situation, while the lower compartment had a gas/water contact at 3468.4 m (3392 m TVD). The secondary target, Ness Formation had acceptable reservoir properties, but it was water bearing. There were no oil shows (fluorescence) in the well.

No cores were cut in this well. MDT Fluid samples were taken at 3270.1 m (gas), 3411.2 m (gas), 3454.0 m (gas), and 3477.7 m (water).

The well was permanently abandoned on 13 November 2013 as a gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/11-9 S