

Wellbore History

GENERAL

Well 7019/1-1 was drilled in the central-western part of block 7019/1. The primary target of the well was to test the hydrocarbon potential of the Middle Jurassic through Upper Triassic Stø Formation sandstone of the Kapp Toscana Group. Lower Basal clastics of the Early Cretaceous Knurr Formation were a secondary target.

OPERATIONS AND RESULTS

Exploration well 7019/1-1 was spudded with the semi-submersible installation "Transocean Arctic" on 6 October 2000. The seabed soil/formation was found to be very hard with embedded boulders and drilling progress was slow. The rig was thus moved 10 m and the well was re-spudded and drilled to TD at 3003 m, 141 m into the Early Jurassic Tubåen Formation. The well was drilled with Seawater and High Viscous sweeps with pre-hydrated bentonite mud down to 665 m, and with Formate brine / XC Polymer / PAC from 665 m to TD. The reservoir of the Stø Formation was encountered at 2447 m and was found to be gas bearing. The Gas/Water contact was encountered at 2597 m. Shows were observed down to 2610 m. Poor shows were also noted through the Nordmela Formation and into the top of the Tubåen Formation to 2865 m. The Basal Clastics of the Knurr Formation were also found HC bearing at 2211 m with poor shows down to 2220 m. No HC/water contact was seen in this reservoir. Three cores were cut, one in the Knurr Formation, and two in the Stø Formation. Gas from the Lower Cretaceous reservoir was sampled with MDT at 2246 m. Gas samples from the Jurassic Stø formation were taken during the DST. The well was permanently abandoned as a gas discovery on 3 December 2000.

TESTING

A test was performed in the interval 2526 to 2563 m in the Stø Formation. The well flowed 606000 m3 gas per day (no liquid) from a 40/64 choke. Gas gravity was 1,133 (air = 1), CO2 content 60 - 70%, and H2S content 6 - 13 PPM. The test was stopped during the clean up phase due to the high CO2.