



Wellbore History

GENERAL

Well 6407/6-6 was drilled on the Gamma prospect on the eastern limits of the Halten Terrace, ca 5 km south-west of the Mikkjel field. The well 6407/6-6 was the first to be drilled in production license 312. The primary objective of the well was to prove hydrocarbons in the Middle Jurassic Garn and Ile Formations in the Fangst Group and to test all prospective formations down to Åre Formation. The secondary target was to understand the origin of a seismic flat event in the Ile Formation. Shallow gas has occurred in neighbouring wells, and a shallow gas warning was given pre-drill at 380 - 420 m

OPERATIONS AND RESULTS

Wildcat well 6407/6-6 was spudded with the semi-submersible installation Ocean Vanguard on 2 January 2008 and drilled to TD at 2508 m in the Early Jurassic Tilje Formation. A 9 7/8" pilot hole was drilled first, as a precaution against shallow gas. No shallow gas was observed. The rig was then skidded 13 m from the pilot hole for spudding of the main hole. No significant problems were encountered in the operations. The well was drilled with seawater and hi-vis pills down to 1060 m and with "Aquadriil" KCl/polymer/glycol mud from 1060 m to TD.

The well penetrated rocks of Quaternary, Tertiary, Cretaceous, and Jurassic age. The well penetrated the Garn reservoir section at 2110 m, 3 m deeper than prognosed. A hydrocarbon discovery was proven in both the Garn and Ile Formations. In Garn, there was a hydrocarbon contact (gas down to) at 2119 m, and in Ile a true gas-water contact was noted at 2233 m. Water was detected in the Ror and Tilje formations. Results from the MDT show the Garn formation to have a permeability of around 4138 mD with a porosity of 26%. The Ile formation shows a permeability of 713 mD with a porosity of 26 %. The Tilje Formation was penetrated at 2421.5 m, 20.5 m shallower than prognosed. No shows other than a weak petroleum odour and a weak milky white to bluish white fluorescence residue on the cores from the reservoirs were reported from the well.

Two conventional cores were cut; at 2115 - 2142 m in the Garn Formation and at 2204 - 2231 m in the Ile Formation. MDT fluid sampling and pressure points were taken in the Garn and Ile Formations. Fluid samples were taken at the following depths: 2117.1 m (gas), 2122.6 m (water), 2227.9 m (gas), and 2245.4 m (water). The samples were of good quality. Further pressure points were taken in the Ror and Tilje Formations. The pressure data showed several different pressure compartments in the Jurassic, with the Garn and Ile reservoirs in different compartments.

The well was permanently abandoned on 5 February 2008 as a gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6407/6-6