



Wellbore History

GENERAL

Well 6507/11-8 is located on the eastern part of the Halten Terrace, just north of the Midgard discovery. It was drilled on the Yttergryta structure with the primary objective to identify gas in Garn and Ile Formations. The secondary objective of well 6507/11-8 was to acquire data and test for possible hydrocarbons in the Tilje and Åre Formations.

OPERATIONS AND RESULTS

Well 6507/11-8 was spudded with the semi-submersible installation Stena Don on 31 May 2007 and drilled to TD at 2773 m in Early Jurassic sediments of the Åre Formation. Well 6507/11-8 was drilled with spud mud down to 366 m, with BARASILC KCl mud from 366 m to 1800 m, and with a KCL/polymer/glycol mud from 1800 m to TD. Shallow gas was predicted at 526 - 648 m, but no shallow gas was observed.

The lithology down to top Garn Formation at 2416 m was mainly claystone with no reservoir quality. The petrophysical evaluation showed high hydrocarbon saturation in the Garn and Ile Formations, and excellent reservoir quality with 28% porosity and up to 6 Darcy permeability. MDT pressure data showed that the reservoir was in a dynamic stage of depletion due to production from the Åsgard Field (Midgard discovery). A gas down-to situation was proven, and it is assumed that the original, pre-production contact has been common with the Midgard Field contact at 2515 m (2490 m TVD MSL). Apart from the gas in the target reservoir there were no significant hydrocarbon indications in the well.

Two cores were cut at 2427.3 to 2452.5 m in the Garn/Not Formations and at 2462 to 2505 m in the Ile Formation. MDT gas/condensate samples were taken at 2424 m (PVT analysis, single stage separation: condensate/gas ratio = 20740 Sm³/Sm³, condensate density = 0.792 g/cm³, gas gravity = 0.695) and at 2463 m (PVT analysis, single stage separation: condensate/gas ratio = 18000 Sm³/Sm³, condensate density = 0.789 g/cm³, gas gravity = 0.695). MDT water samples were taken at 2615 m. Extreme invasion profiles were visible from the resistivities, and there was concern this should affect the gas samples. However the samples proved of good quality.

The well was suspended on 3 July 2007 as a gas discovery. In 2008 it was completed as a gas producer.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/11-8