



Wellbore History

GENERAL

Well 6407/7-9 S was drilled to test the Njord North Flank 2 prospect about 6 km north of the producing Njord Field in the Norwegian Sea. The primary objective was to prove hydrocarbon potential in the Early-Middle Jurassic Tilje and Ile formations. The secondary objective was to test the hydrocarbon potential in the Åre Formation.

OPERATIONS AND RESULTS

Wildcat well 6407/7-9 S was spudded with the semi-submersible installation Songa Delta on 15 August 2016 and drilled to TD at 4143 m (4134 m TVD) m in the Early Jurassic Åre Formation. Drilling to TD proceeded without significant problems, but during P&A and preparing for sidetracking pulling of the 9 5/8" casing hanger caused severe problems and four days NPT. The well was drilled with seawater and hi-vis pills down to 1175 m and with XP07 oil based mud from 1175 m to TD.

Top of the primary reservoir targets, the Ile Formation was reached at 3623 m (3614.8 m TVD). A 102-metre oil column was encountered in the Ile formation, and a 157-metre gas/condensate column in the Tilje Formation. The reservoir properties in both reservoirs are poor to moderate. The well did not encounter a reservoir in the Åre formation. A few thin sand layers were encountered in the Early Cretaceous Lange formation, some with petroleum, but with poor reservoir properties. An oil-water contact in the Ile Formation at 3727 m (3719 m TVD) was established based on logs and sampling. Otherwise, all hydrocarbon columns were in oil down-to situations. No shows were observed outside of the hydrocarbon-bearing reservoirs

Two cores were cut. Ile was cored from 3636 to 3690 m with 100% recovery. Tilje was cored from 3901 to 4010 m with 100% recovery. MDT fluid samples were taken in the Ile Formation at 3641.8 m (oil), 3725.4 m (oil), 3729 m (water), and in the Tilje Formation at 3916 m (gas condensate) and at 4017.2 m (gas condensate). Isotubes to collect further gas, including in the Lange Formation, proved to contain only air and no formation gas.

The wellbore was plugged back for sidetracking on 20 September 2016. It is classified as an oil/gas/condensate discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6407/7-9 S