



Wellbore History

GENERAL

Well 6605/8-2 was drilled in 818 m water depth ca 6 km south-south west of the Stetind discovery well 6605/8-1 in the Vøring Basin of the Norwegian Sea. The main objective of the well was to prove and test hydrocarbons with focus on reservoir and production properties. The main target was sandstone of the Lysing Formation, estimated to be up to 70 m thick with significantly improved reservoir quality compared to the 6605/8-1 well. The well was drilled up-flank of the first well, with the aim to find improved reservoir quality. The well was the second exploration well to be drilled on the Stetind prospect.

OPERATIONS AND RESULTS

Wildcat well 6605/8-2 was spudded with the semi-submersible installation Transocean Leader on 11 May 2008 and drilled to TD at 4210 m (4196 m TVD) in Late Turonian sediments of the Lange Formation. A 9 7/8" pilot hole was drilled to 2017.0 m in order to check for shallow gas or shallow water flow. Neither shallow gas nor shallow water flow was observed. No serious problems were experienced in the operations, but some deviation around 3000 m led to a slight difference between MD and TVD (14 m at TD). Further, the MDT tool got stuck after a mini DST. The well was drilled with seawater and hi-vis sweeps down to 1290 m, with seawater/hi-vis sweeps/Glydril mud from 1290 m to 2850 m, and with oil based Paratec mud from 2850 m to TD.

The well penetrated rocks of Quaternary, Tertiary and Cretaceous age. The sandstones of the Lysing Formation had a gross thickness of 39 m; net to gross is 50%, total porosity 15% and water saturation 90%. The reservoir was thinner and of poorer quality than prognosed. The prognosed up-dip improvement in reservoir quality compared to the Stetind-1 well was not proved.

Oil shows were as follows: Cut fluorescence with a faint petroleum odour was recorded at 2469 - 2505 m; good direct and cut fluorescence, and residual fluorescence was recorded at 2870 - 2874 m; rare traces of weak direct fluorescence were recorded at 3884 - 3893 m; and direct patchy (20%) fluorescence, no cut, was recorded at 3921 - 3922 m. fluorescence.

Three conventional cores were cut from 3893 to 3942 m in the Lysing Formation. MDT fluid samples were taken at 3897.5 m during a mini-DST. Due to sticking and fortunately successful fishing of the tool, the mini-DST gave the temperature readings with longest time since circulations, 96 hours or more (time before the MDT was fished out). This temperature was 135 deg C, measured at 3884.6 m TVD RKB, giving a gradient of 44.9 deg C/km, assuming -1.5 deg C at sea floor.

The well was permanently abandoned on 10 July 2008 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6605/8-2