



Wellbore History

GENERAL

Well 6604/5-1 was drilled to test the Balderbrå prospect in the Vøring Basin of the Norwegian Sea. The primary objective was to prove reservoir presence and hydrocarbon accumulations in Springar Sandstone intervals. TD was planned to be 150 m below the base of the deepest Springar Sandstone. In case of a discovery a technical side-track was planned to obtain cores from the reservoir.

OPERATIONS AND RESULTS

A pilot hole 6604/5-U-1 was drilled 50 m away from the mainbore location in a 12 1/4" hole in order to identify the correct setting depth for the 20" x 13-3/8" casing below the ooze.

Wildcat well 6604/5-1 was spudded with the semi-submersible installation West Phoenix on 10 January 2018 and drilled to TD at 3858 m in the Late Cretaceous Springar Formation. Gas was discovered, and the well was side-tracked at 3308 m to obtain cores from the hydrocarbn-bearing sandstones. The side-track reached TD at 3760 m in the Late Cretaceous Springar Formation. During P&A in the mainbore a leak in the slip joint between the gator lock and inner barrel was discovered. This led to a 10 days repair period before normal operations were resumed. The well was drilled with seawater and hi-vis pills down to 2375 m and with Innovert oil-based mud from 2382 m to TD. Innovert OBM was used also in the side-track.

Three Springar was encountered at 3259 m. Intra-Springar sands were penetrated with tops in the mainbore at 3336 m, 3453 m, and 3582.5 m. In the side-track the sands were penetrated 1 – 2 m MD deeper. All three sands were gas filled with gas-down to contacts. Pressure measurements showed that the three sandstones have different pressure regimes. Weak, light-coloured shows were described in the two upper Springar sandstones, otherwise no oil shows were recorded in the well.

Two cores were cut in the two lower and thickest Springar sandstones in the side-track. Core one was cut from 3450 to 3504 m with 101% recovery. The core-log depth shift for this core is 2.42 m. Core two was cut from 3579 to 3634 m with 102% recovery. The core-log depth shift for this core is 3.90 m. MDT gas samples were taken at 3339.7 m, 3457.7 m, and 3592.7 m.

The well was permanently abandoned on 22 March 2018 as a gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6604/5-1