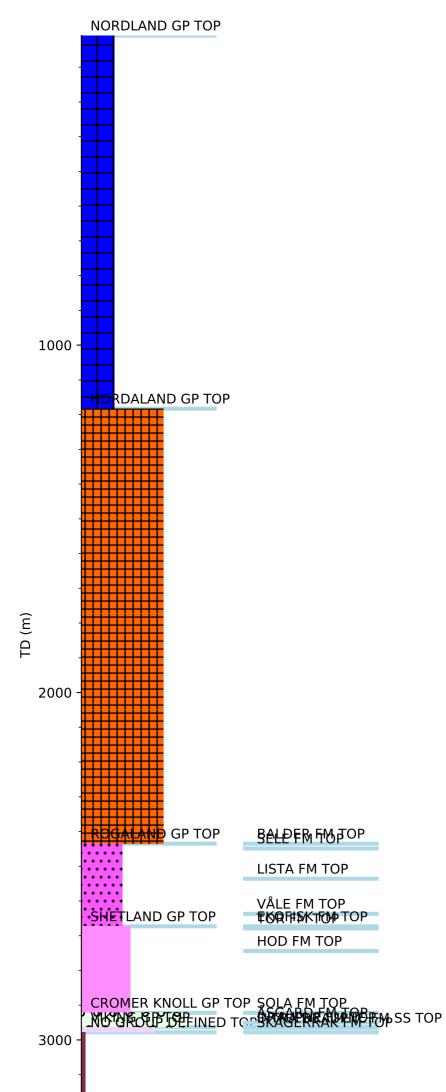


Wellbore History



GENERAL

Wildcat well 6/3-1 was drilled on the Pi-structure in the northwestern part of the block. The well is situated less than 1 km from the UK-Norwegian median line, where the UK Drake Field, an oil/gas field in UK block 2215was discovered close to the median line. Well 6/3-1 was designed to test possible hydrocarbon accumulations at different levels. The main target was Jurassic and Triassic sandstones. Secondary targets were Paleocene sandstones (Heimdal Formation), and Late Cretaceous porous/fractured chalk.

OPERATIONS AND RESULTS

The well was spudded with the semi-submersible installation Deepsea Bergen 2 November 1984 and drilled to TD at 3560 m in the Triassic Skagerrak Formation. Drilling of the well proceeded without significant problems, but five and a half rig days were spent waiting on weather. The well was drilled with gel/seawater to 520 m, with gypsum/polymer from 520 m to 2926 m, and with lignite/lignosulphonate from 2926 m to TD.

Target reservoir sandstones of Jurassic/Triassic age came in at 2965 m with oil and gas/condensate. A hydrocarbon column of 72 m was proven with oil/water contact at 3037 m. FMT gradients and oil stain on cores indicated a GOC at 3013 m. Secondary target sand (Heimdal Formation) was not found. Logs and shows indicated hydrocarbons in Late Cretaceous chalk/limestone, most strongly from 2900 m to 2925 m, but test of this interval was negative. FMT pressure measurements in the larger interval from 2804 m to 2918.5 m in the chalk were all unsuccessful and showed a tight formation. Eight cores were cut in the well from 2968 m to 3116.5 m. Segregated FMT samples were taken at 3021.5 m (0.87 g/cm3-oil and gas), at 3007.5 m (0.780 g/cm3-condensate, gas, and mud filtrate), at 3016 m (oil, mud filtrate, and gas), at 2992 m (0.77 g/cm3-condensate, mud filtrate, and gas), at 2966 m (0.77 g/cm3-condensate, mud filtrate, and gas).

The well was permanently abandoned as an oil and gas discovery on 2 January 1985.

TESTING

Three Drill Stem Tests were performed. DST 1 at 3015 m to 3023 m produced 907.5 m3 oil/day and 140 700 Sm3 gas/day on a 64/64" choke and wellhead pressure equal to 51.7 bar. CO2 content in the gas was 2.2 % and H2S content was 1.1 ppm. DST 2 at 2978 m to 2993 m produced 409.4 m3 oil/day and 889 900 Sm3 gas/day on a 72/64" choke and wellhead pressure equal to 95.8 bar. CO2 content in the gas was 2.0 % and H2S content was 2.0 ppm. DST 3 at 2902-2921 m was opened up on a 12/64" choke. It gave no response from the well. Acid was pumped to stimulate flow, but only 2.6 m3 diesel cushion was produced before the well died. Mud with traces of oil was recovered when reversing out the string volume above the circulating valve.