



Wellbore History

GENERAL

The 16/6-1 ("ODIN 1") is located on the Utsira High in the North Sea. The well was positioned crestally on the southern tip of a big, seismically defined, horst feature. This horst, trending N-S and sharply limited by faults on west, east and south sides, has induced a vast anticline in his Mesozoic and Tertiary overburden. The well was programmed to investigate the sedimentary section down to pre-Permian formations.

OPERATIONS AND RESULTS

Wildcat well 16/6-1 was spudded with semi-submersible installation Ocean Viking on 7 November 1967 and drilled to TD at 2061 m in basement rock. The well was drilled with seawater down to 360 m, and with a seawater / Q'Broxin / CMC type mud from 360 m to TD.

Gas shows (C1) were observed with a GAL 21 type chromatograph while drilling the Tertiary series, mainly in the upper part with a maximum of 12 % at 630 m, decreasing to 2-3 % below 790 m. In the Cretaceous, no gas was seen and only a very small show (0.02 % α was recorded at the top of Jurassic shale. In the Utsira Formation 28 m net sand was encountered. The sands had high porosities, but were water wet. From 2019 m to 2050.5 m a very rich Draupne source rock shale with 6 % to 7 % TOC was penetrated. The sequence is immature in the well position. At 2050.5 m 4.5 m of lithic sand was found directly overlying basement. The sand is probably a basement "wash" which reflects the transition from an erosive stage to a depositional one. The lower 4 m of this sand had very good porosities (>32%) but were also water saturated. Permian and Triassic objectives were not present in the well. One core was cut in basement from 2057 to 2060.5 m (TD) with 100 % recovery. Two series of log-operations were run at 1362 m and 2060.5 m. Trouble occurred with gumbo type clay bridging the hole during the first operations and three cleaning trips were necessary. No fluid samples were attempted. The well was permanently abandoned as a dry well on 19 January 1968.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/6-1