



Wellbore History

GENERAL

Well 2/7-2 was drilled on the Grensen Nose structural element in the Central Graben of the North Sea. The primary targets for the well were Paleocene Sands and Danian Limestones; the secondary targets were Late Cretaceous carbonates, Early Cretaceous sandstones, Jurassic sandstones, and possibly Permo-Triassic sandstone reservoirs.

OPERATIONS AND RESULTS

Well 2/7-2 was spudded with the semi-submersible installation Ocean Viking on 13 December 1970 and drilled to TD at 3964 m in the Early Permian Rotliegend Group. No significant technical problem was encountered in the operations

The well was drilled with sea water and viscous slugs down to 594 m and with sea water, lignosulphonate, and 2 - 7 % oil from 594 m to TD.

The well encountered the Late Paleocene Balder Formation at 2856 m, top Ekofisk Formation at 2966 m, and top Tor Formation at 3005 m. The Jurassic was encountered at 3862 m and consisted of 13 m Mandal Formation. Total organic carbon content in the Mandal Formation was 7-9 %, estimated to be of middle oil window maturity (vitrinite reflectance ca 0.75). The Mandal Formation rested directly on sandstones of the Rotliegend Group. Good oil shows decreasing to no shows were observed on cores 1 and 2 (3013.9 to 3027.9 m) in the Tor Formation. Otherwise no significant shows or other hydrocarbon indications were reported from the well.

Three cores wore cut with 100% recovery. Cores 1 and 2 were cut from 3013.9 to 3027.9 m, while core 3 was cut in basaltic rock at TD from 3955.1 to 3963.6 m. No wire line pressures or fluid samples were taken.

The well was permanently abandoned on 2 March 1971 as a minor oil discovery.

TESTING

One DST through perforations of the 9 5/8 inch casing was carried out with the following results:

DST No. 1 perforated 4 shots per foot in the interval 3005.3 - 3017.5 m in the uppermost Tor Formation. The test flowed 6.83 m3 load water + 0.68 sm3 oil of 35.4 deg API gravity through a 1 inch choke. After acidization it flowed 54.6 Sm3 oil of 35.6 deg API gravity + 44.7 m3 formation water (35000 ppm chloride) and 4814 Sm3 gas through a 1 inch choke. The GOR was 88 Sm3/Sm3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/7-2