



Wellbore History

GENERAL

Exploration well 25/1-4 was located on a lower Eocene structure straddling the 25/1 and 30/10 blocks limit, north-east of the main Frigg Field. It was drilled to explore additional gas reserves in the Frigg area. A "Bright spot" phenomenon interpreted as a gas/oil or water table is clearly visible on all the seismic sections crossing the structure. Possible Danian and Maastrichtian reservoirs were considered secondary objectives.

OPERATIONS AND RESULTS

Well 25/1-4 was spudded with the semi-submersible installation Deepsea Driller on 1 April 1974 and drilled to TD at 2795 m in Maastrichtian marls.

The top of the Eocene reservoir (Frigg Formation) at 1967.8 was detected by C1 traces (maximum 3%). Based on shows on cores and electrical logs gas/oil and oil/water contacts were found at 2005.6 m and 2009 m, respectively. The contacts were not the same as on the Frigg Field, implying that this discovery was not in communication with the main Frigg Field. Background gas was weak to nil below 2010 and cuttings or sidewall cores below this depth showed no direct fluorescence or cut. Paleocene was penetrated at 2058 m with well-developed sand bodies as is usual in the area. Hence, the Paleocene contained 190 m net sands of which 25 m consisted of calcareous sandstone and 90 m of shaly sands. All Paleocene sands were water wet. In the Maastrichtian chalk some gas shows were recorded on the section 2757 m to 2763 m. Some hydrocarbon saturation was inferred by logs, but an FIT at 2760 m recovered 2.750 l of mud with only oil traces after a 25 minutes flow period.

Coring started at 1922 m, 45.8 m above the Eocene sands. Eight conventional cores were cut from this point down to 2028 m. Two wire line tests were conducted in the oil-bearing zone at 2006.5 m and 2007.5 m. The latter recovered 5.15 l of oil and 4.75 l of mud filtrate.

The well was permanently abandoned on 30 May 1974 as an oil and gas discovery.

TESTING

One drill stem test was carried out through the 7" liner in the Eocene gas zone (perforations at 1991.20 m to 1995.8 m, 1983.20 m to 1987.2, and 1969.7 m to 1974.3 m). Gas flow was stabilized around 610000 m3/day on 3/4" choke (with 5.04 Sm3 associated condensate/day) and 831400 m3/day on a 1" choke (5.04 Sm3 associated condensate/day).

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/1-4