



Wellbore History

GENERAL

Block 34/2 lies at the very northern end of the Tampen Spur and is located at the convergence of pre-Cretaceous Highs trending through Block 34/4 from Brent/Statfjord, from Dunlin/Murchison, from the 34/10 area and from a similar high trend through Block 34/5 from Block 34/8. The block was awarded in License 56 in 1979. The first well in the License (34/2-1) was spudded on 29 December 1979 and junked and abandoned on 19 February 1980 at 850 m, due to technical problems. As the first well did not satisfy License commitments, it was agreed among the partners that Well 34/2-2 would be drilled at the same location with the same objectives. This well was drilled to 4074 m and plugged and abandoned after having found poor reservoir conditions and no hydrocarbon accumulations. Well 34/2-3 was drilled 3.25 km to the northwest of Well 34/2-2 on the northern end of the Tampen Spur. The main objective was to test the sedimentary section below the Base Cretaceous Unconformity in a seismically defined northeasterly trending horst block.

OPERATIONS AND RESULTS

The well was spudded with the semi-submersible installation SEDCO 703 on 15 May 1981. Due to boulder beds at the location the first 36-inch interval was unsuccessful. The well was respudded on 17 May 1981 and drilled to TD at 3742 m in the Late Triassic Lunde Formation. The well was drilled with spud mud down to 815 m, with gypsum/lignosulphonate from 815 m to 3340 m, and with gel/chemtrol/lignosulphonate from 3340 m to TD.

While drilling between 820 m and 890 m shallow gas was encountered, giving readings of up to 7% total gas. However, this caused no drilling problems.

The well penetrated Tertiary and Cretaceous sediments down to the Barremian Rødby Formation, which was found unconformably overlying Late Triassic Lunde Formation. No significant reservoir zones were encountered above Top Trias. The Lunde Formation consisted of interbedded shales, siltstones, sandstones, and some thin conglomerate beds with the best reservoir properties in the upper section from 3351 m to 3396 m. Apart from the shallow gas there were no significant gas shows until 2335 m to 2440 m where background total gas readings of 1.8% were noted, C1 through to C3 being present. A maximum of 3.4% total gas was recorded at 2370 m. Trace to minor oil shows were recorded sporadically in limestone stringers and sandstones from 2190 m down to 3300 m. From 3300 m to 3370 m oil shows were noted in sandstone, siltstone and limestone throughout the section. At 3360 m, following a drilling break, a small flow into the well was detected. A soft shut in was initiated utilizing the annular bop. Shut in drill pipe and casing pressures indicated a formation pore pressure of 14.6 ppg EMW. The well kick was killed with 15.0 ppg mud. The bottoms-up sample was collected which appeared to contain traces of hydrocarbons. Following the drill break at 3360 m three consecutive cores were cut in the Triassic Hegre Group from 3360.5 m to 3405 m. The core barrel from the first core also contained some oil. Good oil shows were recorded in the most permeable sandstones throughout the cored section and oil bleeding was observed from sandstone and fractures. Wire line logs were run before and after setting the 13 3/8" and 9 5/8" casing and in the 8 1/2" open hole. RFT fluid samples were taken at depths 3354.2 m, 3373 m, 3374.3 m, and 3381.5 m. No hydrocarbons were recovered in any of the samples, only mud filtrate and water.

The well was plugged and abandoned as a dry hole with shows on 13 August 1981.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/2-3