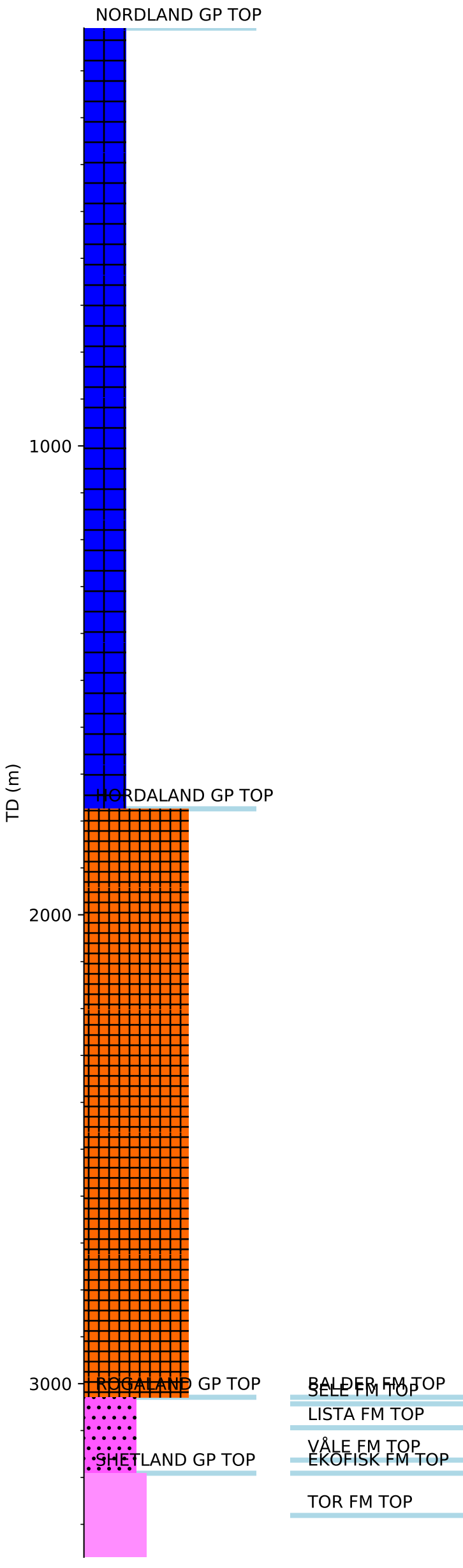
Groups

Formation Tops



Wellbore History

GENERAL

Well 2/7-10 was drilled on the Edda structure in the southern North Sea. The principal zone of interest was the Danian Limestone, which was found hydrocarbon-bearing ca 13 km to the northeast on the Ekofisk field, and which held commercial quantities of oil and gas in the 2/7-4 well on the Edda structure just over a mile to the southeast. The Danian sequence was expected to be ca 90 m thick. The Late Cretaceous was a secondary objective and could contain hydrocarbons if porosity was present.

OPERATIONS AND RESULTS

Well 2/7-10 was spudded with the jack-up installation Zapata Nordic on 6 October 1973 and drilled to TD at 3370 m in the Late Cretaceous Tor Formation. Bad weather caused some technical problems and delayed operations for some days. The well was drilled water based, but with 3-4 % addition of oil below 2691 m. The Danian limestone sequence (Ekofisk Formation) was encountered at 3191 m. It was 90 m thick as prognosed but with only 6 m of gross pay, which, after acidization, yielded nothing commercial. The equivalent interval in the 2/7-4 well produced commercial oil and gas on the deepest of three drill stem tests. The Late Cretaceous Tor Formation, however, was found to have 31 m of potential pay, which correlates well with the 2/7-4 interval. It flowed commercial amounts of oil and gas after acid, on two drill stem tests. The upper one of these compared well with the equivalent horizon in the 2/7-4, although less productive. Shows were recorded from top of the Ekofisk and all through the limestone/chalk section down to ca 3338 m in the Tor Formation.

No cores were cut and no wire line fluid samples taken in the 2/7-10 well

The well was permanently abandoned on 5 December 1973 as an oil appraisal.

TESTING

Five successful DST's were carried out in the well. Maximum flow data after acidization follows: DST 1 from the interval 3313 - 3322 m (Tor Formation) produced 233 m3 water, 12.2 Sm3 oil, and 32300 Sm3 gas /day. DST 3 from 3289 - 3301 m (Tor Formation) produced 715 Sm3 oil and 132500 Sm3 gas /day. The GOR was 185 Sm3/Sm3 and the oil gravity was 40.6 deg API. DST 5 from 3245 - 3261 (Ekofisk Formation) m produced on average 22 m3 water/day. It stopped flowing after 6 hours. DST 6 from 3219 - 3237 m (Ekofisk Formation) produced a total of 5.4 M3 water. DST 7 from 3203 - 3210 m ((Ekofisk Formation) gave a weak flow of water with traces of oil. DST 2 and DST 4 from 3289 - 3301 m were mis-runs.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/7-10