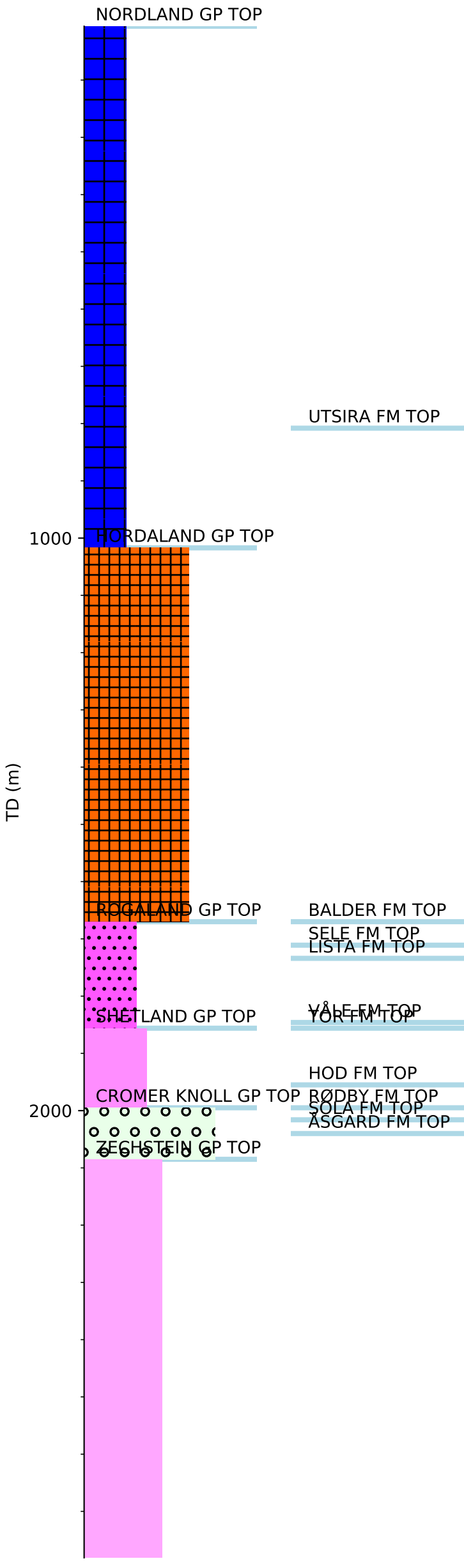
Groups

Formation Tops



Wellbore History

GENERAL

Wildcat well 16/7-1 is located in the Ling Depression between the Utsira High and the Danish Norwegian Basin. The main objectives were to test the hydrocarbon potential of the sedimentary section and to investigate the lithology and sequence in this portion of the North Sea basin.

OPERATIONS AND RESULTS

Well 16/7-1 was spudded with the semi-submersible installation Ocean Traveller on 11 August 1967 and drilled to TD at 2781 m in salt of the Late Permian Zechstein Group. Initial drilling from the sea floor to 381 m was with seawater and gel without casing. Returns were to the sea floor. Below 381 m to a depth of 2150 m, a Spersene XP-20 Lignosulphonate mud with 3% to 8% diesel oil was used. From 2150 m to TD, the mud system contained salt saturated Spersene XP-20 Lignosulphonate mud with 5% to 9% diesel oil.

After cementing the 30-inch casing at 131 m, the well was drilled to 213 m. On pulling out of the hole, it was found that the guide structure had sunk 5 m into the seabed or 2.5 m below the mud line. The ocean floor structures were retrieved and the platform was moved 30 m southwest and the well was re-spudded. The 30-inch casing was again cemented at 131 m. No abnormal drilling problems were encountered until a depth of 2150 m was reached. At this depth, high chloride and high viscosity mud indicated that salt had been encountered. The Continuous Dipmeter indicated that there was excessive natural deviation probably due to contorted bedding in the salt section. Deviation below 2225 m was calculated to increase at the rate of 1° per 15 m to a depth of 2637 m where the deviation was 27°. Extrapolating this deviation resulted in a deviation of 36° at TD. The direction of deviation at TD was 583° E. While drilling salt at 2780 m pipe stuck, and when attempting to pull free collars parted. Plug was set, and tagged at 2644 m. The hole was then logged. To avoid bad dog leg another plug was set and tagged at 2210 m. While attempting to sidetrack pipe again stuck and parted. It was then decided to abandon the hole. The pre-Zechstein section was thus not penetrated.

The well penetrated Top Cretaceous at 1856 m and top of the Late Permian Zechstein Group at 2085 m. The Jurassic and Triassic were not present. No shows were encountered in any part of well 16/7-1. One conventional core was cut from 1793 m to 1809 m in the Lista Formation. Sidewall cores were not taken. No fluid samples were taken. The well was permanently abandoned as a dry hole on 24 September 1967.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/7-1