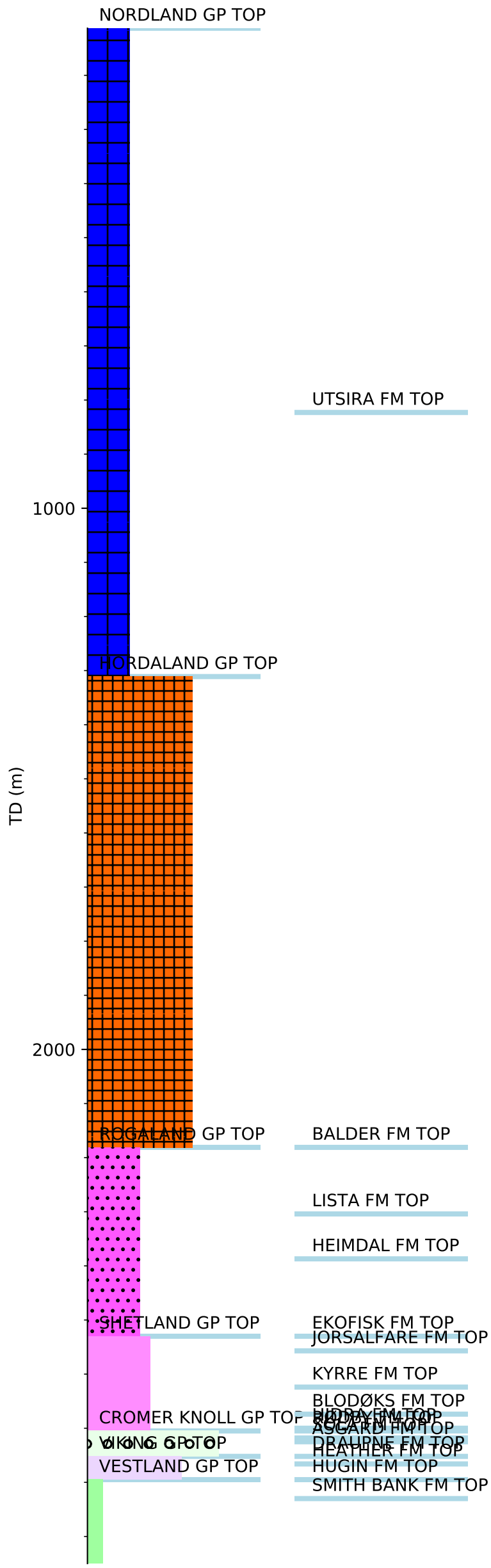

Wellbore History

GENERAL

Well 15/11-9 was drilled to appraise the 15/9-9 Sleipner Øst discovery in the south Viking Graben area of the North Sea.

The primary objective was to delineate the hydrocarbon accumulation found in the Heimdal Formation of the 15/9-Gamma structure. The secondary objective was to test for possible hydrocarbons in Triassic sandstones.

The well is Reference well for the Lista Formation, the Meile Member, and the Heimdal Formation

OPERATIONS AND RESULTS

Appraisal well 15/9-11 was spudded with the semi-submersible installation Ross Rig on 18 September 1981 and drilled to TD at 2950 m in the Triassic Hegre Group. A total of 99 days including a strike was spent on this well. Apart from the strike, which amounted to 22 days of lost operation, there were no severe problems during drilling and testing operations. The well was drilled with sea water and bentonite down to 585 m and with gel/lignosulphonate/seawater mud from 585 m to TD.

The well proved gas and condensate in Heimdal formation and verified thereby the results from the 15/9-9 well. The gas- water contact was found at 2442 m. Hydrocarbons were found also in the Jurassic Hugin Formation sandstones with a gas-water contact at 2825 m. The TD for the well was then extended from 2650 to 2950 m. No hydrocarbons were found in Triassic sandstones

Eleven cores were cut in the well. Cores 1 and 2 were cut from 2364 to 2379 m in the Lista Formation. Cores 3 to 11 were cut from 2395 to 2514 m in the Heimdal Formation. The RFT tool was run on wire line and the pressure data supported communication with the 15/9-9 discovery well within the Heimdal Formation, while the Hugin Formation was in a separate pressure regime. Segregated fluid samples were taken at 2387.5 m, in the Heimdal Formation, and at 2812 and 2825.8to 2826.5 m in the Hugin Formation.

The well was permanently abandoned on 23 December 1981 as a gas/condensate appraisal well.

TESTING

Three DST was performed. DST 1 tested the Hugin Formation sandstone from 2789.5 - 2830 m. It produced 566000 Sm3 gas and 243 Sm3 condensate / day through a 15.9 mm choke. The condensate density was 0.75 g/cm3 and the gas gravity was 0.74 (air = 1) with 0.5 - 1% CO2. The maximum down hole temperature measured in the test was 103.9 deg C.

DST 2 tested the Heimdal Formation sandstone in the interval 2432 - 2440 m. It produced 233785 Sm3 gas, 104 Sm3 condensate and 1085 m3 water/ day through a 12.7 mm choke. The oil density was 0.75 g/cm3 and the gas gravity was 0.72 (air = 1) with 0.1 - 0.5% CO2. The maximum down hole temperature measured in the test was 93.3 deg C.

DST 3 tested the Heimdal Formation sandstone in the interval 2395 - 2415 m. It produced 570867 Sm3 gas and 266 Sm3 condensate / day through a 19.1 mm choke. The oil density was 0.75 g/cm3 and the gas gravity was 0.734 (air = 1) with 0.1 - 0.5% CO2. The maximum down hole temperature measured in the test was 92.2 deg C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/9-11