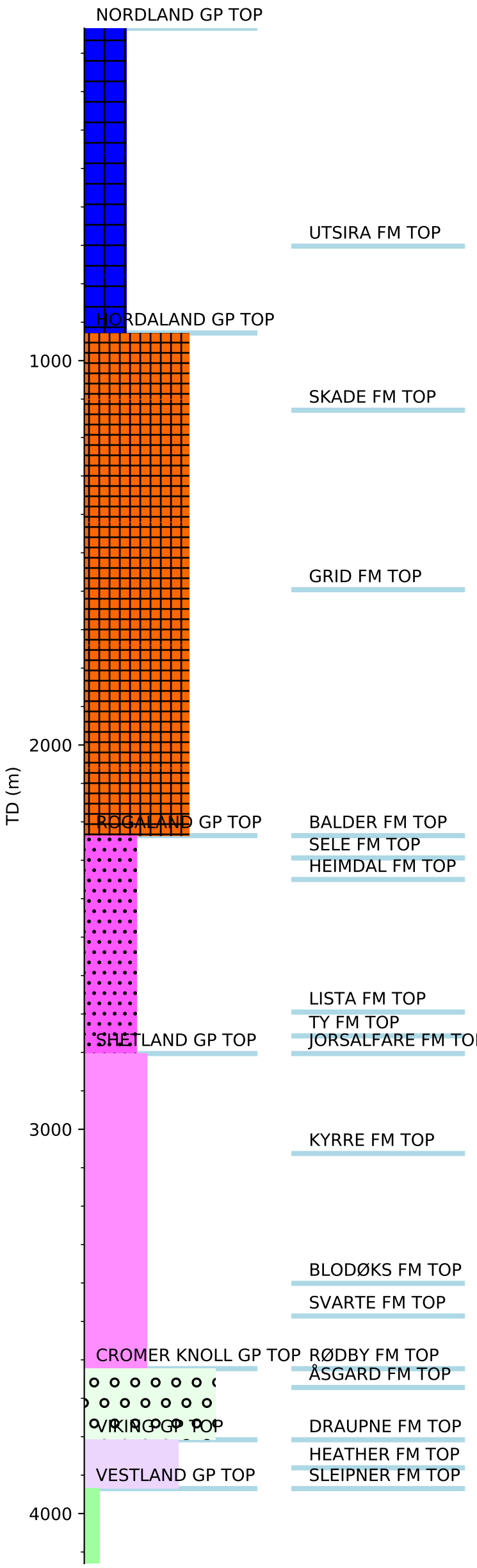

Wellbore History

GENERAL

Well 15/3-5 was drilled on the Gudrun Terrace, east of the 15/3-1 S Gudrun Discovery in the North Sea. Well 15/3-5 was drilled in a downdip position of a structure explored by the well 15/3-4, where oil bearing reservoirs of Middle Jurassic age were tested. The main objectives of 15/3-5 were to find the extension of these reservoirs and to define a hydrocarbon/water contact.

OPERATIONS AND RESULTS

Appraisal well 15/3-5 was spudded with the semi-submersible installation Byford Dolphin on 28 December 1983 and drilled to TD at 4130 m in the Middle Jurassic Sleipner Formation. Drilling was suspended at 195 m due to bad weather. The well was re-spudded on 6 January 25 m west of the original location. Some technical problems with the BOP occurred after setting of the 20" and 13 3/8" casings. A seat protector got stuck in the riser during drilling of the 17 1/2" hole. Drilling breaks occurred at 3943 m, 3954 m, 4018 m, 4032 m and at 4041 4043 m in the 8 1/2" hole section. The well was drilled using water based mud.

Top Draupne Formation was encountered at 3808 m, followed by the Heather Formation at 3881 m, and the target Middle Jurassic Sleipner Formation at 3935 m. Several thin reservoir zones were penetrated in the Sleipner Formation. The sands were interpreted as minor fluvial channels (2 to 5m in thickness) deposited in two main sequences. Four of the channels were oil-bearing with an oil gradient of 0.61 bar/10 m based on pressure measurements. An OWC could be established at 4022.6 m. Pressure measurements showed that the upper fluvial channel sequence is over-pressured, and not in contact with the sands encountered in well 15/3-4. The lower fluvial sequence could be connected between the two wells. Petrophysical evaluation of the whole system gave a net pay of 6.7 m.

In the Quaternary, Tertiary and Cretaceous series no fluorescence due to hydrocarbons were observed. In the Upper Jurassic sequence, a weak yellow colour in direct fluorescence light was observed on sandstone pieces. A pale to clear yellow and orange colour in direct fluorescence light was reported from the Middle Jurassic sequence down to about 4060m. Below 4060 m to TD nil to very weak direct fluorescence was observed.

Three cores were cut in the Sleipner Formation. Cores 1 and 2 were cut from 3971 to 4003 m (3973.6 to 4005.6 m logger's depth) with 98 % and 84% recovery, respectively. Core 3 was cut from 4020 to 4029 m (4023.9 to 4032.9 m logger's depth) with 94% recovery. RFT wire line fluid samples were taken at 3969.9 m (gas + mud filtrate), 3984 m (gas + mud filtrate), 4022.2 m (minor gas + mud filtrate), and 4028.5 m (trace gas + mud filtrate),

The well was permanently abandoned on 13 May 1984 as an oil appraisal.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/3-5