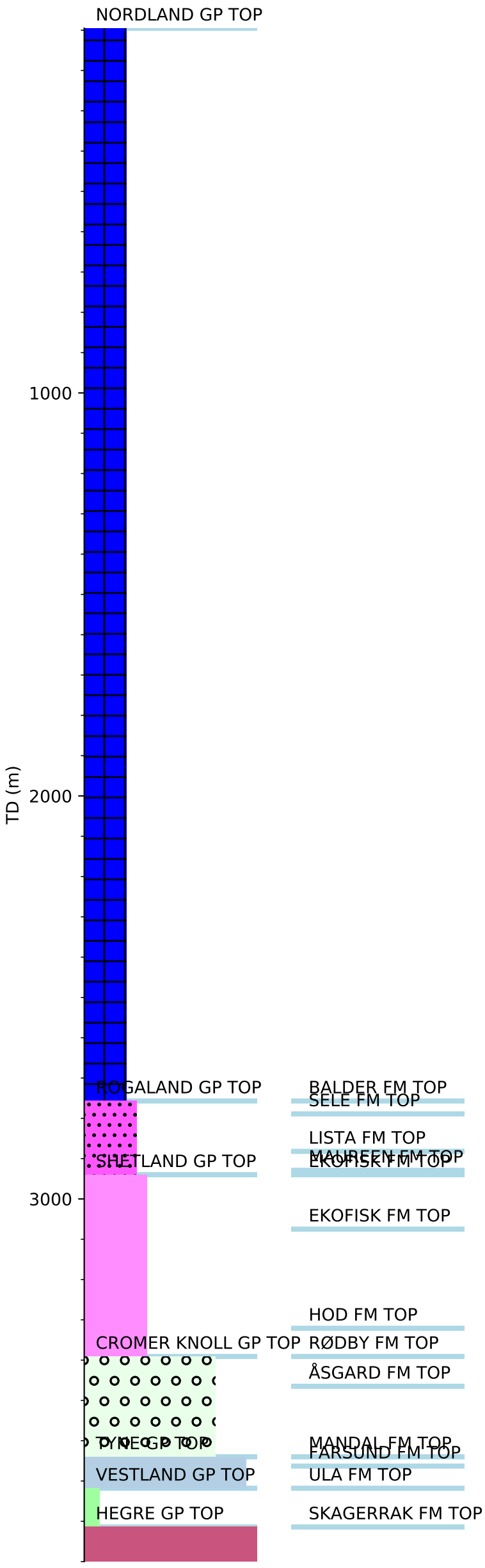
Groups

Formation Tops



Wellbore History

GENERAL

Well 7/12-8 was drilled on the south eastern flank of the Ula Field in the North Sea. The well was drilled to evaluate the reservoir potential of the south eastern sector of the Field and to assist target future water injection wells. To enable a full evaluation of the reservoir the lower Ula Formation and the underlying Triassic section were penetrated.

OPERATIONS AND RESULTS

Appraisal well 7/12-8 was spudded with the semi-submersible installation Vildkat Explorer on 3 October 1988 and drilled to TD at 3900 m in the Triassic Skagerrak Formation. Drilling down to top reservoir proceeded without any significant problems. The well was drilled with seawater and bentonite down to 167 m, with seawater/bentonite/spercell/CMC EHV mud from 167 to 955 m, with KCl/polymer mud from 955 m to 3721 m, and with oil based Safemul mud from 3721 m to TD.

Top Mandal Formation was encountered at 3640 m, top Farsund Formation at 3663 m, and top Ula Formation at 3718 m, 78 m higher than prognosed. RFT measurements showed a pressure barrier at ca 3770 m. There was oil down to the barrier and water below. An effective oil/water contact was difficult to identify. The saturation profile across interval 3770 - 3796 is interpreted as water influx from the aquifer following production from the field since 1986. The RFT results supported that the Ula reservoir at the 7/12-8 location was depleted and in pressure communication with the crestal producing part of the Ula Field. There were no signs of hydrocarbons in the underlying Triassic.

One core was cut in the Ula Formation from 3724.0 to 3750.5 m. Segregated RFT fluid samples were taken at 3772 m (water and oil) and 3808.5 m (water and OBM).

The well was suspended on 23 December 1988 as an oil appraisal.

TESTING

One Drill Stem Test was performed in the Ula Formation in the interval 3719 to 3756 m flowed 274 Sm3/d of oil and 21800 Sm3/d of gas through a 254 mm choke. The GOR was 79 Sm3/Sm3. Maximum H2S and CO2 was 0 ppm and 2.5 %vol, respectively. Final BHT was 146.1 deg C. Two water injection tests followed the production test, the first over interval 3719 m to 3756 m and the second overt the interval 3719 to 3783 m.

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LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7/12-8