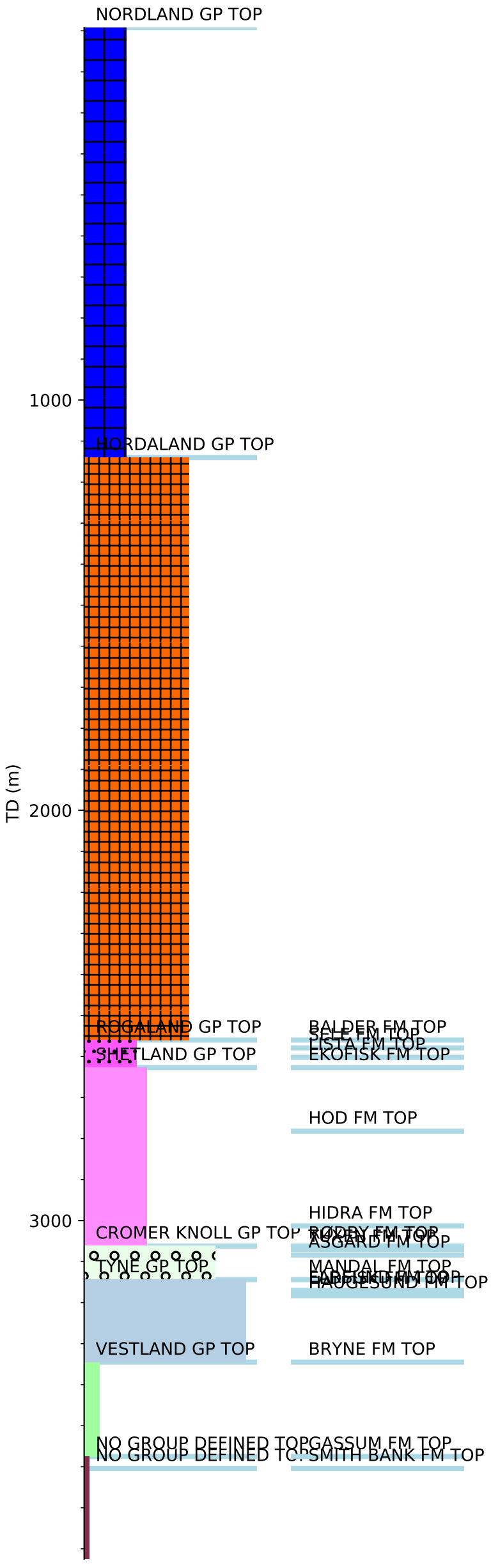
Groups

Formation Tops



Wellbore History

GENERAL

Exploration well 3/5-2 is located in the eastern part of the Søgne Basin. The main objective was to test the hydrocarbon potential of northeasterly dipping Jurassic sands, which appeared to be truncated up dip by erosion at a Late Kimmerian unconformity. The exact age of the beds above and below the unconformity could not be predicted with certainty with the seismic evidence available. There was no capable closure at any post unconformity horizon higher than that mapped as Late Kimmerian unconformity just above a possible Jurassic Sand.

Well 3/5-2 is Reference well for the Middle to Late Jurassic Haugesund Formation

OPERATIONS AND RESULTS

Wildcat well 3/5-2 was spudded with the semi-submersible installation Odin Drill on 29 June 1978 and drilled to TD at 3826 m in the Triassic Skagerrak Formation. The well was drilled without significant problems. After drilling 164 m of 36" hole the pipe was stuck, but after spotting two 60 Bbl LCM pills followed by an 85 Bbl pill of Pipe Lax the string pulled free without significant lost time. Drilling went on through the 26" section to 462 m using viscous gel mud. From 426 m to TD the well was drilled using a Drispac/Spersene mud system, adding Resinex from ca 3080 m.

Reservoir potential was encountered in the Late Cretaceous Chalk (Maastrichtian 2708.5 m to 2726.5 m) and in Late Jurassic (3174 m to 3185 m) and Triassic (3575 m to 3823.5 m) sandstones. Geochemical analyses proved oil prone shale, marginally mature (%Ro = 0.6 û 0.7), in the Late Jurassic Kimmeridge Clay with TOC measured up to2.1 %. Also the Middle Jurassic Haldager Formation contained shales with potential for gas and possibly some oil. Vitrinite reflectance in one sample from this Formation was %Ro = 0.85. Small quantities of C1 to C4 were recorded in the Late Jurassic Kimmeridge Clay Formation (3143 m to 3163 m) and in even smaller amounts in shales at the top of the Middle Jurassic (3331 m to 3359 m). A slight, streaming crush cut fluorescence was obtained from the shales of the Kimmeridge Clay Formation. A slight to good light yellow fluorescence was also recorded in samples of the Middle Jurassic at 3359 m and at 3368 m. There were no other indications of hydrocarbons in the mud or cuttings. Subsequent log analysis confirmed that hydrocarbons were not present in any significant quantities. No conventional cores were taken, but 72 sidewall cores were recovered from the Jurassic and Triassic. No fluid samples were taken. The well was permanently abandoned as a dry hole on 20 August 1978.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 3/5-2