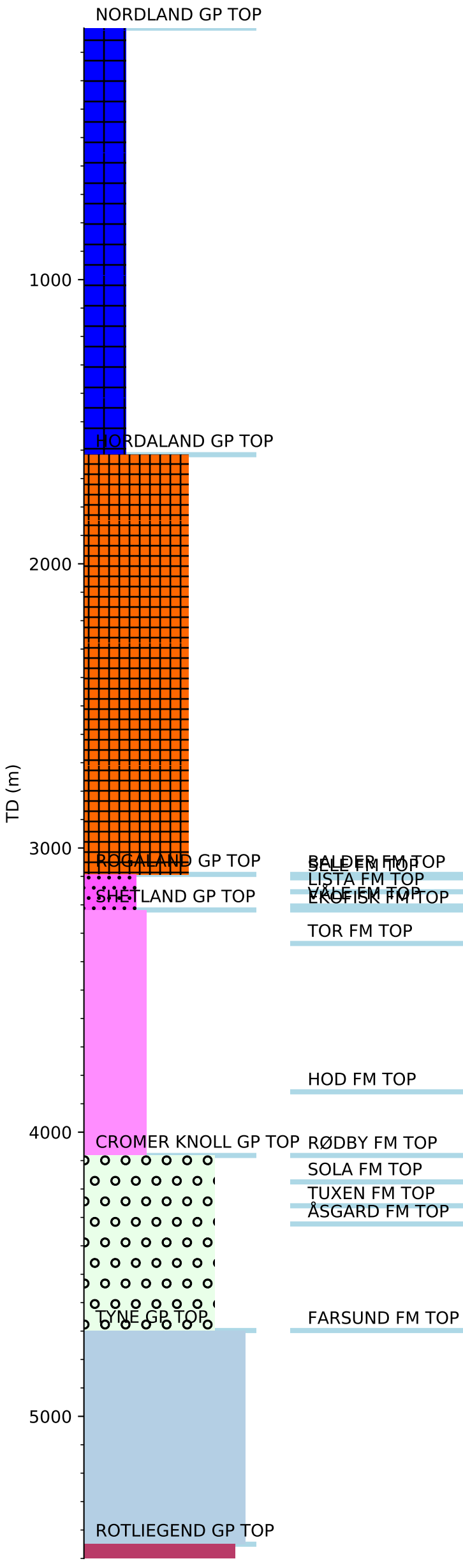
Groups

Formation Tops



Wellbore History

GENERAL

The 2/9-4 Trane well is located on the Piggvar Terrace in the Norwegian Sector of the Danish-Norwegian Basin in

the North Sea. The target prospect was seen as a continuation of the recent Danish sector Hejre discovery structural trend and reservoir/trap system and the sole objective of the well was to explore the hydrocarbon potential of the Jurassic J62 Heno Formation (Gert Member Sandstone) prospect. The 2/9-4 well location was planned to be approximately 10 km from the Danish sector Hejre-2 well location. The Trane well was planned as a near-vertical HPHT well with a prognosed TD at 5512 m or when sufficient rat hole was drilled below the base of the Karl Volcanics to allow testing in the discovery case and full coverage logging in the wet case.

OPERATIONS AND RESULTS

Wildcat well 2/9-4 was spudded with the jack-up installation Mærsk Galant on 20 March 2008 and drilled to TD at 5500 m in volcanic rocks within the Permian Rotliegend Group. An apparent influx into the wellbore was observed while drilling at 5056 m with 16.9ppg MW and required an increase in MW to 17.0 ppg to allow drilling to continue. The ECD immediately prior to this "influx" had been 17.2 ppg and the influx was thought to have been caused by gas expansion near surface after drilling into a gas pocket trapped beneath a thin dolomitic limestone stringer. A flow check at 5116 m due to high drilled gas levels in the mud showed the well was flowing at 14bbl/hr with a MW of 17.4ppg. The well required 17.7 ppg MW to return to a static condition. The Pore Pressure through this section was significantly higher than the pre-drill estimate and appeared to indicate that the Trane structure represented an isolated block with a different structural and pressure history to the adjacent Hejre structure. Losses of 26 bbl/hr were noted at 5475 m and were cured after pumping and soaking 2 LCM pills. Drilling continued to TD without further incident. The well was drilled with sea water and hi-vis pills down to 203 m, with spud mud from 203 m to 1007 m, with Glydril mud from 1007 m to 2495 m, with Paratherm oil based mud from 2495 m to 2715.5 m, and with WARP oil based mud from 2715.5 m to TD.

No reservoir quality sands were developed at any level below Miocene level. The Gert Member Sandstone objective was absent. The oil-based muds used as the drilling fluids for the entire well below the 20" shoe at 1002.1 m, made

shows identification difficult. No shows that could be distinguished from the OBM were observed.

Wire line logging runs gave a bottom hole maximum temperature of 156 deg C with Horner plot corrections suggesting a maximum static down hole temperature at TD of 158 deg C.

No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 4 July 2008 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/9-4