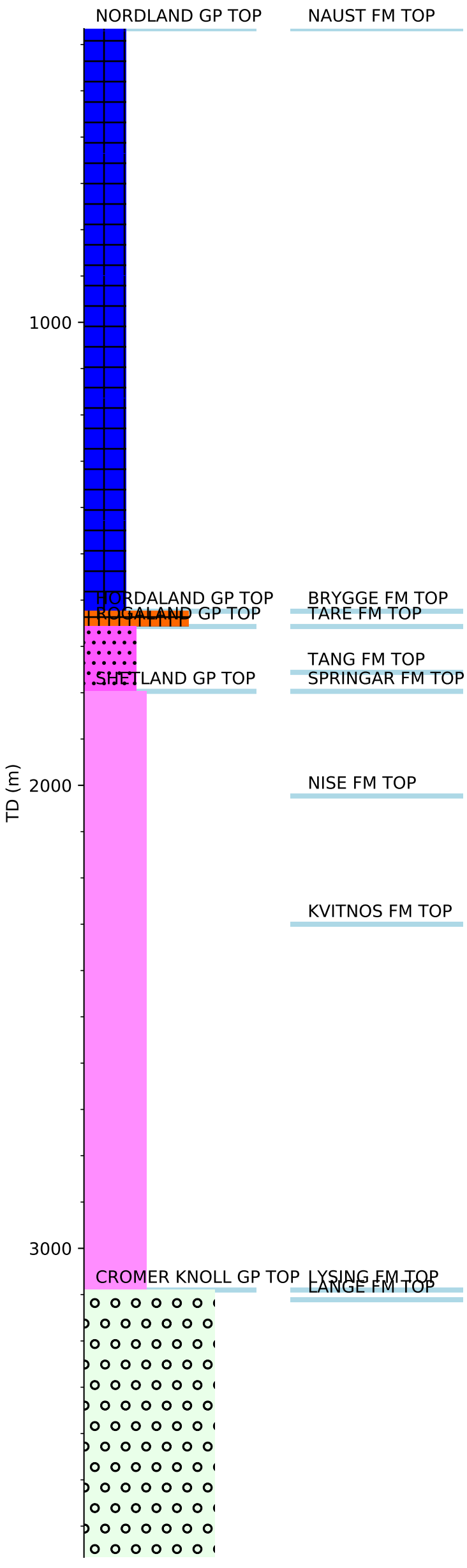

Wellbore History

GENERAL

Well 6506/3-1 is located west of the Skarv Discovery on the western Margin of the Dønna Terrace, off shore Mid Norway. The primary objective of the well was to demonstrate the economic potential of two prognosed hydrocarbon reservoirs in Structure A in the Brygge (Paleogene) and Lysing (Cretaceous) Formations. The corresponding prospects were called the Harran and the Grong-A prospects respectively. In addition, Cretaceous Nise and Lange Formation sands were seen as high-risk leads.

OPERATIONS AND RESULTS

Wildcat well 6506/3-1 was spudded with the semi-submersible installation Byford Dolphin on 22 July 2001 and drilled to TD at 3667 m in the Early Cretaceous Lange Formation. Operations went without significant problems. The well was drilled with seawater and hi-vis pills down to 1382 m and with Versavert oil based mud from 1382 m to TD.

The Tertiary Brygge Formation reservoir sands were not present in the well. The Brygge, Tare and 37 m of the Tang Formation contained a total of 140.5m (Measured Thickness) of diatomaceous material and volcanics. The diatomite unit has an average porosity of 38% (max.60%) and very low permeability. SEM and XRD results show diatomite to be the dominant lithofacies in this interval with some component of volcanic glass. The Opal A to Opal CT transformation has only partly taken place at the base of the unit. The unit was water filled and significantly over-pressured. The fluid content in the Brygge unit was crudely identified as water, due to a water kick. MDT sampling of the Brygge unit was not possible to perform due to the physical properties of the encountered diatomite lithofacies. Hydrocarbon migration through the formation could only be inferred from the gas log data, which indicated a significant amount of methane present when the formation back-flowed. The well found 21 m gross Lysing reservoir sands from 3090 m to 3110.5 m by logging, coring and SWC. The formation shows an upward increase in grain-size from claystones to medium grained sandstones. At best some 3 m of the uppermost sands had porosity of 20%. The fluid type after recovering MDT samples from 3091.2 m (3 bottles of fluids) were identified to be water containing traces of phenols and organic acids. The water was very fresh with a total salinity of 11366 mg/l and with a low CaCO3 saturation at initial conditions. The water was highly unsaturated in gas: no free gas was found in any of the samples. Methane and longer chain hydrocarbons were present. The samples had 6-9 vol-% contamination from the oil-based mud. The high-risk Nise and Lange sands were not present in the well.

A single core was cut in the interval 3101.5 m to 3171.5 m in the Lysing Formation and into the Lange Formation.

The well was permanently abandoned on 19 August 2001 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6506/3-1