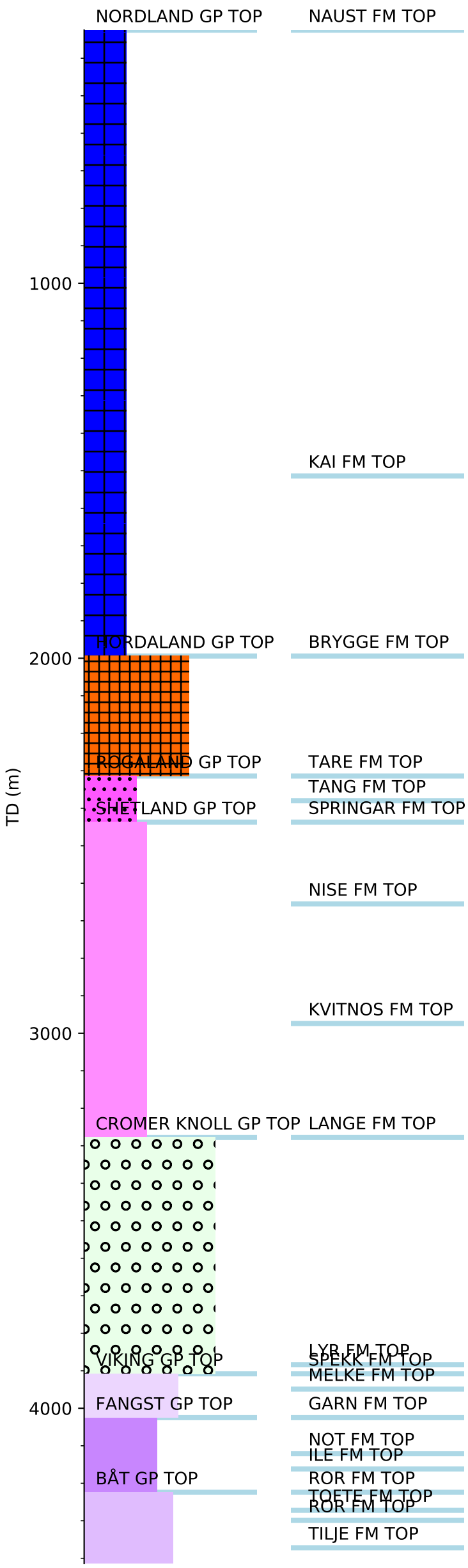

Wellbore History

GENERAL

Well 6406/3-4 was drilled to appraise the Trestakk oil discovery made with well 6406/3-2. The primary purpose of the well was to appraise hydrocarbon accumulations of significant amounts in the Middle Jurassic reservoirs down flanks on the Trestakk structure. Secondary objectives were to check for hydrocarbon accumulations deeper than the structural closure of the main field, to verify the geophysical and structural interpretation, and improve the geological, paleontological and geochemical understanding of the area. Total depth was to be 50 m into the Ti1je Formation.

OPERATIONS AND RESULTS

Appraisal well 6406/3-4 was spudded with the Dyvi Offshore semi-submersible installation Dyvi Delta on 25 September 1987 and drilled to TD at 4414 m in Early Jurassic Tilje Formation. The well was drilled with seawater and hi-vis pills down to 1179 m, with gypsum/polymer mud from 1179 m to 3984 m, and with gel/lignosulphonate mud from 3984 m to TD. Drilling proceeded without significant problems and there were no signs of shallow gas. An expected pressure build-up started in Paleocene and reached its maximum at 1.50 g/cm3 EMV in the top of Cretaceous. After this the over-pressure decreased and was at 1.42 g/cm3 EMV close to top Jurassic.

A very weak show was recorded in association with a 2.61% gas peak at 2469 m in the Springar Formation. From 2450 m in the Nise Formation to 2670 m shows were recorded on 50 % of sandstone samples. These shows appeared to be a volatile, light petroleum and continued, gradually disappearing, down to 2750 m in the Nise Formation. Top reservoir came in at 4018 m. There were good shows on cores down to 4078 m, but the reservoir qualities did not seem to be very good due to low permeability. In the Ile Formation poor shows were recorded on cores, indicating tight rocks or residual oil. Residual shows were recorded also in the Tofte Formation, while weak "background" shows were recorded in the Tilje Formation from 4372 m to TD. Geochemical analyses of core sample extracts were consistent with a suggested contact/spill point at 4039 m, and a change in the hydrocarbon shows characteristics was confirmed at 4052 m. The geochemical analyses further confirmed that core chip extracts from the interval 4021.18 m to 4051.94 m in the Garn Formation, and a DST sample from the same formation in the discovery well 6406/3-2 belonged to the same oil family. A proposed OWC at 4074 m was not verified by the geochemical analyses. Results of the well 6406/3-4 indicated that reservoir properties decreased down flanks on the structure. As a result the reserve estimates for the Trestakk structure for oil and associated gas were reduced after drilling this well. Six cores were cut, four in the Garn Formation in the interval 4020 - 4122 m, and two in the Ile Formation in the interval 4156 - 4213 m. Two FMT fluid samples were taken, one at 4105.3 m and another at 4108 m. The well was permanently abandoned on 29 December 1987 as a dry hole with shows.

TESTING

Four drill stem tests were carried out, one in the Ile Formation (DST 1) and three in the Garn Formation (DST 2, 3 and 4). DST 1 (4175 m to 4198 m) produced 1.8 - 2 m3 fluid/day. No samples were taken. DST 2 (4103 m to 4117 m) produced 60 m3 water/day decreasing to 2.7 m3 water/day. Bottom hole samples were taken. DST 3 (4054 m to 4082 m) produced 7.4 m3 water/day decreasing to 4 m3 water /day. Bottom hole samples were taken. DST 4 (4025 m to 4044 m) produced 2.6 m3/day decreasing to 1.6 m3/day. No sampling.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6406/3-4