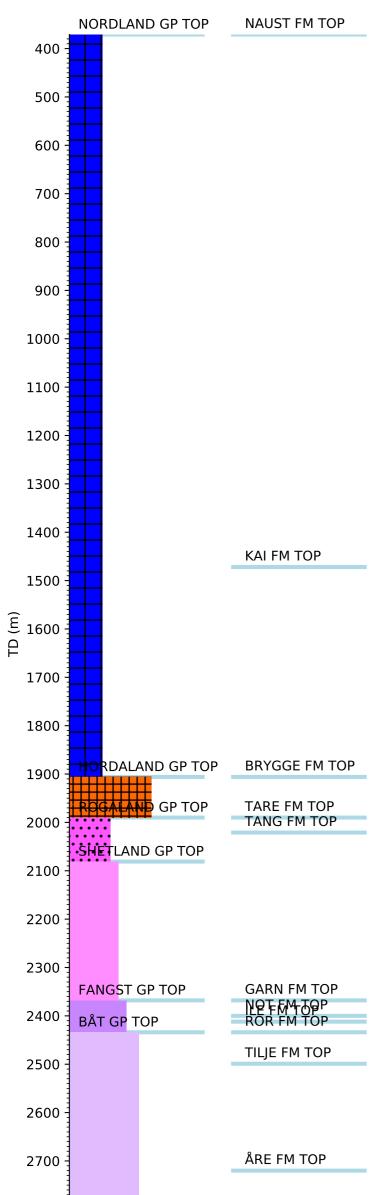


## **Wellbore History**



2800

## **GENERAL**

Appraisal well 6507/7-3 was drilled in the northern part of the Haltenbanken area, some 190 km west of the Norwegian coast. It was drilled to evaluate the "B" prospect in the intensely faulted zone that lies at the intersection of the Nordland Ridge in the northeast and the Halten Terrace in the south. The prospect was in a southward plunging horst block formed by a Late Jurassic tensional fault system. The well was drilled down dip from the 6507/7-2 discovery well. It was designed to test the Middle Jurassic sands to determine whether an oil leg was present.

## **OPERATIONS AND RESULTS**

Well 6507/7-3 was spudded with the semi-submersible installation Nortrym on 29 July 1985 and drilled to TD at 2850 m in Early Jurassic sediments of the Åre Formation. Few problems were experienced during operations on 6507/7-3, those that did occur were predominantly related to gumbo and tight hole conditions. There were no serious accidents or problems during the operation. A total of 54 days was spent on drilling, logging, testing, and completion. The well was drilled with sea water and gel sweeps down to 1030 m, and with gypsum/polymer mud from 1030 m to TD.

The Late Cretaceous (Santonian) was found directly overlying the Middle Jurassic (Callovian) Fangst Group as anticipated. No hydrocarbon fluorescence or staining was observed until the top of the Fangst Group at 2367.5 m. The Fangst and Båt Group was found oil bearing down to claystones belonging to the Ror Formation at 2540 m. Patchy fluorescence and a slight hydrocarbon odour persisted down to 2448 m. Using gradients established from electric logs, excellent RFT pressure data, and fluid analysis, the true oil/water contact was however indicated to be at 2491 m. No hydrocarbon fluorescence or staining was observed on cores or ditch cuttings below 2448 m.

Thirteen cores were cut from 2360 to 2470 m and 2500 to 2662 m with 96% recovery from the Late Cretaceous through to the Early Jurassic. Analysis of cores and logs indicated good porosities and permeabilities, particularly in the upper section. RFT fluid sampling was done in the Fangst and Båt Groups at 2390 m, 2393 m, 2395 m, 2410 m, 2417 m, 2432 m, 2433.5 m, and 2444.5 m

The well was abandoned on 18 September 1985 as an oil and gas appraisal well.

## **TESTING**

Three drill stem tests were undertaken, all of them testing the oil-bearing sands of the Fangst Group. The intervals perforated were: 2413 - 2430 m (DST 1), 2385 - 2400 m (DST 2), and 2368 - 2380 m (DST 3). At stabilized conditions on various choke sizes, peak production of oil on test was 870 Sm3/ day (5465 BOPD), with an oil gravity of 29 deg API. Associated gas production was 93000 Sm3/day (3.285 MMCFD) with a gravity of 0.67 with respect to air. The average temperatures measured at gauge carrier depth were 86.1, 85.9, and 84.8 deg C in DST, DST 2, and DST 3, respectively