



## Wellbore History

### GENERAL

Well 6506/11-1 was designed to prove hydrocarbons in the G-structure in the easternmost part of block 6506/11 close to Smørbukk Field. The primary purpose of the well was to prove significant hydrocarbon accumulations in the Middle-Early Jurassic reservoirs. Secondary targets were sands of Cretaceous age, especially the Lysing Formation that has been proven to be oil-bearing in the area. The well should also test the hypothesis of a western ultra-high pore pressure area, verify the geophysical and structural interpretation and to improve the geological, paleontological, and geochemical understanding of the area. Total depth was planned 200 m into the coal-bearing Åre Formation.

### OPERATIONS AND RESULTS

Wildcat well 6506/11-1 was spudded with Smedvig Drilling semi-submersible installation Dyvi Delta on 30 December 1987 and drilled to TD at 4679 m in the Early Jurassic Åre Formation. The well was drilled with spud mud down to 590 m, with gypsum/polymer mud from 590 m to 3500 m, and with Ligno/Lignite/Gel mud from 3500 m to TD. Shallow gas was present between 613 m and 618 m. The drilling generally went without problems. The Lysing Formation sandstone was thinner than expected in this location. It was water bearing with weak shows only. In the lower part of the Lange Formation an 85 m sequence of sandstone with poor porosity and interbedded claystones was encountered. Weak shows were recorded in the sandstones and the sequence proved to be gas-bearing. The Fangst Group prospect came in as prognosed, but did not indicate hydrocarbons except for poor to fair shows. Logs showed that it was water-bearing. High pressure was registered. This is typical for water-bearing holes on Haltenbanken. Four cores were cut in the well; two in the Garn Formation from 4140 m to 4195 m; one in the Ile Formation in the interval 4262 m to 4274 m; and one core in the Ror/Tilje Formations from 4477 m to 4504 m. No wire line fluid samples were taken. The well was permanently abandoned on 31 March 1988 as a well with shows.

### TESTING

One DST test was performed in the lower Cretaceous, with perforated intervals 3727 m to 3730 m and 3741 m to 3745 m in the lower part of the Lange Formation. It produced 690 Sm<sup>3</sup> gas / day through a 12.7 mm choke. Gas gravity was 0.645 (air =1)

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6506/11-1