



## Wellbore History

### GENERAL

Well 6607/5-1 was designed to test the reservoir potential in the Amundsen prospect on a tilted fault block at the crest of the Bodø High. Middle to Lower shallow marine sandstones of the Båt and Fangst Groups were the primary objectives. The main source rock interval was expected to be the Spekk Formation "hot shale". In addition the Åre Formation was expected to have source rock potential. Cretaceous and Tertiary claystones/shales were prognosed to provide the main top seal on the underlying sandstones. Possible absence of the Middle-Lower Jurassic reservoir was considered the major risk for the Amundsen prospect. Adequacy of source was considered a second major risk. TD was prognosed to 3800 m.

### OPERATIONS AND RESULTS

Wildcat well 6607/5-1 was spudded by SDS Drilling semi-submersible installation "Vinni" 9 June 1987, and completed 11 September 1987 at a depth of 3817 in the Late Cretaceous Lange Formation. Drilling proceeded without significant problems. The well was drilled with bentonite mud to 915 m and with water based KCl mud from 915 m to TD. The primary objects were not penetrated, as the reflectors interpreted as Jurassic, turned out to be of Cretaceous age. Shallow gas was encountered within Pleistocene sediments over the interval 966 m - 1040 m, which correlates well with a strong seismic anomaly which was picked predrill at 977 m. Late Cretaceous rocks were encountered at 2512 m, underlying 2117 meters of Cenozoic clay stones and siltstones. The Late Cretaceous (Basal Maastrichtian-Late Cenomanian) sediments (1305 m) consist predominantly of very fine clastics (clays, claystones, shales and siltstones). Minor fluorescence and cut were observed in intervals below 3385 m in silty, sandy claystones of Late Cenomanian-Turonian to Turonian-Santonian age. No significant reservoir intervals were penetrated. A few meters of net sand were seen in thin sand beds of Campanian-Santonian age. In addition, weak hydrocarbon shows were encountered in the Cretaceous sandstones at 3410m and 3550 m. However, interpretation of data from electrical logs revealed that all these porouse intervals were water saturated. Two cores were cut in the Shetland Group. The well was plugged and abandoned as a dry well.

### TESTING

No drill stem test was performed.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6607/5-1