



## Wellbore History

### GENERAL

The wildcat 2/2-3 was drilled on a domal structure, south of the Ula-Gyda fault zone. Main objective was Late Jurassic sandstone in the Vestland Group. Secondary target was Middle Jurassic and Late Triassic sandstones.

According to the license agreement the well should be drilled into the Triassic, salt, or a maximum depth of 5000 m whatever came first

### OPERATIONS AND RESULTS

The well was spudded with the semi-submersible rig Treasure Saga on 4 February 1983 and drilled to TD at 4100 m, 170 m into the Triassic Smith Bank Formation. At 3286 m the string was lost after a wiper trip. The well had to be plugged back to 3053 m and sidetracked from this point. At 3420 m the string was again lost but was recovered. The well was drilled using water-based mud. The well was drilled with seawater and bentonite down to 655 m, with polymer/gypsum/"SST 202" mud from 655 m to 1910 m, with lignite/Drispac/gypsum mud from 1910 m to 3523 m, and with lignite/lignosulphonate mud from 3523 m to TD.

The well penetrated 2998 m of Cenozoic sediments represented by the Nordland, Hordaland and Rogaland Groups. The sequence was mainly composed of argillaceous deposits. The Oligocene Sand Unit (Vade Formation) recognized in well 2/2-1 and 2/2-2, was not established in this well. The Cretaceous sequence consisted of two lithostratigraphic units, the Chalk and Cromer Knoll Group. They were separated by an unconformity ranging from Santonian to Middle Albian. The Early Cretaceous and upper part of the Late Jurassic (Ryazanian-Middle Volgian) are highly condensed. The Late Jurassic predominantly consists of claystones of the Mandal (4m) and Farsund Formations. The Ula Formation is present from 3880 m in the bottom part of the Late Jurassic as a sandstone sequence of Early Kimmeridgian - Late Oxfordian age. The formation is resting unconformably on sediments of the Triassic Group.

The Shetland Group chalk, 2965 m to 3494 m, has 112 meters of net porous limestone with an average porosity of 21 percent. The chalk is clean. Where the porosity is highest, 3050 m to 3090 m, the well has a large wash-out. The Ula Formation was a sandstone with 19 percent mean porosity (based on core and log analyses), but with a permeability not exceeding 1 mD in any net sand found. The cored sand was well cemented. The Triassic formation that was penetrated, 3930 m to 4100 m, had 15 meters of sand with a porosity of 16 percent. The sand was more shaly than the Jurassic sand. Fifty attempts were made to get formation pressures with the FMT-tool. Because of tight formation, only one measurement (4084.5 m in the Triassic sand with 10237 psi) can be assumed correct, and even this point was of questionable quality. All porous intervals in the well were water bearing. No shows were reported from this well. One core was cut from 3887.7 m to 3905.5 m in the Ula Formation sand. No fluid sample was acquired. The well was permanently abandoned as dry on 11 May 1983.

### TESTING

No drill stem test was performed

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/2-3