



**Wellbore History**

**GENERAL**

Wildcat well 31/4-4 is located on the Lomre Terrace north of the Brage Field and east of the Oseberg Field. The primary objective of the well was to test possible sandstone reservoirs of Cretaceous age. The secondary objective was to test sandstone reservoirs of Late Jurassic age, anticipated to be Intra Heather Formation sands.

The well is Reference Well for the Etive, Ness, and Tarbert Formations of the Brent Group.

**OPERATIONS AND RESULTS**

Well 31/4-4 was spudded with the semi-submersible installation Nortrym on 17 December 1980 and drilled to TD at 3150 m in Early Jurassic sediments of the Statfjord Formation. The well was drilled with seawater and viscous gel down to 900 m and with KCl / polymer mud from 900 m to TD.

No reservoir sands of Cretaceous age were encountered in the well. Poor shows were reported from two limestone stringers and a thin, tight sandstone stringer of Late Cretaceous (Maastrichtian and Late Campanian) age. A Late Jurassic "Intra Heather Sand I" (Sognefjord Formation) was encountered at 2363 m with a gross thickness of 39 m. The net sand interval was 24 m and consisted of fine-grained to very fine-grained argillaceous, micaceous sandstone. Average porosity was calculated to 16 %. Eighty-nine percent water saturation was calculated for this sand indicating that poor oil shows encountered while drilling the interval, were residual. A second "Intra Heather Sand II" (Fensfjord Formation) was penetrated at 2482 m with a gross thickness of 45 m. The sand was water bearing without shows. The lithology was similar to the upper sand. The other reservoir sequences encountered in the well, sandstones in the Middle Jurassic Brent Formation, the Early Jurassic Cook Formation, and the Statfjord Formation, were also water bearing. The gross sand thicknesses of these were 118 m, 21m and 67m, respectively.

A single conventional core was cut between 2490m and 2508m, near the top of the lower Intra Heather Sand interval. It was dated to Oxfordian in age and consisted of 18 m (100%) of very fine-grained sandstone with good porosity, except in some heavily cemented horizons. No fluid sample was taken.

The well was permanently abandoned on 17 February 1981 as a dry hole.

**TESTING**

No drill stem test was performed.

**LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/4-4**