



**Wellbore History**

**GENERAL**

Well 25/1-1 was drilled in the middle of block 25/1 in the Viking Graben, close to the UK border. Seismic surveys had defined structural closure at several levels in Mesozoic and into lower Tertiary horizons. At Paleocene level an "amoeboid" feature extending as much as 350 km<sup>2</sup> with a vertical closure of 180 m was mapped. The primary objective of the well was to test the hydrocarbon potential of the Early Tertiary, interpreted to be a deltaic sand build-up. Secondary objective was Jurassic sandstones.

The well is Type Well for the Frigg, Svarte, Blodøks, Tryggvason, Kyrre, and Jorsalfare Formations.

**OPERATIONS AND RESULTS**

Wildcat well 25/1-1 was spudded with the semi-submersible installation Pentagone 81 on 30 March 1971 and drilled to TD at 4570 m in Middle Jurassic Hugin Formation. The well was drilled with a seawater/LFC mud system down to TD.

Apart from sandy sections in the Nordland Group, the lithology down to top Frigg Formation at 1836 m was mainly claystones. The Frigg Formation sandstones had porosities in the range 30 to 40% with permeabilities of several Darcy. It was hydrocarbon bearing with a gas/oil contact at 1972 m, and an oil/water contact at 1992 m. Further shows were seen in a thin sand at 2470 m in the Lista Formation. An FIT sample recovered a small amount of oil from this sand. Oil shows were also recorded on limestone on core K5 in the Jorsalfare Formation. The Jurassic sequence penetrated by the well was mainly shales of the Viking Group and only 10 m of Hugin Formation sand at TD. No shows were reported from the Hugin Formation.

Six conventional cores were cut. Cores K1 to K3 were cut from 1868 to 1910 m in the Frigg Formation. K4 was cut from 2687 to 2696 m in the lower Lista Formation, while K5 and K6 were cut from 2826 to 2843 m and from 2993 m to 2997.5 m in the Jorsalfare Formation. Wire line fluid sampling was attempted at nine different depths. Hydrocarbon fluids were recovered from four levels: 1893 m (gas and filtrate), 1927.5 m (gas and filtrate), 1973.5 m (gas, filtrate and a small amount of oil), and 2471 m (filtrate and a small amount of oil).

The well was permanently abandoned on 22 July 1971 as an oil and gas discovery.

**TESTING**

A production test was carried through perforations between 1920 and 1928 m on gas bearing Frigg Formation sands. The test produced 674000 Sm<sup>3</sup> gas /day.

**LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/1-1**