

Wellbore History

GENERAL

Well 31/5-2 is a replacement well for well 3/5-1 in the southern part of the Troll West Field. Well 31/5-1 was terminated at 860 m and junked due to an incident where the BOP and riser was lost. Due to this, the rig left the location and went to Bergen for repairs. It returned to the location five days later for drilling 31/5-2. The purpose of the well was to test the reservoir qualities, the oil/gas columns, and the hydrocarbon/water contact in the area.

OPERATIONS AND RESULTS

Appraisal well 31/5-2 was spudded with the semi-submersible installation Treasure Saga on 5 October 1983 and was drilled to TD at 2500 m in the Late Triassic Hegre Group. A total of 5 days were lost on setting the 18 3/4" x 9 5/8" seal-assembly, otherwise no significant technical problems occurred in the operations. The well was drilled with seawater and hi-vis pills down to 860 m and with KCl/polymer mud from 860 m to TD.

Well 31/5-2 penetrated top reservoir at 1521 m. The interval 1521 - 1569 m was gas bearing with 30% porosity and 15% water saturation. The interval from 1569 - 1582 m was oil bearing with 27% porosity and 30% water saturations. These intervals were the only hydrocarbon bearing intervals in the well. Between 1569 and 1582 m there were good shows in the cores. They showed brown oil stain, golden-yellow fluorescence and instant cloudy, milky, white cut. There was strong hydrocarbon odour.

A total of six cores were taken in the interval 1505.0 -1599.9 m, covering the basal 16 m of the Draupne Formation and the upper 78 m of the Sognefjord Formation. The core recovery was 81%. FMT segregated fluid samples were taken at 1563 m (gas), 1575 m (oil at 135 bar), and 1581 (oil at 90 bar).

After surveying, logging and sidewall coring, the well was plugged back to 1902 m and suspended on 11 November 1984. The well was to be re-entered at a later stage for testing.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/5-2