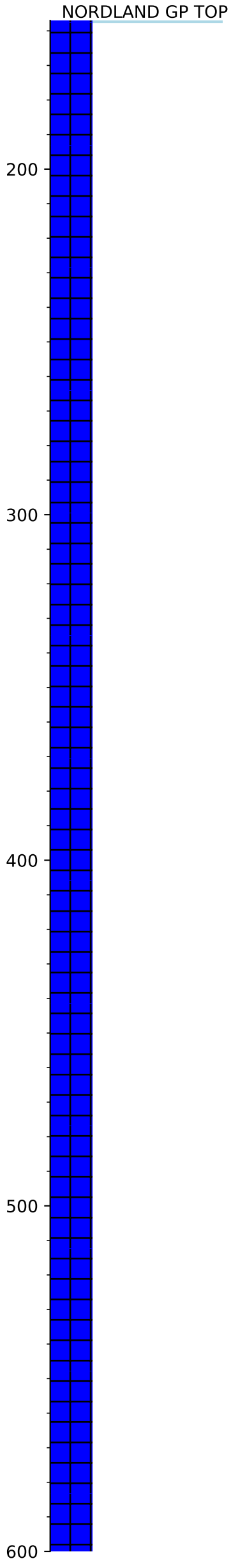
Groups



Formation Tops

N/A

Wellbore History

GENERAL

Well 34/10-24 was drilled to test possible shallow gas accumulation in sandstones at the location for the Gullfaks A platform. The targets were several sand layers of Pliocene age between 313 m and 600 m. Gas had been indicated on seismic anomalies and logs from other wells in the same field.

OPERATIONS AND RESULTS

Well 34/10-22 was spudded with the semi-submersible installation Deepsea Bergen on 28 June 1985 and drilled to TD at 600 m in Pliocene sediments in the Nordland Group. No significant problem was encountered in the operations. The well was drilled with water based mud.

Top Pliocene was encountered at 285 m. The well encountered sand layers at 334.5 to 337.5 m, 346 to 347 m, and at 436 to 441 m. The sand at 334.5 to 337.5 m was gas bearing. According to previous log correlations, the well should have run into rocks of Miocene age. But biostratigraphical investigations proved only fauna of Pleistocene and Pliocene, age.

No cores were cut and no wire line fluid samples were taken. Cuttings samples were collected every 5 m from 230 m to TD. A full set of conventional logs where run. Maximum bottom hole temperature on wire line, measured 4 hours after circulation was 29.2 deg C.

The well was permanently abandoned on 5 August 1985.

TESTING

One DST test was performed in the interval 334.5 to 336 m in order to bleed of the gas down to less than hydrostatic pressure. The sand was acid treated and gravel packed and over a ca one week period the well flowed 56 -71 Sm3 gas/day through two parallel chokes of diameters 128/64" and 82/64". Total accumulated production was ca 400000 Sm3 gas. The gas was 97.88% methane; the rest was mainly nitrogen (1.85%) and carbon-dioxide (0.18%). The gas gravity was 0.559 (air = 1). The initial reservoir pressure was estimated to be between 33.2 and 33.7 bar. A minor pressure reduction was registered in the reservoir, but it could not be concluded that the aim of the test was achieved. This indicated that the gas bearing interval was relatively widely distributed, and probably water driven.

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LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/10-24