



Wellbore History

GENERAL

The well 30/9-12 is located on the southern part of the Alpha and Gamma structure in the Oseberg Sør area, some 4 km south of well 30/9-2, and approximately 100 m to the south of the licence boundary PL 079/104. The main target of the well was to appraise the southern extension of the Oseberg field, i.e. to improve the seismic mapping of the Alpha South/Gamma structural complex; to improve stratigraphical mapping and control of the hydrocarbon bearing Brent Group in the area; to test an oil/water contact in relation to the Oseberg Field and the C-structure; and to test communication relations in the Oseberg Field.

OPERATIONS AND RESULTS

Appraisal well 30/9-12 was spudded with the semi-submersible installation Vildkat Explorer on the 7 April 1991 and drilled to TD at 2994 m in the Cook Formation of the Dunlin Group. The well was drilled with spud mud to 1016 m and with KCl polymer mud from 1016 m to TD. Shallow gas predicted at 184 m proved to be the base of a boulder zone, probably a glacially eroded horizon.

The well proved a column of 10.3 m of moveable hydrocarbons oil in the Tarbert Formation with an oil down-to contact at 2674.5 m, However, as no oil/water contact was established, uncertainty remained as to the amount of hydrocarbon resources within the southern part of the Alpha South structure. A total of 70.4 m of net sand was calculated for the Brent sequence, with an average porosity of 21.5% and calculated average Sw of 26.1% in the Tarbert Formation.

The pressure data obtained from the well indicated a significant depletion caused by production from Oseberg B.

Good oil shows were recorded on cuttings from limestone stringers in the interval 2325 m to 2554 m in the Cretaceous and on sandstones (conventional and sidewall cores) in the interval 2658 m to 2673 m in the Tarbert Formation. A total of 10 conventional cores were cut, one in the Heather Formation and nine through the entire Brent sequence and into the top Dunlin. A total of 30 sidewall cores were attempted in the interval 2580 m to 2969.5 m. and 25 were recovered. One wire line RFT fluid sample was taken at 2667 m in the Tarbert Formation. It recovered 5 l of 0.87 g/cm3 oil and some gas.

The well bore was plugged back to 950 m for sidetracking and permanently abandoned on 9 May 1991 as an oil appraisal.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/9-12