

Wellbore History

GENERAL

Well 25/11-8 was drilled ca 3 km west-north west of the 25/11-1 Balder discovery well on the Utsira High in the North Sea. The primary objective was to establish the presence of, and closure on, the thick accumulation of Paleocene zone IB sand in the central part of the Balder Field, evaluate the geologic interpretation of sand distribution and reservoir quality in this field and test the flow potential and nature of the hydrocarbons present.

OPERATIONS AND RESULTS

Appraisal well 25/11-8 was spudded with the semi-submersible installation Dyvi Alpha on 8 September 1979 and drilled to TD at 1950 m in the Early Paleocene Ekofisk Formation. The well was drilled with Seawater/Gel/Lignosulphonate.

The well penetrated the Utsira Formation and several Skade Formation sands and then penetrated a ca 600 m thick section of shales belonging to the lower Hordaland Group before top Balder Formation was encountered at 1655 m. The well encountered two massive sand units in the Paleocene Heimdal Formation at 1721.5 m and 1743.8 m (dinoflagellate zones IB and II, respectively), interpreted as sand lobes deposited from sand-rich turbidity currents in the Balder Deep Sea Fan Complex. Both sands were oil bearing down to an OWC at 1785 m (1760 m MSL). Some thin sands from about 1705 m to 1720 m, overlying the massive sands, also appeared to be oil-bearing, and there were good shows on a core three meter below the OWC.

Nine cores were taken in the interval 1722.5 m to 1800.4 m in the Heimdal Formation. Cores 1 and 4 had no recovery; the remaining cores retrieved a total of 41.7 m. No wire line fluid samples were taken.

The well was permanently abandoned on 16 October as an oil appraisal well.

TESTING

One production test was performed in the interval 1752 to 1767 m in the lower massive sand of the Heimdal Formation. It produced 418 Sm3 oil and 18690 Sm3 gas/day with traces of sand through a 38/64" choke. The GOR was 45 Sm3/Sm3, the oil gravity was 25 deg API (0.90 g/cm3), and the gas gravity was 0.7 (air = 1). No H2S or inert gas was detected.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/11-8