# **Formation Tops Groups** NORDLAND GP TOP 200 300 **UTSIRA FM TOP** 400 500 600 700 ORDALAND GP TOP 800 900 1000 1100 TD (m) **GRID FM TOP** 1200 1300 **HORDALAN**D GP TOP 1400 1500 1600 1700 1800 ALAND GP TOP **BALDER FM TOP** 1900 SELE FM TOP 2000 LISTA FM TOP HEIMDAL FM TOP 2100 2200

## **Wellbore History**

#### **GENERAL**

The Kneler well 25/4-7 was designed as an exploratory test of an irregular 4-way closure midway between the Kameleon structure (discovered by well 24/6-2 in 1998), and the Gekko structure (discovered by well 25/4-3 in 1974), which found a thin hydrocarbon column. The primary reservoir target was the Paleocene Heimdal formation. Well 25/4-7 was designed to provide local structural control to reduce uncertainty in field size and also provide stratigraphic control, particularly the position and character of a shale horizon at the base of the Upper Heimdal reservoir.

#### **OPERATIONS AND RESULTS**

Exploration well 25/4-7 was spudded with the semi-submersible installation Deepsea Bergen on 21 March 2003 and drilled to TD at 2286 m in the Paleocene Heimdal Formation. The well was drilled without significant problems. A number of attempts to get wire line tools to TD failed due to hole obstructions. Hole opening of the 12 1/4" section to 8 1/2" was performed in several steps. Between hole opening operations logging was attempted with variable success. Logs were finally acquired down to 2242 m. The well was drilled with seawater down to 1317 m and with Carbosea oil based mud from 1317 m to TD.

The Heimdal Formation was encountered at 2084.5 m and from logs, MDT sampling, and shows on cores and cuttings it was oil bearing down to the OWC at 2132.5 m. The Heimdal Formation at this location consists of an upper, heterolithic

dominated sequence down to 2105.5 m and more massive sandstone below that depth.

A total of 53 m of core (97.7 % recovery) was cut in two cores in the interval from 2104 m to 2157 m in the Heimdal formation. MDT fluid samples were taken at 2086.4 m (oil), 2110.0 m (oil), and at 2144.7 m (water).

The well was suspended as an oil discovery on 17 April 2003

### **TESTING**

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/4-7