# **Formation Tops** Groups ADVENTDALEN GP TOP KOLMULE FM TOP 300 400 500 600 700 800 900 1000 **HEKKINGEN FM TOP** 1100 STØ FM TOP NORDMELA FM TOP DARAFIN FØ<sub>P</sub>TOP KAPP TOSCANA GP TOP **GIPSDALEN GP TOP** 1200 1300 TD (m) 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500

# **Wellbore History**

#### **GENERAL**

Well 7227/11-1 S is located in the Nordkapp Basin in the Barents Sea. The well was designed deviated to avoid a salt-diapir. The objective was to prove hydrocarbons in the Late Triassic Carnian reservoir sandstone in the Kap Toscana Group. As Permian strata appeared where the Triassic sequence was prognosed, the side track 7227/11-1 A was drilled in order to hit the target.

### **OPERATIONS AND RESULTS**

Well 7227/11-1 S was spudded with the semi-submersible installation Eirik Raude on 13 January 2006 and drilled to TD at 2590 m (2294 m TVD RKB) in Permian evaporite of the Ørn Formation. No shallow gas was expected, but since this was a new area a 9 7/8" pilot hole was drilled. Some hole problems were experienced while opening up the pilot to 26", otherwise operations went without significant problems. The well was drilled with seawater and hi-vis pills down to 725 m, with Sildril mud from 725 m to 1574 m, and with salt-saturated KCl mud from 1574 m to TD.

The observed stratigraphy was somewhat different from the prognosis. The Cretaceous sequence was thinner than expected and the Jurassic sequence came in shallower because of this. Where Triassic strata were prognosed, Permian strata were encountered. Consequently the Triassic targets were not found.

Well 7227/11-1 S was plugged back and abandoned on 22 February 2006. Sidetrack 7227/11-1 A was drilled in order to reach the Triassic targets. The Permian strata encountered in 7227/11-1 S were believed to be large allochthonous blocks intruded into younger strata via halokinesis, and the Triassic targets were prognosed to be located underneath these Permian strata. The well 7227/11-1 A was kicked off on 24 February 2006 below the 13 3/8" casing shoe at 1160 m and drilled to a total depth of 3446 m (3197.6 m TVD RKB), giving the same result as 7227/11-1 S with TD set in evaporite of Permian age. No hydrocarbon indications were observed in the wells 7227/11-1 S and 7227/11-1 A. Except for one gas peak of 43.55 % total gas at 2299 in Permian halite in 7227/11-1S, the gas readings were very low throughout both wells.

No cores were cut and no wire line fluid samples were taken.

Well 7227/11-1 A was permanently abandoned on 24 March 2006. Both well bores are characterized as dry.

## **TESTING**

No drill stem test was performed.