# **Formation Tops** Groups NORDLAND GP TOP <mark>HO</mark>RDALAND GP TOP 1000 TD (m) 2000 ALAND GP TOP POTOPOT GIBACU<mark>NTANIO</mark> SOGNEFIORD FM TOP **FENSFIORD FM TOP** 3000 KROSSFJORD FM TOP **HEATHER FM TOP BRENT GP TOP**

# **Wellbore History**

#### **GENERAL**

Well 31/2-20 S was drilled from the Troll B platform as a joint Pl054 and Pl191 activity. The objective was to investigate the Hydrocarbon-potential in the "P/Q"-prospect shortly west of the Troll West oil province. The main objective was the middle Jurassic Brent Group. A structural closure in the Late Jurassic Fensfjord formation was a secondary target.

### **OPERATIONS AND RESULTS**

Exploration well 31/2-20 S was kicked off on 27 November 2002 from the 13 3/8" casing at 2447/1468 m MD/TVD RKB in production well 31/2-E-3H/AY1H/AY2H/AY3H on the Troll B platform. It was drilled to TD at 3400/1928 m MD/TVD RKB in the Brent group without significant problems. It was drilled as an 8 1/2 " hole from kick-off to TD using a KCl/polymer mud. The main results were:

The P/Q prospect was found to be dry. No hydrocarbon shows were observed in the Brent Group

The Sognefjord Formation sandstones were encountered with oil and gas according to prognosis (GOC and OWC were met at 2695 m/1545.5 m MD/TVD MSL and 2759.2 m/1572 m MD/TVD MSL respectively). No other contacts were observed.

Top Brent was penetrated 39 m deeper than expected? basically due to higher than expected Jurassic interval velocities. A hydrocarbon fluid-inclusion study performed concludes: No fluorescent hydrocarbon fluid inclusions are observed, either in cemented fractures or in quartz overgrowth, which confirm low probability of any petroleum charging during geologic time.

The well was drilled with return to seabed from seafloor 355m to setting depth of 15 5/8" casing at 1146m. MWD was run through the whole well. In the interval 2457-3400m MD RKB an LWD-suite comprising GR, resistivity, density, neutron, and sonic logs was run. No wire line survey was run. No cores were taken. No biostratigraphic evaluation has been performed. No fluid samples were taken.

The well was permanently abandoned on 8 December. Oil and gas was encountered in the Sognefjord Formation as expected, but the exploration targets were dry.

## **TESTING**

No drill stem test was performed