



**Wellbore History**

**GENERAL**

Well 35/3-5 is located ca 13 km south of the Agat Discovery. The primary target of the well was sandstones of Early Cretaceous age, which had been found hydrocarbon bearing in the 35/3-2 and 35/3-4 wells. The well was considered a wildcat due to the uncertain correlation between sand bodies in the area. The secondary objective was to penetrate sandstones of Middle - Early Jurassic age, which had been found hydrocarbon bearing in 35/3-2.

The well is Reference well for the Agat Formation.

**OPERATIONS AND RESULTS**

Exploration well 35/3-5 was spudded with the semi-submersible installation West Venture on 22 December 1981 and drilled to TD at 4114 m in Basement rocks. The well was respudded two times due to boulders. Shallow gas caused problems with cementing and caused a leak outside of the casing. The leak was repaired and further operations were performed without any specific problems. The well was drilled with seawater and hi-vis pills down to 420 m, with seawater/gel mud from 420 m to 1046 m, with gypsum/polymer mud from 1046 m to 2052 m, and with lignosulphonate mud from 2052 m to TD.

The Agat Formation was encountered from 3219 m to 3620 m. A thin Intra Heather sandstone was penetrated from 3865 m to 3874 m. A minor show was noted at the top of the Agat Formation. Minor oil shows with associated formation gas peaks were recorded in sandstones at 3547 m and 3568 m. Minor shows were recorded in siltstones below 3685 m, but these were not associated with gas peaks. Organic geochemical analyses confirmed migrant hydrocarbons at 3223 m in the top of the Agat Formation. Source rocks were immature down to about 3000 m. Oil window maturity is postulated below ca 3900 m. Below ca 3300 m in the well total organic carbon was found in the range 1.7 % to 3 % in picked mud stone samples. Shale in a thin interval at 3286 m to 3295 m was evaluated as a good/rich potential as a source rock for gas and oil while claystone/siltstone from 3847 m to 4063 had fair/good potential as a source rock for gas and some paraffinic oil. Four cores were cut in the interval 3227.6 m to 3292.1 m in the Agat Formation (log depth ca 4 m deeper for all cores). A fifth core was attempted in the Heather Formation, but this core had no recovery. An RFT fluid sample at 3243 m recovered only water and mud filtrate.

The well was plugged and abandoned as a dry hole with weak shows.

**TESTING**

No drill stem test was performed.

**LITHOSTRATIGRAPHY & HISTORY FOR WELL: 35/3-5**