



Wellbore History

GENERAL

Well 15/9-12 was drilled as an appraisal well on the saddle area between the Alpha and Beta structures on the Sleipner Vest field in the North Sea. The main objective was to test the Middle Jurassic sandstones.

OPERATIONS AND RESULTS

After setting anchors on 8 November 1981 the spud was delayed two weeks due to strike by the maritime and drilling crews.

Appraisal well 15/9-12 was spudded with the semi-submersible installation Nordraug on 22 November 1981 and drilled to TD at 3740 m in the Middle Jurassic Sleipner Formation. The 36" hole was drilled to 195 m but due to bad weather the hole was lost and the well was re-spudded on 26 November. Drilling of the 26" and 17 1/2" holes went forth without significant problems other than tight spots in the lower part of the 17 1/2" hole. When setting the 9 the 5/8" casing shoe at 2755 m 64 m³ mud was lost to the formation. The well was drilled with seawater and gel slugs down to 501 m, with gel-lignosulphonate mud from 501 m to 1135 m, with lignosulphonate/gypsum/CMC mud from 1135 m to 2771 m, and with gel-lignosulphonate mud from 2771 to 3740 m.

A 251 m thick Heimdal Formation was penetrated from 2374 m to 2625 m. The Heimdal Formation was water bearing without shows. The primary target reservoir Hugin Formation was penetrated at 3510 m and proved to contain gas-condensate with a gas-water contact at 3654 according to RFT pressure gradients. Weak shows continued on the cores down to 3665 m. The underlying Sleipner Formation was dry without shows.

A total of 168.8 m core was cut from top to base of the Hugin Formation. The depth for cores 1 - 9 should be shifted down ca 7 m to fit with the loggers' depth. Cores 10 - 11 should be shifted 8 and 9 m down, respectively. Seven RFT runs were conducted for pressure points and sampling. Segregated fluid samples were taken at 3653 m, 3592.5 m, 3512 m, and 3647 m.

The well was suspended on 27 February 1982 as a gas-condensate appraisal.

TESTING

Testing was planned, but failed due to problems with the test string. For this reason Nordraug was taken to the shipyard and testing would be done in a re-entry.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/9-12