

Wellbore History

GENERAL

Wildcat well 15/9-19 S was the first well to be drilled into the Theta Vest Structure north of the Sleipner East Field. It was designed to test gas from the Heimdal reservoir, and to provide geological and reservoir data enabling optimal reservoir management. The secondary target was the Hugin/Skagerrak Sands, which were to be fully evaluated if hydrocarbon bearing.

OPERATIONS AND RESULTS

Well 15/9- 19 S was spudded with the semi-submersible installation Treasure Prospect on 18 November 1992, from Slot 3 of the Loke Discovery template. The well was deviated, penetrating the top of the Theta Vest structure approximately 2290 m west northwest of the Loke Template, and reached the target Top Heimdal Formation at 3622.5 m (2427.0 m TVD RKB). The 12 1/4" section from 1482 m to 3580 m was drilled with significant problems. Trips out of the hole at 2018 m, 3016 m and 3353 m were performed to change the bits, due to low penetration rate. The hole packed of several times when tripping out. Problems with lost returns and stuck BHA finally led to plugging back and sidetracking from 1493 m. Attempts to orientate the well became progressively more difficult, especially after penetrating 3308.5 m in the Balder Formation. The Lista Formation was encountered at 3483 m, and final TD was set at 3580 m, at the edge of the Heimdal Formation target. The well was drilled with bentonite mud down to 531 m, and with KCL/POLYMER (Phpa/pac) mud from 531 m to TD in the first hole. After sidetracking oil based mud (Petrofree) was used.

The well penetrated 150 m TVD of Tertiary sands between 1313 m and top Balder Formation at 3302 m.

It was temporarily suspended on 31 January 1993 after setting 9 5/8" casing at 3569.0 m (2394.0 m TVD RKB), immediately above the Heimdal sands. No cores were cut and no fluid samples taken in this well bore. It is classified as a dry well.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/9-19 S