



Wellbore History

GENERAL

Well 2/4-14 was designed to drill the same structure on the Steinbit Terrace as well 2/4-13, which was junked on 6 October 1988 due to technical problems. The wells were drilled in the middle of a structural/stratigraphic closure on a rotated fault block. Their primary objectives were to assess the hydrocarbon potential of the main structure in block 2/4. The target was expected Late Jurassic sandstone.

OPERATIONS AND RESULTS

Wildcat well 2/4-14 was spudded with the semi-submersible installation Treasure Saga on 6 October 1988, 53.4 m NNW of the 2/4-13 location. It was drilled to TD at 4734 m in the Late Jurassic Tyne Group. The well was drilled with spud mud and gel down to 916 m, with KCl mud from 916 m to 4453 m, and with Hi Temp Polymer mud from 4453 m to TD.

Drilling went without significant problems down to 3687 m in the 12 1/4" section. On trip out of hole the drill string got stuck with the bit at 3538 m. The pipe could not be freed and a cement plug was set from 3475 m to 3395 m. A technical sidetrack was kicked off from 3415 m to 3463 m. Due to high temperatures the MWD worked only in part, but drilling of the remaining part of the 12 1/4" section to 4453 m proceeded without significant problems. The 8 1/2" hole was drilled to 4713 m where gas cut mud were observed with a maximum gas reading of 68 %. The hole was drilled to 4714 m when the mud weight was increased to 2.10 SG. This mud weight was near the fracture gradient at the casing seat. The equivalent circulating density at the drilling pump rates exceeded the fracture gradient at the casing seat. At 4734 m the well kicked, and gained a total 6.5 m3. The well was shut in and several attempts were made to gain control, without success. Coil tubing was run in to 4691 m and drill pipe circulated to seawater. A 1/2 bbl was taken and the well closed in. Finally, as the drill pipe started to come out of the hole, the shear-rams were activated and the drill pipe was cut on 20 January 1989. The well now developed into an underground blow out. An attempt to bullhead the well was performed, but the kill hose burst at the gooseneck. A new safety plug and no-go cap was entered in the BOP, and annular preventer closed from surface. On 31 January 1989 anchors were pulled and the well was suspended for re-entry with a different rig. Treasure Saga left the location for drilling a relief well ca 1 km to the south (2/4-15 S) to assist in killing operations.

No hydrocarbon bearing intervals were detected above the Mandal Formation at 4708 m. The MWD logs and the cutting descriptions indicated two thin oil bearing sand stringers in the interval from 4708 - 4713.5 m. A third sandstone came in at 4733 m where the well kicked. No cores were cut in this well. The well is classified as a minor discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/4-14