



# STARFISH, NORWAY

CEN TEK UROS CENTRALIZERS CAN BE ROTATED FOR MORE THAN 12 HOURS IN THE CASED AND OPEN HOLE AND COME OUT UNDAMAGED AND WITH NO BREAKAGES

<b>Region:</b>	Europe
<b>Location:</b>	Starfish 3-ST2

<b>Country:</b>	Norway
<b>Field:</b>	Starfish

## THE CHALLENGE

The operator needed to run 7" - 32.0#/ft liner into 9 1/2" OH passing through the 8.535" restriction of the 9 5/8" - 53.5#/ft casing with a TD of 3,600m. The customer was also expecting washouts.

The liner was partially rotated in the open hole on the way in, and it was rotated for approximately 12 hours at 20rpm in the cased hole on the way out.

The centralizers were also run through a whipstock window.

The liner was pulled due to hole conditions 40m short of TD.

## THE SOLUTION

55 x 7" x 9 1/2" Centek UROS centralizers

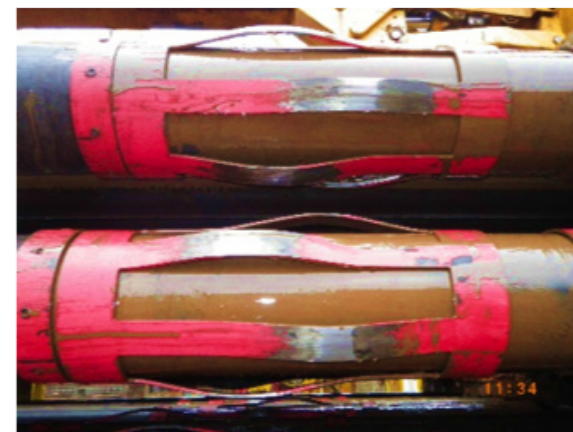
Rotating with low quality, weak, hinged bow spring centralizers could destroy them and

create serious problems. This is not the case with Centek centralizers.

## THE RESULT

OWS and the cementers inspected all the centralizers/collars and the only damage that could be seen was bending of some of the set screw sockets.

*The Centek UROS single piece construction gives it robustness and strength which exceeds that of competitor products. Although Centek does not recommend the re-use of centralizers when pulled out of hole this case study proves that even when subjected to extreme stresses the unique design of Centek centralizers meant that they remained in good condition and could be re-run.*



“ [We] will run the same centralizers again ”

Halliburton, Norway

EXCELLENCE TO THE CORE