CASE STUDY: NORTH AMERCIA OFFSHORE

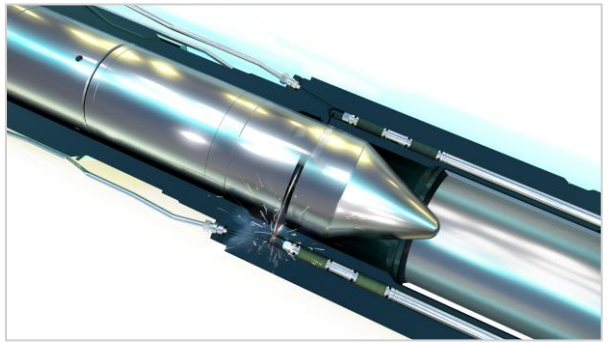
Wireline-retrievable safety valve successfully replaces failed TR-SCSSV in deepwater well using a light well intervention vessel

CHALLENGE

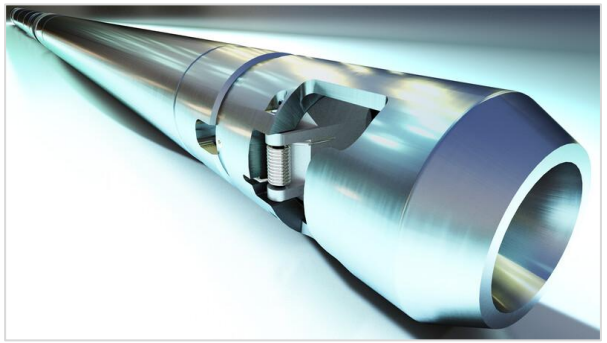
- Deepwater offshore environment
- The primary safety barrier, a Tubing-Retrievable Surface Controlled Subsurface Safety Valve (TR-SCSSV), had failed in the closed position, due to suspected loss of its 10,000 psi Nitrogen charge
- The failed TR-SCSSV was not designed to receive an insert, and no lower seal bore was available
- The chosen solution could not compromise the TR-SCSSV control chamber

SOLUTION

- Baker Hughes developed a custom-designed wireline insert valve (REACH™ wireline-retrievable safety valve) to replace the failed TR-SCSSV. The REACH WR-SCSSV is the industry's first and only solution to bring ultra-deepwater wells with failed tubing-retrievable safety valves back online faster, safer, and more economically than a deepwater workover.
- Phase one involved mechanically locking open the failed TR-SCSSV valve using the PRIME Dual-Stroker and Dimpling tool followed by an ultra-precise electro-mechanical cut using the MPC to create a hydraulic communication path.
- Phase two involved the installation of a seal-bore packer and the REACH WR-SCSSV.



MPC creating hydraulic communication path



REACH™ wireline-retrievable safety valve

RESULTS

Reduced costs by 60%

compared to rig-based workover

Custom-designed

multi-phase wireline solution for deepwater application

First installation

of WR-SCSSV in a subsea well

Light well intervention vessel

deployment eliminated the need for a rig

Improved safety and reduced cost

through pre-job testing and efficient execution

Baker Hughes

bakerhughes.com