CASE STUDY

HALLIBURTON

Luanda, Angola

Halliburton installs first VersaFlex® Big Bore ELH system in Angola

Operator saves three days of potential remediation and eliminates NPT related to supplemental casing adaptors

CHALLENGE

- Operator historically experienced NPT issues related to supplemental casing adaptors
- Welded restrictions discovered inside the casing string

SOLUTION

- Set and seal VersaFlex® Big Bore ELH system with integral hanger/packer design in single trip
- Smooth-form exterior allows hanger to move safely through tight tolerances and casing anomalies
- System provides casing placement flexibility

RESULT

- Saved approximately three days of remediation
- Set liner without any NPT, safety, or service quality issues
- First installation of VersaFlex® Big Bore ELH system in Angola

VersaFlex® Big Bore ELH

Overview

A major deepwater operator drilled offshore Angola for several years in an ongoing exploration campaign in two different blocks. Although the operator had supplemental casing adaptors in stock, nonproductive time (NPT) related to casing hanger issues was prevalent; thus, a reliable solution was necessary to allow the hanger to move safely through tight tolerances and casing anomalies. Halliburton installed the VersaFlex® Big Bore expandable liner hanger (ELH) system, known for its robust hanger and running tool. The installation was a success, and the liner was set to depth the first such installation in Angola.

Challenge

The Angola operator experienced NPT issues specifically related to supplemental casing adaptors. Welded restrictions were discovered inside the 20-in. casing. This presented concern because the liner hanger had to pass through a tight tolerance for more than 671 m (2,200 ft).

Solution

The VersaFlex® Big Bore ELH system was a natural fit for this application because the tool provides a liner-top packer and liner hanger in a single trip. The smooth-form exterior allows the hanger to move safely through tight tolerances and casing anomalies. Additionally, unlike a casing hanger, the system can be set and sealed reliably anywhere in the parent casing, independent of, and without the need for, cement or a landing adapter to seat the hanger. Multiple sealing elements were preferred to the delicate external machined profile of the casing hanger. This provided unprecedented casing placement flexibility because it is not necessary to hang off at the wellhead. The robust running tools can withstand more than 100,000 ft/lb of torque and have the capability to wash, ream, or drill the liner into position.

After thorough pre-job planning and careful examination of the casing between the operator and Halliburton, a VersaFlex Big Bore ELH system was installed in 1805 m (5,922 ft) of water depth from a drillship.

A total of
three days
saved

Result

The VersaFlex Big Bore ELH system was deployed flawlessly without any safety and service quality issues. There was no NPT during the operation and three days of remediation were potentially avoided. This saved the operator a significant amount of money with consideration to the uncertainties and risks associated with deepwater operations.

With a 97.5% reliability performance rating, the VersaFlex Big Bore ELH system helped Halliburton achieve a benchmark for its first installation in Angola's complex deepwater environment.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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