

Wellbore Cleanout Saves Customer USD 18 Million

OPERATION HELPS CUSTOMER AVOID 90 DAYS OF DEFERRED PRODUCTION AND A COILED-TUBING INTERVENTION

MALONGO, ANGOLA

CHALLENGES

- » A thick debris-laden, sludge-like material had prevented the fluid loss isolation barrier valve from remotely opening
- » The platform was only available for a short time frame to fix the nonfunctioning valve
- » If the valve could not be opened, it would be another three months before the platform would be available again

SOLUTIONS

- » Halliburton provided a wellbore cleanout operation to remove the sludge and ensure access to the valve
- » Electric-line stoker tool technology and a mechanical shifting tool were selected over a CT system for its faster rig-up time and smaller footprint
- » Sludge removal would enable the shifting tool to open the valve, thus allowing production to commence

RESULTS

- » A total of 25 electric-line runs successfully recovered 13.62 gal/226 lb of high-density sludge from the well
- » Following the wellbore cleanout and contingency operation, the well went on production at approximately 4,800 BOPD
- » The wellbore cleanout helped the operator save more than USD 18 million by avoiding 90 days of deferred production and a CT operation

OVERVIEW

On a highly deviated extended-reach well in deepwater Angola, an operator was unable to put the well on production. Once the upper and lower completions had been installed, the fluid loss isolation barrier valve was unable to be remotely open. A significant accumulation of a thick debris-laden, sludge-like material above the valve was identified as the source of the problem. To avoid deferred production of up to three months while waiting for the deepwater platform to be next available, a tight time frame for platform operations was necessary. The operator selected stoker tool technology with a mechanical shifting tool because of its light footprint and faster rig-up time compared to a coiled tubing (CT) system. Additionally, Halliburton ran a wellbore cleanout operation to remove the sludge and ensure access to the valve. Following the cleanout operation, the contingency shifting tool successfully opened the valve, and the well went on production at approximately 4,800 BOPD. The operation saved 90 days of deferred production time, valued at approximately USD 18 million, and eliminated the need for CT operations that would have added to the total overall well costs.

SOLUTIONS

Once it was determined that a heavy debris-laden, sludge-like material above the valve was the source of the problem, a quick solution was required. In addition to the tight time frame, there was a necessity to activate the valve override mechanism, so the solution needed to be mobilized and rigged up quickly. A CT system was considered, but the mobilization and rig-up times would have been too long to meet the platform deadline. Milling of the valve was also considered, but this would have meant a change in the system design integrity and in future intervention work. The operator ultimately chose stoker tool technology with a hydraulic shifting tool because of its light footprint and faster rig-up time compared to a CT system.



Halliburton performed a wellbore cleanout operation that helped the operator avoid 90 days of deferred production – a savings valued at approximately USD 18 million.

Ultimately, Halliburton ran a wellbore cleanout operation to ensure access to the valve. A total of 25 electric-line runs were made to clean out the sludge, and Halliburton recovered 13.62 gal/226 lb of high-density sludge from the well before the contingency shifting tool successfully opened the valve. The well went on production at approximately 4,800 BOPD.

RESULTS

The electric-line wellbore cleanout and valve-opening operation saved 90 days of deferred production, valued at approximately USD 18 million. The cost of a CT intervention would have also added to the total overall well costs. The customer noted, "I would like to express my special gratitude to everyone who made a direct or indirect contribution to the successful opening of the valve on the well."

The customer has requested this contingency for all wells where fluid loss isolation barrier devices are installed.



The wellbore cleanout also helped the operator avoid a coiled-tubing intervention for additional cost savings.

**90-DAY
SAVINGS**

**USD 18 million
VALUE**

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