

Operator Reduces Progressive Cavity Pump Installation Costs by About 40%, South America

KUDU insert system eliminates the necessity of retrieving and rerunning tubing to install pumps, saving significant rig time

To improve the economics of marginal wells, an operator deployed an insert system that simplifies and expedites progressive cavity pump (PCP) installation and recovery.

Reduce cost of PCP deployment and retrieval

An operator has numerous marginal wells in South America that produce fluids with high water and sand content. PCPs are used for artificial lift, and minimizing their installation and operating costs is key to the economics of these wells.

A conventional PCP stator is connected to the tubing string. Installing or removing the stator requires retrieving all the tubing joints and running them back in the well, an operation that was consuming 48–60 hours, depending on the well depth. The operator wanted to minimize costs, NPT, and deferred production.

Eliminate the need to pull the tubing

Schlumberger recommended the *KUDU insert system*, which enables PCP installation in (or removal from) the production tubing using a sucker rodstring, eliminating the need to pull out the tubing and run it back in. Moreover, the operation can be conducted with a flush-by unit, which has a lower cost compared with that of a workover rig. The net result is significant savings in time and costs.

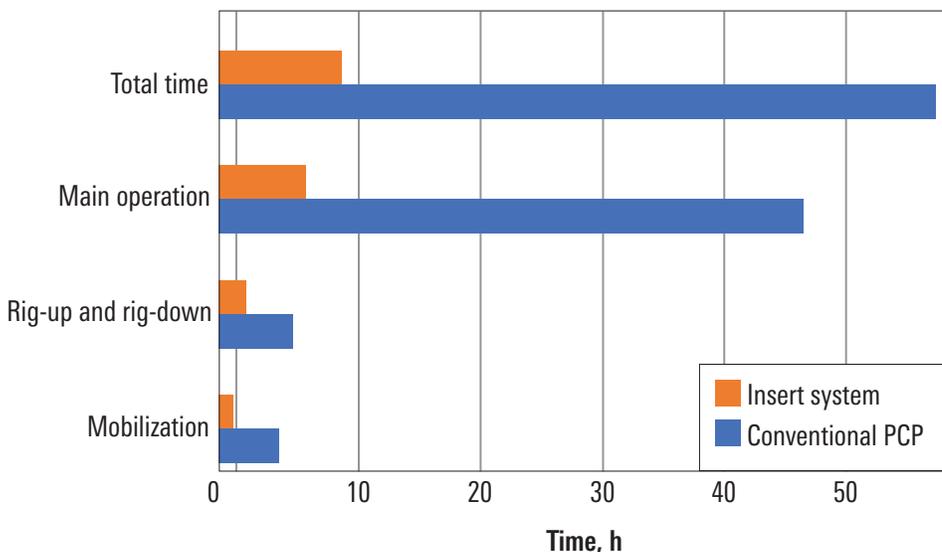
Because the wells have a pump seating nipple (PSN) installed in the tubing string, the *Type B configuration* was selected for the insert system. It seals against the PSN, preventing pumped fluid from draining back down the tubing. A bidirectional torque anchor prevents rotation in any direction, protecting the seals and allowing the pump to operate.

Achieve 40% savings despite challenging conditions

The system was installed in 26 wells. Despite the challenges presented by high sand content, installation costs decreased by about 40%. The insert system has proved to be a robust, reliable, and cost-effective solution.

“Using the insert PCP from Schlumberger has reduced our workover cost by 40%. This technology has been applied in wells with low production rate to decrease opex.”

PCP Technical Manager



Using KUDU insert systems instead of conventional PCPs reduced installation time from a high of nearly 60 h to less than 10 h.