

Arabian Gulf

Expandable liner hanger (ELH) system saves significant rig time

Full single-trip VersaFlex® XSL expandable liner hanger system with soft-release ball seat streamlines screen liner installation

CHALLENGE

- Highly deviated well with long lateral section
- Optimize current screen installation to provide cost savings

SOLUTION

VersaFlex® XSL ELH system with wash-down running tool and SRBS to:

- Allow for rigorous liner manipulation to reach target depth
- Allow seamless treatment-fluid displacement before and after setting the hanger in a single trip

RESULT

- Successfully reached TD without need to pull liner
- Achieved hanger packer activation per plan
- Regained circulation post-hanger packer setting without pressure surge event or time delays
- Successfully completed treatment-fluid displacement in single trip with liner running tools

Overview

A operator in the Middle East actively sought ways to streamline and enhance screen liner installations. Existing openhole fluid-treatment setups require a secondary trip to pump treatment fluid into the screen section of the lower completion. This not only imposes additional operational costs but also consumes valuable time for offshore applications. Thus, the operator was committed to identifying a more efficient and cost-effective solution to address this challenge.

Challenge

Drilling highly deviated wells with extended lateral sections such as this can be a time-intensive process. The operator recognized a need for cost-saving measures and actively explored options to enhance current screen liner installation practices.

Solution

To help streamline operations and maximize efficiency, Halliburton recommended a single-trip lower completion installation combined with a robust liner hanger packer system and fluid treatment operation. The field-proven VersaFlex® XSL expandable liner hanger (ELH), renowned for its fully compliant metal-to-metal (MTM) seal, is a game-changer when combined with a wash-down running tool and the soft release ball seat (SRBS). Together, these systems offer highly cost-effective solutions tailored for this specific application. This robust system not only ensures the string reaches the intended setting depth, but also facilitates a seamless treatment-fluid



SRBS tool setup

displacement process within the screen annulus during hanger installations. During hanger packer activation, the SRBS allows as many operational pressure cycles as necessary without time limitations. Once hanger packer activation is complete and the running tool released, the SRBS is actuated mechanically to create a bypass that allows circulation to resume through the inner string without causing hydraulic shear/surges to the formation. This innovation allows the operator to efficiently pump the treatment fluid inside the screen and eliminates the need for a second trip, which streamlines well objectives.

Result

Since its successful introduction in Feb 2023, the single-trip expandable liner system is the operator's preference for screen installations. This solution has minimized rig time associated with fluid-treatment operations and enhanced operational flexibility and risk mitigation. As of March 2024, approximately 45 installations (both inside 9 5/8-in. and 7-in. casing) have been completed with many more installations planned.



SRBS installation

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