Schlumberger

Saltel Xpandable AZIP Packers Pass Tight Spots to Enable Isolation for Efficient Acidizing in Iraq

Robust slim packers run smoothly and rapidly through segments of high dogleg severity and wellbore restrictions

CHALLENGE

Isolate two segments of a carbonate well with high dogleg severity (DLS) and wellbore restrictions that preclude the use of conventional swell packers.

SOLUTION

Deploy slim Saltel Xpandable AZIP* annular zonal isolation packers and expand them in place.

RESULTS

Isolated multiple zones with up to 3,000-psi pressure during acid stimulation.

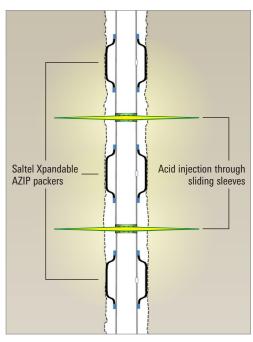


Wellbore restrictions limit access and damage swell packers

An oil producer well was drilled in 2017 in the Bekhme Formation of the Tawke Field Cretaceous reservoir in Iraq and the openhole section stimulated with a limited coiled tubing acid wash. Production results were disappointing, and the operator prepared to recomplete the well.

The new completion was designed to compartmentalize two key segments of the well with sliding sleeves, enabling more precise targeting of the acid and ensuring thorough treatment in each segment. The operator usually ran swell packers to isolate the annulus between sleeves.

However, this well was drilled with DLS up to 28°/100 ft, and wellbore restriction limited access to the openhole segment. As a result, conventional swell packers could not be used in the well.



The Saltel Xpandable AZIP packers were run into the well through tight curves and restrictions, delivering the isolation needed for a multistage acid stimulation operation.

Robust metal packers run smoothly, even in in tight spaces

Schlumberger recommended Saltel Xpandable AZIP packers because the element length (4 ft) and slim run-in-hole OD (5.5 in) would enable smooth deployment through the high-DLS area and wellbore restriction. The robust technology enables running through tight spots with controlled and limited pushing, pulling, and rotation.

Rapid expansion provides isolation required for acid job

The Saltel Xpandable AZIP packers were run to depth and expanded in place rapidly, so the operator did not have to wait for elastomers to swell, as would have been required with conventional packers.

Each segment was then acid stimulated at pressures up to 3,000 psi with pressure curves demonstrating that the packers provided complete and robust isolation between segments.