

Proppant-delivered solution for perennial scale encounters

In a single-treatment, SCALEGUARD shuts down scaling despite excessive produced water volumes

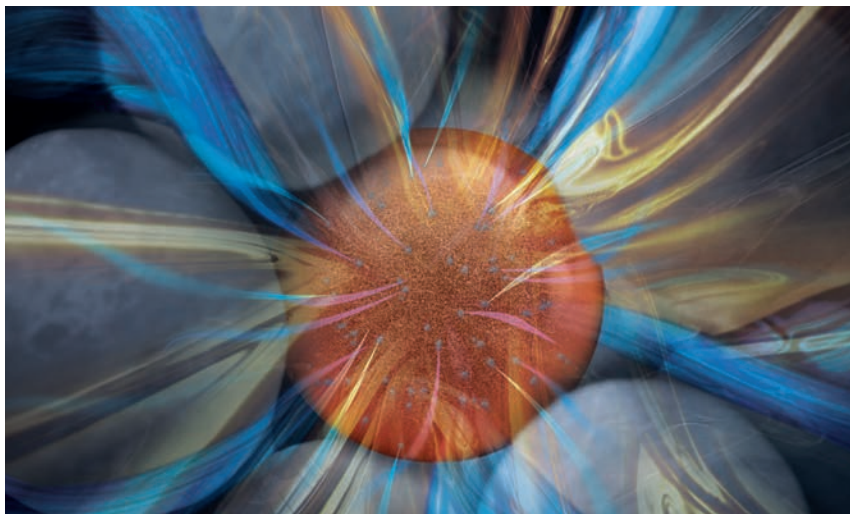
Permian Basin, West Texas

The challenge

Owing largely to produced water volumes that reached a cumulative 170,000 bbl over a nine-month period, habitual scale deposition in the Wolfcamp formation restricted maximum production from the operator's unconventional Permian Basin wells. Repeated treatments of conventional liquid scale inhibitors failed to stem the rapid and severe scale deposition, prompting the operator to seek a more sustainable alternative.

The solution

Upon CARBO's recommendation, the operator incorporated the water-activated SCALEGUARD proppant-delivered scale-inhibiting technology in a 24-stage Wolfcamp well to be stimulated with 100-mesh, 30/50 white and 30/50 resin-coated sand proppant. SCALEGUARD comprises a highly conductive ceramic proppant with engineered porosity that is then infused with scale inhibitors. Placed directly throughout the fracture network, SCALEGUARD attacks scale at its point of origin but utilizing a unique controlled release technology that inhibits scale at a designed rate. Following a water chemistry analysis, CARBO specialists engineered a blend of SCALEGUARD and 30/50 resin-coated sand proppant with a well-specific minimum inhibitor concentration (MIC) and placement release rate with the aim of extending the treatment duration.



SCALEGUARD comprises a highly conductive ceramic proppant with engineered porosity that is then infused with scale inhibitors. The SCALEGUARD technology was chosen for a 24-stage Wolfcamp well.

Well Data

Location: Reeves County, Texas

Operator: Independent

Formation: Wolfcamp

Well type: Oil

No. of stages: 24

Produced water volume: 170,000 bbl over 9 months

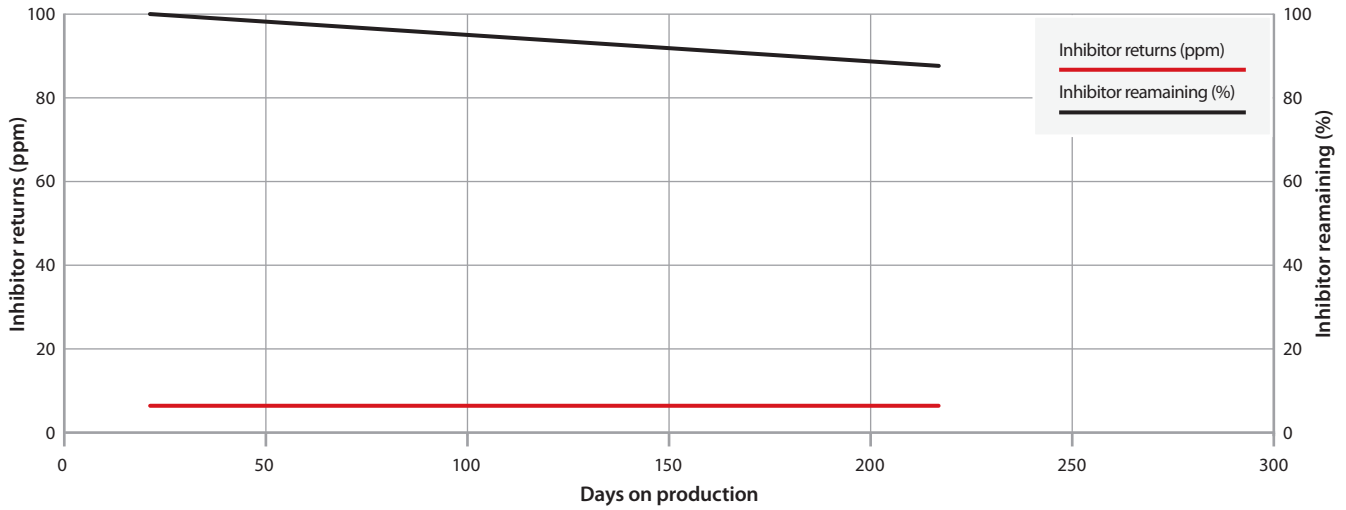
Proppant types: 100 mesh, 30/50 white and 30/50 resin sand, mixed with SCALEGUARD proppant-delivered scale-inhibiting technology



The results

Nearly one year after the initial SCALEGUARD treatment, the operator has encountered no further instances of scale deposition and plans to incorporate SCALEGUARD in all upcoming wells targeting the water-prone Wolfcamp reservoir.

Inhibitor residual data



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