ZetaFlow[®] Chemical Additive Restores Production to 105 BOPD in Sandy, Scale-Prone Well

Objectives

- Restore production on a scale-prone well that was shut in because of sand infiltration. The operator had performed five previous well-cleaning interventions, but sand infiltration recurred each time and halted production within 7 days.
- Optimize drawdown pressure.

Our Approach

- Weatherford designed a custom treatment plan using chemical additives compatible with the hostile characteristics of the formation fluids, which included a high tendency to form calcium-carbonate scales.
- On-site stimulation specialists performed an organic-based pre-flush to clean the perforations.
- The team deployed the ZetaFlow chemical additive to provide fines control. They controlled drawdown during treatment and verified pressure using a downhole sensor. After the treatment, drawdown was maintained at 170 psi (1.2 MPa).
- The well resumed production at an average rate of 170 BOFD (27 m³/d) and 105 BOPD (17 m³/d) with a 38% basic sediment and water cut.

Value to Client

- The well continues to produce at a rate of 105 BOPD (17 m³/d) with zero sand and fines migration problems.
- In addition to restoring production, the ZetaFlow additive reduced the sediment and water cut from 50% to 38% in the two months following the treatment.
- The sand-control treatment enabled the operator to reduce drawdown 85% from 1,150 to 170 psi (7.9 to 1.2 MPa).



Weatherford reduced pressure drawdown, cleaned out sand, and restored production.

LOCATION

Rionegro, Santander, Colombia

WELL TYPE Onshore, oil

FORMATION La Paz

HOLE SIZE 8-1/2 in.

CASING TYPE AND SIZE 7 in., 26 lb/ft, N-80, BTC conn.

TUBING TYPE AND SIZE 3-1/2 in., N-80

RESERVOIR TEMPERATURE 170°F (77°C)

RESERVOIR PRESSURE 1,683 psi (11.6 MPa)

TOTAL DEPTH 8,500 ft (2,591 m)

SECTION TREATED 8,475 to 8,492 ft (2,583 to 2,588 m)

PRODUCTS/SERVICES ZetaFlow chemical additive



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