



Weatherford®

REAL RESULTS

MetalSkin® Solid Expandable Cased-Hole Liner Shuts Off Water Zone, Maximizes Throughbore Diameter for Production Readiness

Objectives

- Shut off existing water zone in a previously abandoned well. Six previous cement squeeze attempts had failed.
- Produce from new zones to be perforated below the existing.

Results

- The *MetalSkin* system was installed in a single trip (a single joint, bottom up) to shut off the existing water zone. Compliant expansion of the solid expandable *MetalSkin* liner eliminated the base casing/expandable casing annulus. Elimination of the annulus prevented the trapping of any fluids that could cause corrosion or facilitate the collapse of the casing as a result of extreme heating of the well during temperature cycling.
- Perforations were completely shut off.
- Before the *MetalSkin* installation, fluid pumped away at 500 PSI (3,447 kPa); after, pressure was held at 1,000 PSI (6,895 kPa).

Value to Client

- Use of the *MetalSkin* system provided a reliable mechanical seal and preserved the maximum diameter post-expansion throughbore possible, making this previously abandoned well ready for potential production from new zones.

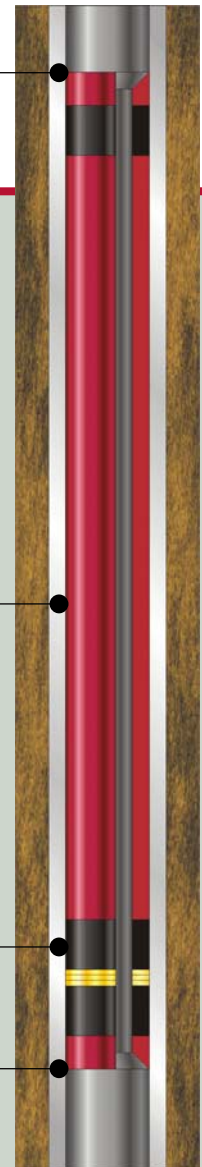
5 1/2- x 7-in. *MetalSkin* liner expanded top at 2,183 ft (655 m)

Perforations at 2,196 to 2,214 ft (669 to 675 m)

MetalSkin integral joint

C-ring hanger, with 70D NBR elastomers above and below, at 2,220 ft (677 m)

Bottom of *MetalSkin* liner at 2,220 ft (677 m)



Location
Texas, USA

Casing
7 in., 23 lb/ft

Expansion Pressures and Forces

- C-ring: 1,700 PSI (11,721 kPa)
- Expandable liner hanger: 1,700 to 1,900 PSI (11,721 to 13,100 kPa)
- *MetalSkin* integral joint: 1,700 to 2,000 PSI (11,721 to 13,790 kPa)
- Average upward expansion force: 6,000 to 12,000 lbf (26,689 to 53,379 N)

Products/Services

MetalSkin cased-hole liner system