

**CHALLENGE**

Wells in this field typically have CaSO<sub>4</sub> scale problems. The scale is usually treated with HCl acid. The client was wanting to try the Blue Spark WASP® tool to increase the effectiveness of the acid, but needed to use an environmentally friendly ("green") acid to protect the logging cable. They were concerned whether good results could be achieved using WASP® with "green" acid instead of regular acid.

**HIGHLIGHTS**

Conventional oil field  
Vertically drilled  
Perforated

**LOCATION**

Lea County, New Mexico

**CONDITIONS**

Depth: 4,000 ft (1,200 m)  
San Andres carbonate



Chemical Treatment

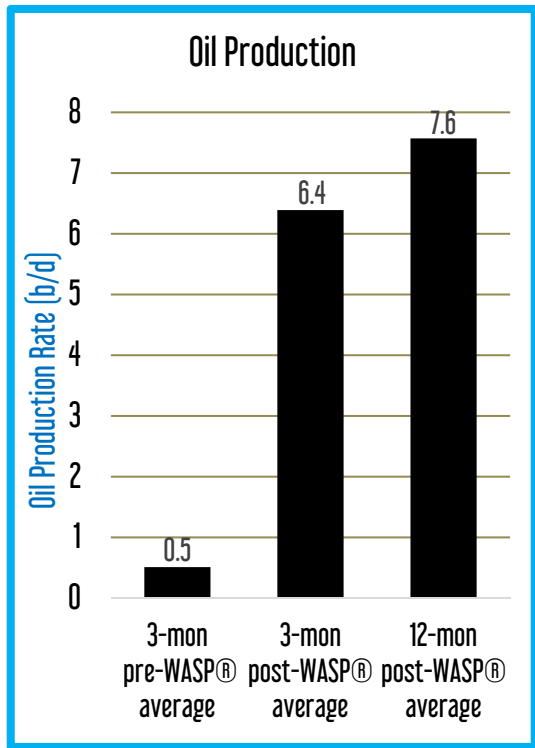


Scale Removal

**OUTCOME**

- The well saw an immediate increase in oil production
- The average oil production for the first 3 months was 6.4 b/d, an 1180% increase
- The average oil production for the first 12 months was 7.6 b/d, a 1420% increase
- The client was extremely pleased with the outcome, and will continue to look for other opportunities to use WASP® with "green" acid

**1400% increase in oil production maintained for 12 months**



**SOLUTION**

Improve connectivity to the reservoir by removing CaSO<sub>4</sub> scale and clearing out blockages using electro-hydraulic stimulation technology in "green" acid

- The wellbore was cleaned and then "green" acid was spotted at the interval to be treated
- The Blue Spark WASP® 275 (Wireline Applied Stimulation Pulsing) tool was run on third-party E-Line to the perforated interval, where it was pulsed in the "green" acid
- The perforated interval of more than 100 ft (30 m) was treated in less than 24 hours with our wireline conveyed tool to remove the scale and allow the acid to penetrate more effectively
- The well was put back on production and monitored