CHALLENGE

A Western Canadian E&P operator was looking for a solution to enhance oil recovery in a mature conventional oilfield it was operating. Oil production was lost two months after well completion resulting in only water being produced. Conventional stimulation techniques were considered to address this challenge. Upon evaluation, they were deemed either not economical, or not applicable, as they had proven ineffective in the past. This was an opportunity for the oil producer to evaluate the WASP® technology in conjunction with a planned workover on a production well.

HIGHLIGHTS

Conventional oil well (33 API oil)
Vertically drilled
Perforated completion
Artificial lift

LOCATION

Central Alberta, Canada

CONDITIONS

Depth: 1,500 m (5,000 ft)
Temperature: 20 °C (68 °F)
Glauconite sandstone
Porosity: 24%
Perm: 200 mD

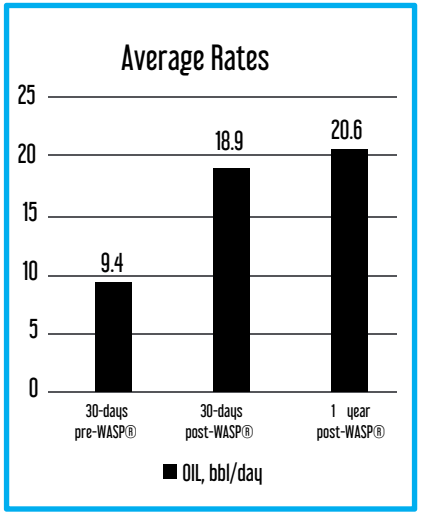
Producing Wells

OUTCOME

- Client data from the WASP® treated well showed an average production increase from 9.4 bbl/day to 18.9 bbl/day over a one-month period, based on previous test results, a dramatic 100% increase in just oil production.
- Public data for the next year showed an average of 20.6 bbl/day, a 119% increase.
- The operator will continue to assess opportunities in its production pool to implement WASP® technology to increase production, in other planned workover activities.

100% increase
over 30-day period

119% increase
during the first year



SOLUTION

Improve connectivity to the reservoir in cased hole, using electro-hydraulic stimulation technology.

- Mature oilfield production well was treated with Blue Spark WASP® (Wireline Applied Stimulation Pulsing) technology, to increase production.
- Approximately 1.5 m (5 ft) of perforated interval were treated in the production casing.
- The WASP® treatment was completed in conjunction with a workover on the oil well. Production rates and fluid levels were both monitored for comparison to pretreatment values.

BLUESPARK