

CHALLENGE

Well had initially been a producer that was converted to an injector. Injection rate was adequate for 10 years, then sharply declined. The original interval with an additional 20% was re-perfed with marginally better results, but within 2 years the pressures increased and rates dramatically decreased. The client wanted to try a different type of technology to obtain better, longer lasting results.

HIGHLIGHTS

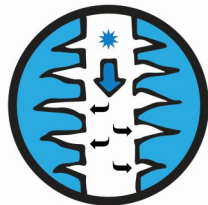
Heavy Oil CHOPS field
Vertically drilled

LOCATION

Western Canada

CONDITIONS

Depth: 650m (2,100ft)
Unconsolidated Sandstone

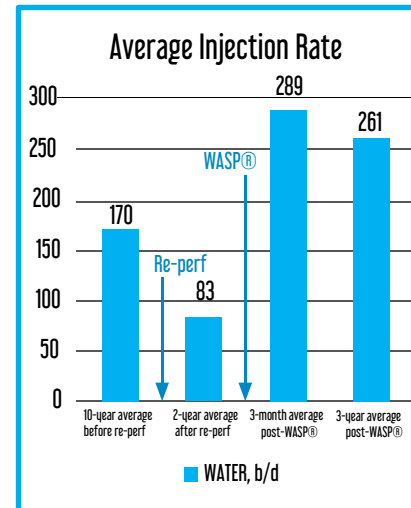


Injection Wells

OUTCOME

- The wellbore was reconnected to the reservoir, as pressures decreased and injection rates increased.
- Public data from the WASP® treated well showed an average injection increase from 83 b/d to 289 b/d for 3-months post stimulation.
- Sustained injection over more than three years has averaged 54% above initial 10-year rate.

250%
increase in
injection rate



SOLUTION

- Improve connectivity to the reservoir by clearing out blockages using electro-hydraulic stimulation technology.
- Unconsolidated sandstone (CHOPS) reservoir was treated with Blue Spark WASP® (Wireline Applied Stimulation Pulsing) to improve injectivity.
- No special tools or equipment were required on location to complete the remediation operation, other than third party E-Line.
- Approximately 8 m (26 ft) of perforated interval were treated with our wireline conveyed tool.
- Injection rates and pressures were both monitored for comparison to pretreatment values.