

CHALLENGE

The need for additional fresh water in Northern Alberta, Canada, to support ongoing SAGD (steam-assisted gravity drainage) –type production. A cased hole completion with a wire-wrapped sand screen and a gravel pack completion with an ESP pump, failed to yield expected desirable rates of water production. Known remediation techniques were reviewed and deemed unsuitable.

HIGHLIGHTS

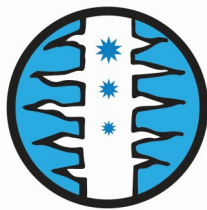
Onshore
Water source well, supporting SAGD
Vertically drilled

LOCATION

Northern Alberta, Western Canada

CONDITIONS

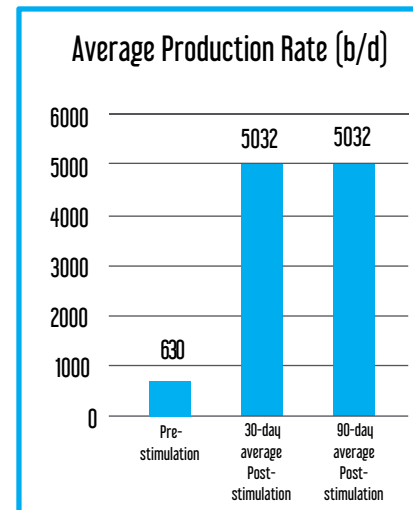
Depth: Shallow
Temperature: 25°C (77°F)
Unconsolidated sandstone



New Well

OUTCOME

- Client data from the WASP® treated well showed an average production increase from 100m³/d (630 b/d) to 800m³/d (5,032 b/d) over a one-month period.
- Sustained production over 90 days maintained an average of 800 m³/d (5,032 b/d)
- Client is evaluating the continued use of electro-hydraulic stimulation in other similar source wells, especially where inflow expectations are not being met.



SOLUTION

Improve connectivity to the reservoir through a wire-wrapped sand screen gravel pack completion, using electro-hydraulic stimulation technology.

- In consultation with our client, the well was evaluated to confirm its suitability in terms of temperature and other factors, and subsequently treated with our Blue Spark WASP® (Wireline Applied Stimulation Pulsing) technology.
- Approximately 20 m (65 ft.) of sand screen were treated with our wireline conveyed tool.
- No special tools or equipment were required on location to complete the remediation operation, other than third party E-line.
- The remediation treatment took less than one day to complete, with immediate, significant, and sustained rates observed during production testing conducted shortly thereafter.