CHALLENGE

The primary oil producing zone of the well of a major operator was converted to water injection (dump flood) but the injection rate had fallen over time to zero. It was thought that fines were likely causing Skin damage. A re-perf was done 2 years earlier but did not result in any improvement. In addition, aquifer zones in the same wellbore were now producing at less than 20% of their original water rate.

HIGHLIGHTS

Deviated, offshore well
Perforated completion

LOCATION

Malaysia

CONDITIONS

Depth: 1,500 m (4,900 ft)
Temperature: 90 °C (194 °F)

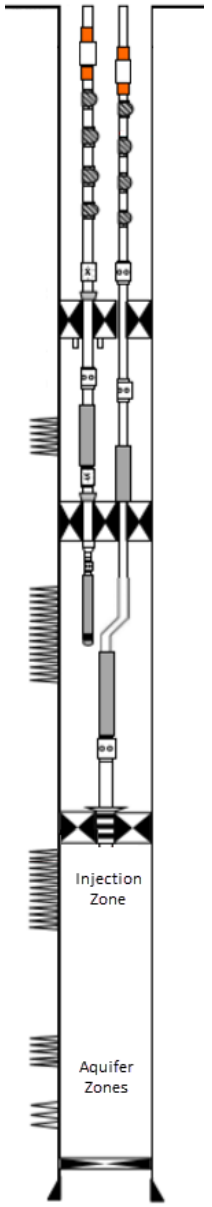
Injection Well

OUTCOME

- WASP® stimulation was successful in treating the aquifer zones, returning the water production to over 90% of it's original value
- WASP® stimulation was also successful in treating the injection zone, which at 40° deviation could not effectively be treated by re-perforating due to the proximity to the end of the tubing
- The injection zone, which had never taken fluid, was now taking fluid at 40% of it's original production value

Injection zone takes water for first time in years

350% increase in aquifer water production rate



SOLUTION

Improve connectivity to the reservoir clearing out blockages using electro-hydraulic stimulation technology

- The slimhole 212 WASP® tool was deployed on 3rd party wireline through tubing into the wellbore
- WASP® stimulation was carried out, treating 17 m (56 ft) of perforations
- The well was put back on injection
- An MPLT was logged to confirm the flow rates

BLUESPARK