CASE STUDY: Ecuador

Improved production rates, well economics with a RESTORE remedial treatment and an optimized ESP Installation

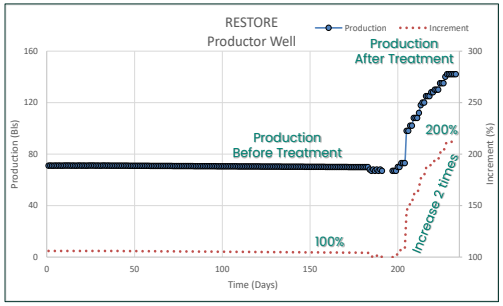
CHALLENGES

- High water-cut (97% BS%W) well
- Low production rate (66 BOPD)
- Operator sought a production solution to:
  - Improve production by eliminating near wellbore skin damage without affecting formation wettability
  - Provide a fast return on investment for the remedial treatment
  - Maximize production with minimal energy consumption
  - Reduce overall lifting costs

SOLUTION

A multi-disciplined Baker Hughes team performed reservoir analysis and designed an application to remove skin damage, recover wettability, eliminate organic deposits and install optimum artificial lift equipment. As part of this effort, the team:

- Identified near-wellbore skin damage due to organic deposits (asphaltenes and paraffin)
- Removed skin with a RESTORE™ treatment employing a mutual solvent, multifunctional microemulsions, and production enhancement and confirmed treatment compatibility/stability
- Designed and installed ESP equipment (P35) suitable for the production conditions and offering optimum energy consumption



After the integrated production solution was implemented, the operator's production more than 2X while water cut was maintained at 95%.

RESULTS

150 BOPD
production rate

>220%
production increase over 5 months

95%
steady water cut

<30 day
payback on incremental investment

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