Preserving longevity of gas production and well integrity over entire reservoir life

Intervention using 3M™ Ceramic Sand Screens

Customer challenge
- Site was an old gas well, started in 1983
- Implemented after several well treatments and work-overs
- In 2009 the well was shut in because it was unmanageable at 1,250 psi flowing pressure
- Due to the depleted reservoir, high velocities are expected even at moderate gas production rates
- There was a need for a simple and cost-effective erosion resistant solution to make gas production economical again

Why ceramic sand screens?
- Unlocking production potential using retrofit solution
- Rig-less deployment
- Simplicity of retrofit operational planning
- Preserving longevity of production over entire reservoir life

Results
One well was equipped with a 3M™ Ceramic Sand Screen System in 2010 and has been producing ever since.
- Production rates: stabilized at 2MMSCFD
- Successful deployment on slick line
- Screen was hanging on a landing nipple above the perforations
- Restoring sand control allowed increased production rates compared to the rates prior to intervention
- Incremental gas production increase since February 2010
- 7KUSD daily production since February 2010
- Intervention payback: one week

Customer key decision drivers
The decision matrix included:
- Ease of sand control deployment
- Quick payback

Economic comparison with other options
- Well shut in
Technical references

SPE-176225-MS: Cased Hole Ceramic Screen Cutting Completion Cost for Marginal Reservoir: Application in Tunu Field

OTC-25106-MS: An Innovative Approach of Revival for Damaged Wells in High Erosive Environment Using Ceramic Sand Screens – BG Group

SPE 146721: An Innovative Milestone in Sand Control – Maersk Oil & Gas

SPE 160327: Ceramic Sand Screens for Sand Control in Unconsolidated Reservoirs (with Fines Content) – RAG

SPE 166092-MS: Ceramic Sand Screen: Ceramic Sand Screen – An Innovative Downhole Sand Control Solution for Old and Challenging Cased Holes – BG Group

MOC-Egypt- April 2016: Ceramic Sand Screen Systems - A Unique Down-Hole Solution for Sand Control

Sand Control with Ceramic Screens in Unconsolidated Reservoirs Demonstrated in the Mature Gaiselberg Oilfield. OIL GAS European Magazine, 2/2012, p. 74–78

SPE-182278-MS: Sand Control in Corrosive and Erosive Downhole Conditions at High Temperatures – 3M Technical Ceramics