

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

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

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

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