



Kinetics Controls
& Innovation Ltd

RIGLESS WELL INTEGRITY & INTERVENTION ISOLATIONS

KCI Sealant Technology saves client approximately USD 30 million

One of the Middle East's biggest exploration and production companies has a huge well stock and an increasing number of these wells are located in mature fields requiring frequent Well Intervention. The combination of ageing wells, harsh desert environment and corrosive well fluids present the operator with a big challenge in terms of maintaining life cycle Well Integrity. Therefore, there is a need to seek quick, innovative and cost-effective solutions that can increase safety, reduce well integrity deviations and production deferrals.

One of the most common Well Integrity failures experienced in the field relates to annuli communication through the Wellhead Hanger Seals. These failures are typically detected during Planned Maintenance Routines (PMR's) as part of the company's Well Integrity Program.

Depending on the type of Injection Fitting, these leaks had been traditionally addressed by either pumping hard plastic packing type material into the voids which can be unreliable and in most cases, require a costly hoist or rig work over operation to change out the Christmas Tree and/or the applicable Wellhead Spool Piece.

An innovative leak sealing technology has been introduced by KCI which uses a time activated sealant that is deployed in its liquid phase into the voids of wellhead sealing areas. Once in place the sealant converts to a resilient, self-bonding and pressure-energized solid material that acts as a static pressure-retaining barrier to re-establish full Well Integrity of the Wellhead. The product remains stable from -50 to +250°C so there is no expansion or shrinkage of the cured sealant.

This technology offers a safe, quick and cost-effective solution for Rigless Wellhead Integrity Repairs.

KCI services have been successfully deployed in this region since 2013 and over 300 jobs have been completed to date with 100% success rate.

To date, this has resulted in approximately USD 30 million in cost savings on production deferrals and associated rig costs on workovers for the client.

