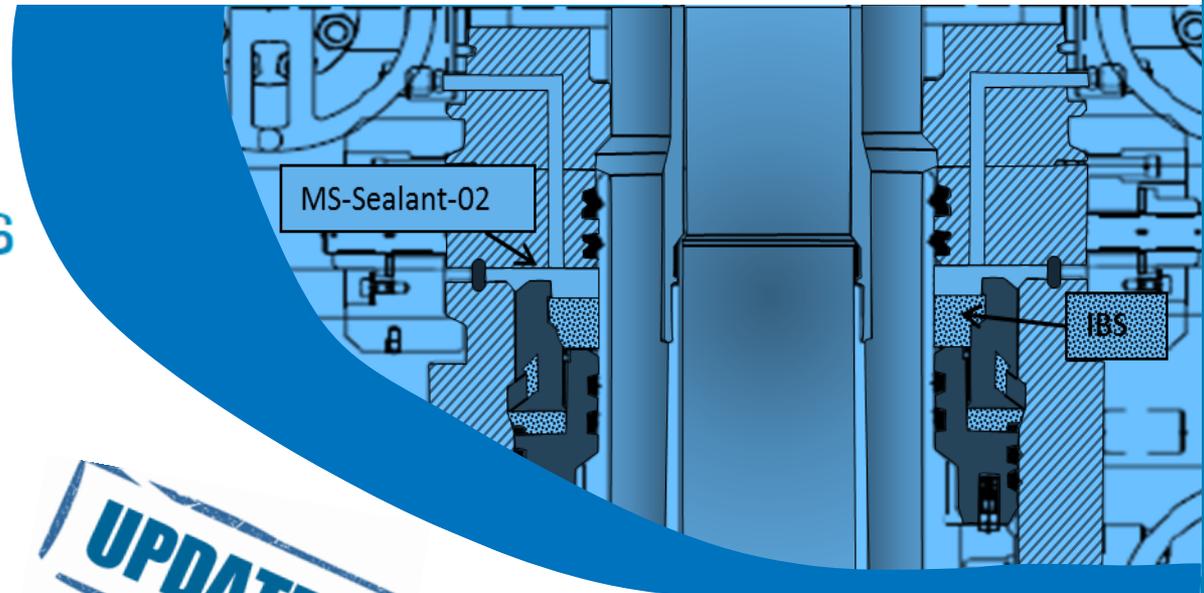




Kinetics Controls
& Innovation Ltd

www.kcilttd.co.uk

IBS & MS-Sealant Leak Sealing Solution

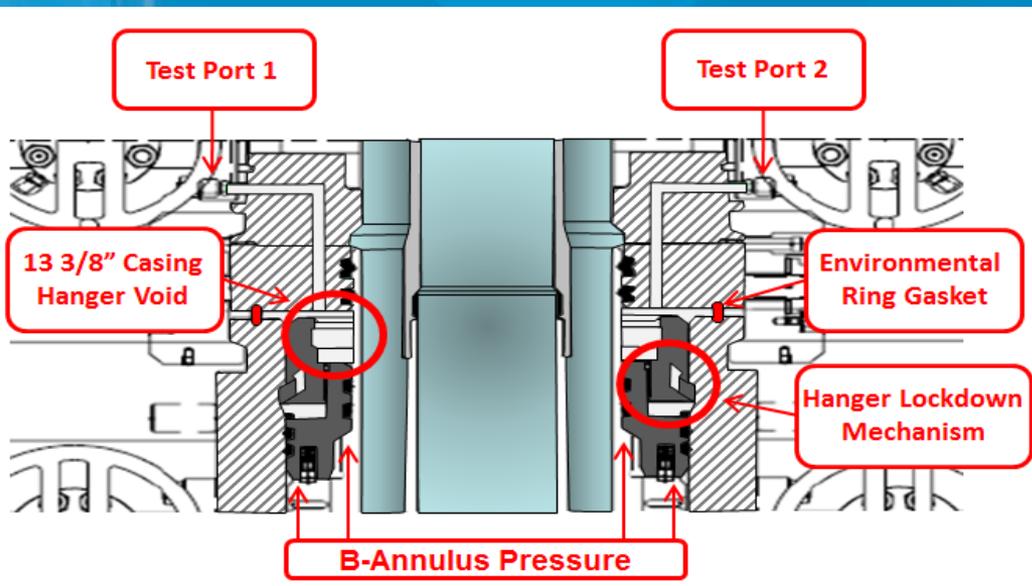


UPDATED

“Successful Rigless Hybrid Wellhead Isolation
In South East Asia Using IBS & MS-Sealant”



Rigless Wellhead Hybrid Isolation using IBS & MS-Sealant

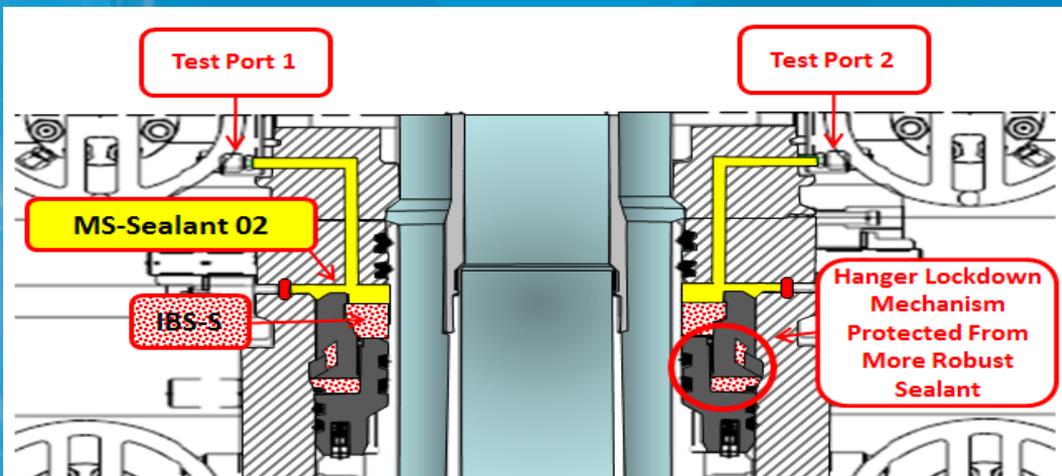


Background

- ❑ KCI were asked by a Major Oil and Gas Operator in South East Asia to provide an isolation to prevent the B-Annulus pressure entering the 13 3/8" Casing Hanger Void.
- ❑ During KCI's evaluation process the leak was verified. The B-Annulus pressure was vented from the Casing Hanger Void and it built up to full B-Annulus pressure overnight.
- ❑ This test was carried out twice with the same result verifying the failure.
- ❑ A standard Sealant deployment operation was not suitable for its application as the Casing Hanger Locking Mechanism must be protected to ensure it can be recovered at a later date. IBS-S was used to safeguard the moving parts as it can be broken back to fluid for a trouble free Hanger recovery operation.
- ❑ The Well was shut-in due to this serious Well Integrity issue.



Rigless Wellhead Hybrid Isolation using IBS & MS-Sealant



Deployment Detail

- ❑ Rigged up KCI's Test Manifold and injected Test Fluid to verify the Leak Rate.
- ❑ Activated, Mixed & Injected 8 Litres of IBS-S. It sinks in oil and fills all available gaps in the Casing Hanger Locking Mechanism.
- ❑ Allowed the IBS-S to fully cure.

- ❑ Activated, Mixed & Injected 8 Litres of MS-Sealant 02 (low viscosity sealant) above the cured IBS. This created a PBU (Pressure Build Up) which compressed and energised the IBS-S. Allow the MS-Sealant to fully cure under injection pressure.
- ❑ Once the MS-Sealant 02 had fully cured, a Leak Off Test was performed at the Injection Port with full Annulus Pressure from below – This resulted in a Zero PBU.
- ❑ The Isolation was successful and the Well was safely brought back online.

Objective Achieved

Operation successfully completed.

This Value Adding, Rigless Isolation Operation saved the Well owner from a potentially time consuming and costly Wellhead Workover repair operation.