

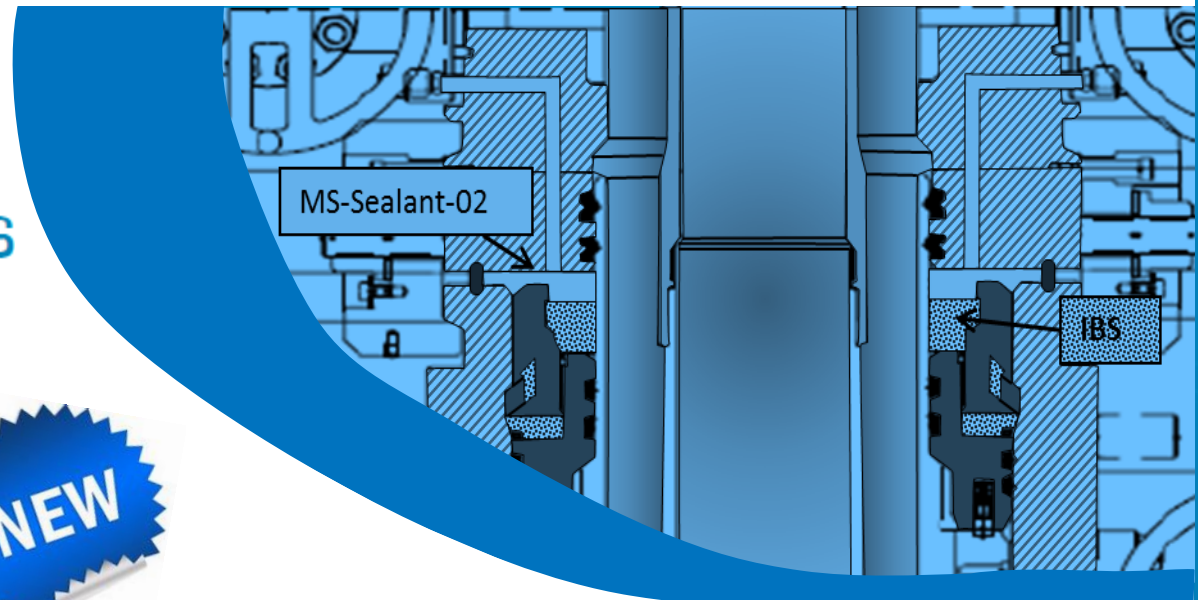


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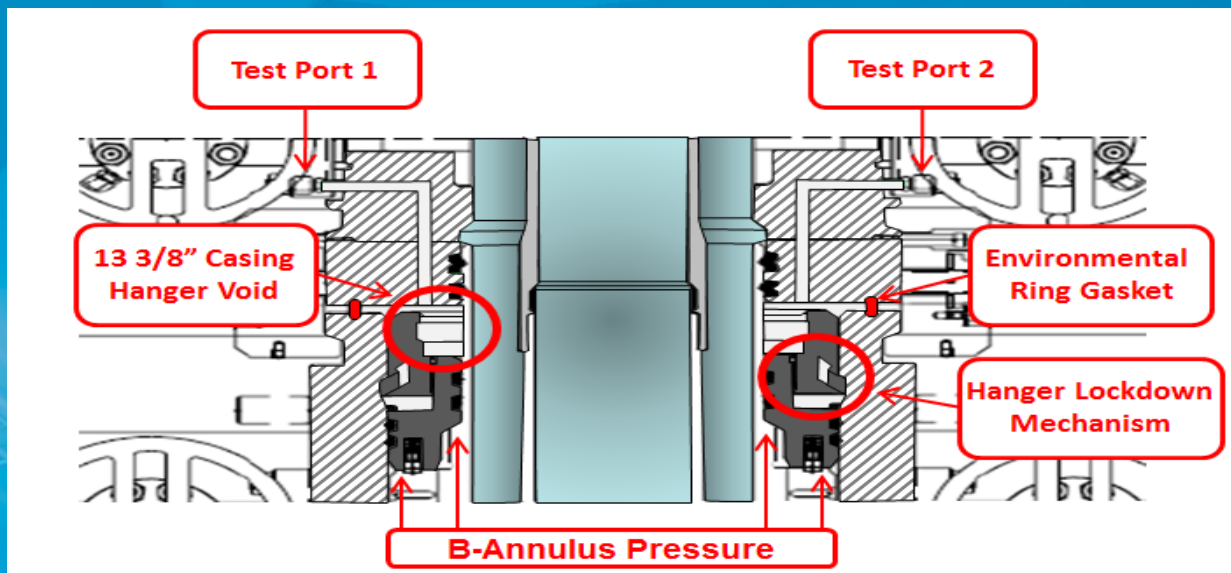


IBS & MS-Sealant Leak Sealing Solution



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

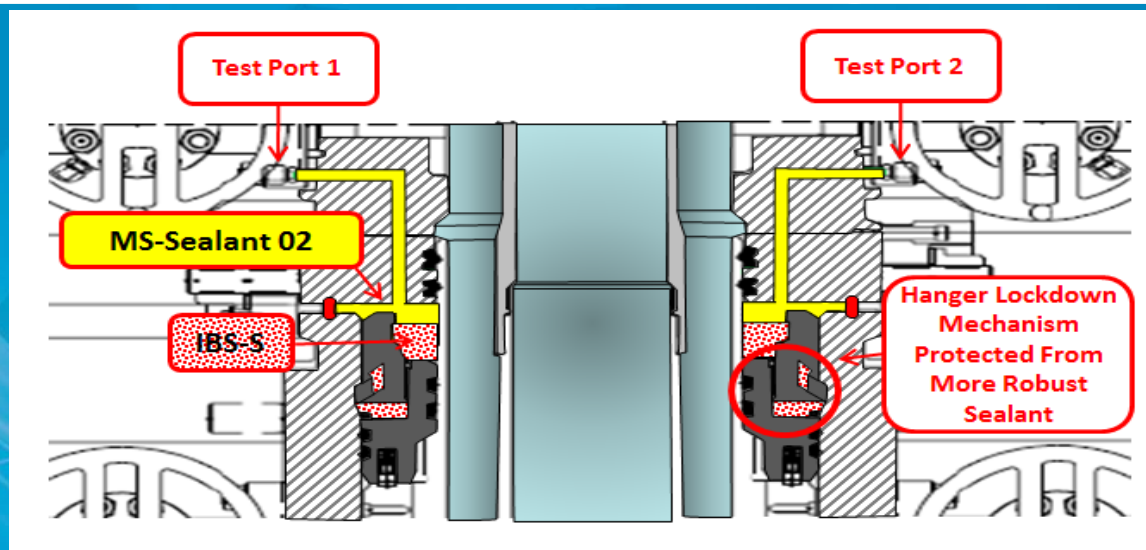
Rigless Wellhead Hybrid Isolation using IBS & MS-Sealant



Background

- ❑ KCI were asked by a Major Oil and Gas producer 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.
- ❑ A standard sealant deployment was not suitable for its application as the Casing Hanger Locking Mechanism should be protected to ensure it can be recovered at a later date. IBS-S was used to safeguard the moving parts as IBS-S can be broken back to fluid for a trouble free Hanger recovery operation.
- ❑ The Well was shut-in due to this Well Integrity issue.

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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. IBS-S sinks in oil and fills all available gaps in the Casing Hanger Locking Mechanism. Allowed the IBS-S to 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 cured, a leak off test was performed at the Injection Port with full Annulus Pressure from below – This resulted in a Zero Pressure Build Up.
- ❑ The Isolation was successful and the Well was brought online - The Customer was very satisfied.