

KCI e-news bulletin: *May 2016*



Kinetics Controls
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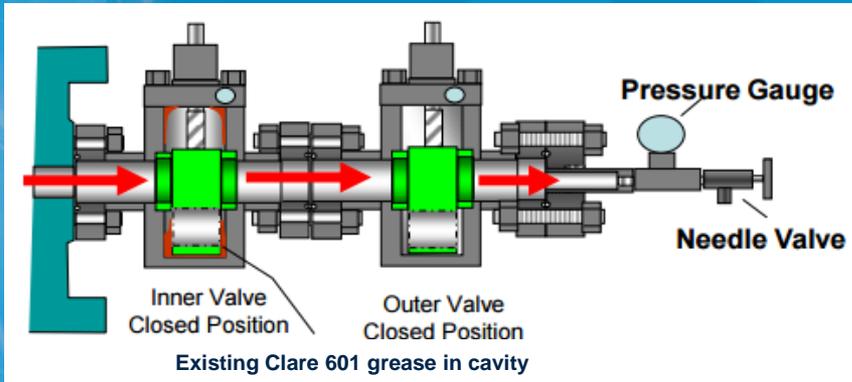
MAC-PAC Leak Sealing Solution



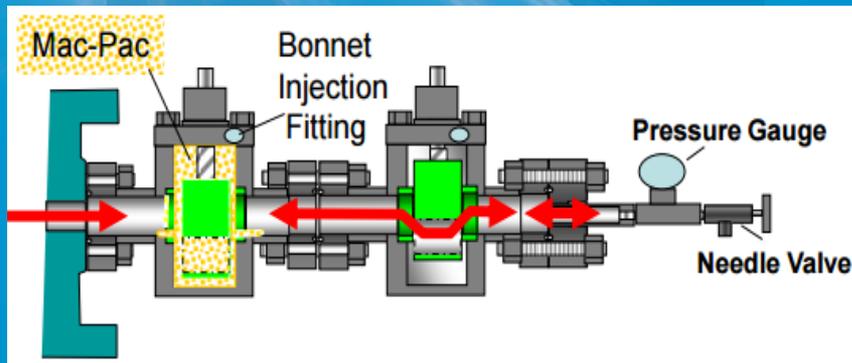
*“Successful Offshore Annulus Gate Valve
Isolation With KCI’s Mac-Pac”*

Gate Valve Isolation with Mac-Pac

Wellhead drawing - As found condition



Both annulus valves were passing so the outer flange could not be safely removed.



Inject Mac-Pac into inner annulus valve to create an isolation to break containment.

Background

- ❑ KCI were asked by a major Oil and Gas producer in the UK to provide an isolation on a leaking inner 15k 2 1/16" annulus gate valve in support of installing a VR Plug in the wellhead to replace the outer annulus valve. Mac-Pac is ideal for this application as it acts both as a sealant and lubricant.

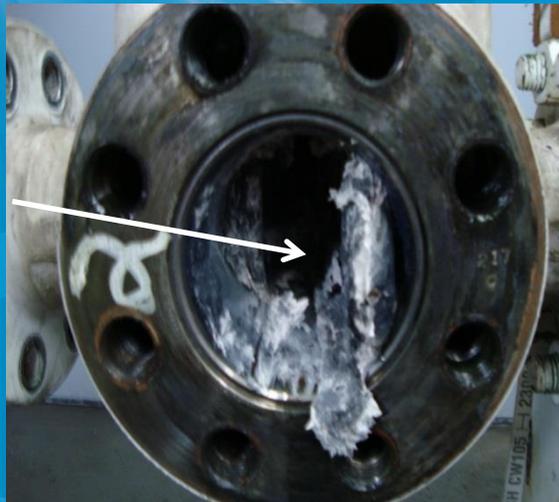
Planned Operation

- ❑ Displace the existing Clare 601 grease from the valve cavity and replace it with KCI's Mac-Pac through a Model 'D' fitting on the gate valve to provide an effective valve isolation.
- ❑ Obtain a zero leak rate build up through the closed annulus valve and remove the outer pressure retaining flange.
- ❑ Install a Telescopic VR Plug installation lubricator and successfully set and test a VR plug through the Mac-Pac filled valve.
- ❑ Replace the inner annulus valve and return well to service.

Gate Valve Isolation with Mac-Pac



VR plug coated in Mac-Pac after removal during onshore trial



Valve Body after Bonnet removal showing the Mac-Pac Sealant packed cavity.

Actual operation

□ The work scope of the operation was carried out following these steps:

1. Connect KCI deployment tooling to the Model 'D' fitting on the annulus valve.
2. Inject Mac-Pac sealant through the Model 'D' fitting displacing Clare 601 grease.
3. Function the valve to the closed position with the cavity full of Mac-Pac. Confirm zero pressure build up.
4. Remove outer annulus valve and fit Telescopic VR Plug installation lubricator. Open inner annulus valve and install VR plug and test.
5. Replace inner annulus valve and test. Remove VR plug. Fit outer annulus valve.
6. Carry out functional checks – OK. Return well to production.