



Kinetics Controls  
& Innovation Ltd

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# MAC-SEAL Leak Sealing Solution

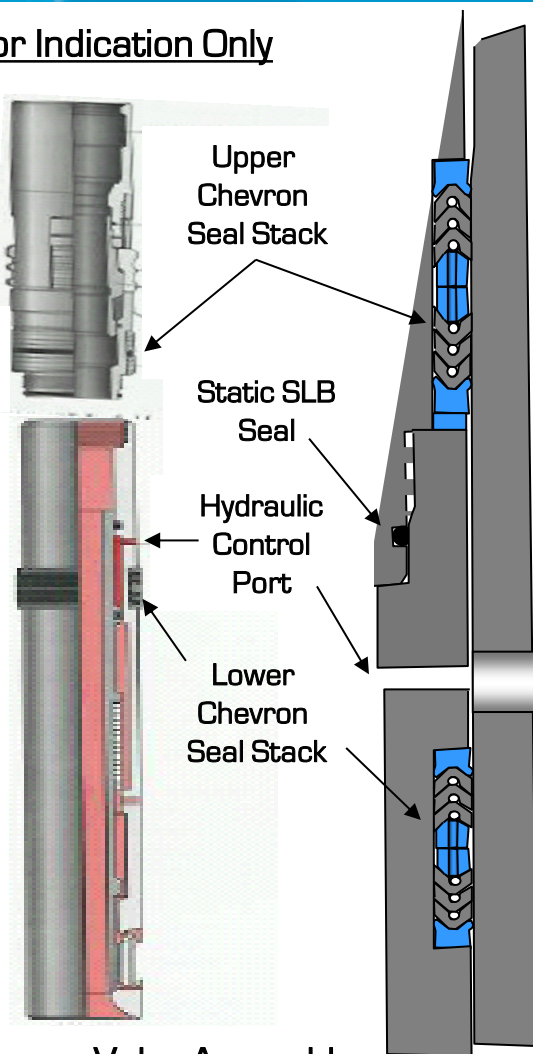


**UPDATED**

“Successful Isolation of Damaged Downhole Safety  
Valve Packing Bore using Mac-Seal”



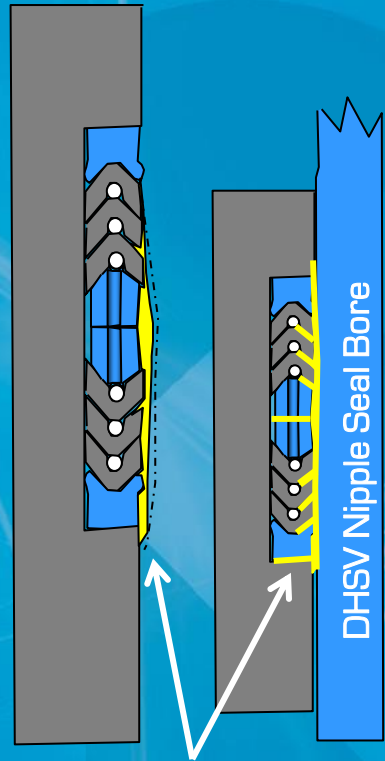
For Indication Only



Flapper Valve Assembly

## Background

- ❑ KCI were requested by a Major Oil and Gas Operator to create an isolation on a Wireline Retrievable Down Hole Safety Valve (WRDHSV) Packing Stack to fill any damaged, corroded or wire tracked areas in the seal bores to create an isolation.
- ❑ Various steps had been taken to address this issue including "B-Seals" & Swellable Seals without success. All indications lead to damage within the Upper Seal Bore of the DHSV assembly.
- ❑ KCI provided the Engineering and Product to carry out the operation.
- ❑ KCI proposed to coat the outer surfaces of the Packing Stacks with 500mls of Mac-Seal . This would coat the internal seal bores of the DHSV Nipple for isolation and containment.



Sealant coating the Seal Stacks filling all Damaged Areas in the Seal Bores to create an Isolation.

The WRDHSV is easily removed using Standard Wireline Techniques.

## Deployment Detail

- ❑ 500mls of Mac-Seal applied to the Upper and Lower Seal Stacks. (See picture below)
- ❑ The Lower Packing Stack will squeeze through the Upper Seal bore depositing some sealant into the damaged areas. The Upper & Lower Packing Stacks will then enter their corresponding Seal Bores at the same time filling in all damaged areas.
- ❑ The Sealant below the Upper Packing Stack will start to contact and smear onto the Seal Bore filling all corroded or damaged areas.
- ❑ Once the Mac-Seal had fully cured the customer obtained a good pressure test on the Control Line and Inflow test on the Safety Valve retaining full functionality.

Mac-Seal Applied to WRDHSV at Surface



## \*Objective Achieved\*

The Isolation was successful and the Well was brought back online safely. Our customer was extremely satisfied with our Safe, Effective & Efficient Isolation.

This Value Adding, Rigless Isolation Operation saved the Well owner from a potentially time consuming and costly Well workover or long term Well suspension.