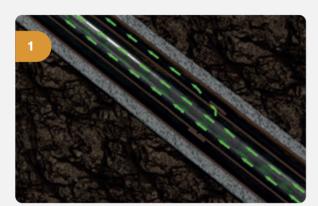
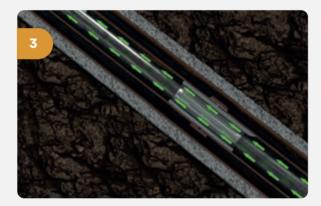
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# **Repairing Damaged Tubing or Casing**





#### **APPLICATION**

The Wel-lok™ CLS (Casing Leak Seal) was developed to address the shortcomings of traditional methods in sealing leaks in tubings and casings. This tool provides a VO rated seal with higher pressure ratings than conventional casing patches with a larger through bore than traditional packoffs. If full bore access is required, it can be milled out leaving a seal only across the leaking area of the well.

### WEL-LOK™ -AN OVERVIEW OF THE TECHNOLOGY

The Wel-lok™ technology consists of utilising a modified thermite chemical reaction heater to melt bismuth-based alloys downhole. The melted alloys have a viscosity similar to water, and a specific gravity 10 times that of water, allowing them to flow into the smallest areas of a wellbore without the need of any surface pumping equipment. As the alloys cool and solidify, they expand to provide a seamless gas tight seal that is non-corrosive and not affected by H₂S or CO₂.

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## **Features**



### WEL-LOK™ CLS FEATURES

- Creates a metal to metal seal without using elastomers
- Ready for pressure testing in one hour
- V0 ISO 14310 tested
- No mechanical parts
- Electronically activated
- One trip operation
- Differential pressure ratings up to 10,000 psi

# KEY BENEFITS OF USING WEL-LOK™ CLS FOR INTERVENTION

- Can be used even in damaged and corroded tubings and casings
- Larger through bore than standard packoffs
- Higher pressure ratings than standard expandable patches
- Non-corrosive and not affected by H<sub>2</sub>S or CO<sub>2</sub>
- Millable to achieve a full bore
- Available in a range of sizes to suit API & non API tubing and casings
- Temperature ranges up to 160°C

As world leaders in the use of bismuth based alloys and thermite in the downhole environment BiSN has a portfolio of products aimed at tackling some of the most difficult issues faced by the oil and gas industry. We pride ourselves in building a responsive long term working relationship with our customers and working closely with them to provide innovative solutions. This innovative development in well sealing technology is breaking the mould of traditional sealing solutions and attracting attention from the major players in the oil and gas field. See our website for further information about us and our investors.