

# Leak-Proof Spacer Fluid

( 2018 World Petroleum Association Best Wellbore Integrity Technology )

## Technical Principle :

For many years, leak-proof cementing has mainly stayed on fiber cement plugging, but the key problems have not been solved. The new technology of cementing and anti-leakage isolation fluid mainly forms an impermeable "membrane", which can improve the equivalent pressure-bearing density of 0.12-0.24g/cm<sup>3</sup> of formations prone to leakage.

## Customer Pain Points :

Loss circulation has always been a challenge for successful cementing, such as: Permian cementing in the Tarim platform basin, fractures in the piedmont, salt layers, and target formations, and the proportion of wells with leakage through induced and fracturing Large; in 2021, PetroChina will launch five red lines for the determination of unqualified cementing quality: the first of which: the cement return height does not reach the design value, and the length of the section below the design is more than 50 meters. At present, all PetroChina oilfield companies and cementing companies are actively looking for cementing solutions for leaky wells.

## Technical Features :

- Stability: 400°F (204°C), can be mixed with fresh water/salt water/seawater;
- Weight: 19.5 ppg (2.34 g/cm<sup>3</sup>), can be mixed continuously/batch;
- Strong shear force/laminar frictional resistance improves displacement efficiency;
- Do not pollute the formation and prevent the filtrate from contaminating the reservoir - the reverse discharge rate is over 95%.

### **Application Scenarios:**

- It is an imported isolation fluid system that is optimized for the treatment of leakage horizons;
- Can be used as an independent system to solve leakage problems;
- Complete the formation repair before cementing to ensure the quality of cementing.

### **Application Scheme and Technical Protection:**

- Combined with special plugging materials and cement slurry system of target wells, developed a leak-proof isolation fluid system and supporting cementing technology suitable for wells, and promoted them in oil fields;
- Technical protection: The leak-proof isolation fluid system is: Anton leak-proof isolation fluid base fluid + cementing company (auxiliary admixture) + weighting agent, the base fluid we provide is the core of our technology.