

Well Flow Management

Fluids Sampling and Analysis

Well Integrity

Leak testing of Annulus and Down Hole Safety Valves

Expro provides tools for systematic testing of leaks with acceptance criteria according to regulations and allows for improved leak testing procedures.

Testing steps

- Measure total gas (mass and volume) stored in gas cap and dissolved in liquid
- Measure gas composition before, during and after bleed down
- Inject pressurized N₂ or Ar:
 - Reduce downhole leak rate by reduced dP
 - Minimize fraction of HC gas at surface
 - Identify internal leak between annuli
- Identify and correct leak rates due to H₂ content
- Estimate leak rate from P-build-up curves
- Use tracer dilution concept for verification of estimated leak rates with N₂ or Ar as tracers

