

Wireless Well Solutions

CaTS Well Integrity Monitoring

Expro's wireless downhole monitoring system uses the world-leading CaTS EM technology to transmit high resolution pressure and temperature data from isolated and suspended zones.

Installing a CaTS wireless P&T gauge below a barrier or within an isolated zone enables immediate verification and long term qualification of wellbore barriers and plugs to provide enhanced well integrity assurance. The high accuracy data can be used to detect the smallest pressure changes over time to prove sealing reliability. The CaTS gauges can be retrofit into existing wells on wireline or run clamped onto new casing and completions.

Features

- Market-leading technology with 20 year proven track record in wireless EM communications
- Signal not attenuated by cement plugs, mechanical barriers or high doglegs
- Wireless data allows isolated zones to be monitored without barrier penetrations
- High precision quartz transducer for reliable P&T measurements
- E-line pickup system for real-time barrier verification
- Duplex functionality to optimize system performance and deliver critical data at the right time
- Single RIH operation to set plug and verify its sealing integrity during surface pressure test
- Compatible with all third party wireline, plugs, packers and hardware

Benefits

- Improved operational efficiency with single RIH to set the plug then verifies its sealing integrity when pressure testing from surface
- Delivers real-time data to surface using E-line for instant decision making
- Offers independent verification to aid industry qualification of alternative barriers
- Long transmission distances so multiple barriers within the same well can be monitored
- Proven wireless technology that can be used in both cased hole and rock-to-rock abandonments
- Early indication of annular pressure build-up from thermal increases and high pressure zones
- Can be used for short term verification and long term suspension monitoring
- Serves as an early warning system for abnormal pressure conditions in the wellbore ahead of any re-entry (for P&A or remedial measures)

- Indication of zonal cross-flow and zonal isolation integrity
- Validates barrier performance under static and dynamic pressure/temperature cycles during flowing and shut in periods
- Complies with local abandonment and suspension guidelines/regulations

Applications

- Real-time wellbore barrier verification
- Long term monitoring of suspended wells prior to re-entry for final abandonment
- Qualification of new and alternative barriers and plugs
- Behind casing pressure monitoring
- Annulus pressure build-up monitoring in A, B & C annuli
- Carbon capture and storage monitoring

