Well Test and Frac Operations:
Flow Assurance Monitoring Package

Corrosion Monitoring
Sand / Solids Monitoring
Real-time H2S / CO2 Monitoring
Non-Intrusive Liquid Flow Monitoring
Real-time UT Wall-thickness Monitoring

SMART Software
Interactive Data Visualisation

Increased Safety
- Reduces risk / personnel exposure to potentially harmful H2S samples.
- Reduces personnel exposure to high-risk area - wall thickness monitoring

Reduced Cost
- Realtime monitoring of multiple parameters allows well operations to continue, whilst monitoring the risk in real time.
- Reduced manual operations and onsite personnel requirement

Real Time Decision Making
- Reduced downtime through Instantaneous data analysis that allows faster more reliable decisions

Solids Quantification
- Integration of flowmeter allows real time solids quantification
- Dual monitoring method that can deliver volumetric flow and flow velocity

Understand Your Well
- Measure frac fluid flowback
- Increased Real Time data allows instant, informed decision making
Sand, Erosion & Corrosion Monitoring
Acoustic & intrusive sensor packages provide instantaneous detection of solids production and when combined with flow monitoring provides solids quantification.

- Increased safety
  - Reducing risk and potential damage to plant
- Reduced costs
  - Data redundancy via two independent measurements
- Continuous Data
  - Instantaneous, data allows faster more reliable decisions

Realtime UT Wall Thickness Monitoring
An array of installed real-time UT wall thickness sensors, measures absolute wall thickness, this monitors corrosion / erosion high-risk areas continuously.

- Increased safety
  - No requirement for personnel to inspect high-risk areas
- Reduced costs
  - No requirement for offshore manual operations
- Continuous Data
  - Real-time identification of wall loss at high-risk areas

Realtime H2S & CO2 Monitoring
The Realtime H2S monitoring systems is a fully automated system capable of delivering real time H2S and Co2 measurements up to 40% volume.

- Increased Safety
  - Reduces risk / personnel exposure to harmful samples
- Fully Automated
  - Automated, minimum maintenance, infield calibration
- Integration / Alarming
  - Integration of data and alarms to acquisition system

Portable Non-Intrusive Flow Monitoring
Portable Non-Intrusive liquid flowmeter, utilises a dual monitoring method that can deliver volumetric flow and flow velocity, suitable for high solids content

- Non-Intrusive
  - Allows installation and repositioning whilst flowing
- Fully Automated
  - Automated, minimum maintenance, in-field calibration
- Integration / Alarming
  - Realtime integration into data acquisition system

SMS SMART Data Visualisation
3D Data Visualisation and reporting delivers insight allowing decisions to be made based on real time contextual knowledge and data analysis

- 3D Visualisation
  - Intuitive data mapping and visualisation
- Integrated Alarming
  - Data and alarms fully integrated into acquisition system
- Remotely accessed
  - Data visibility through secure network access