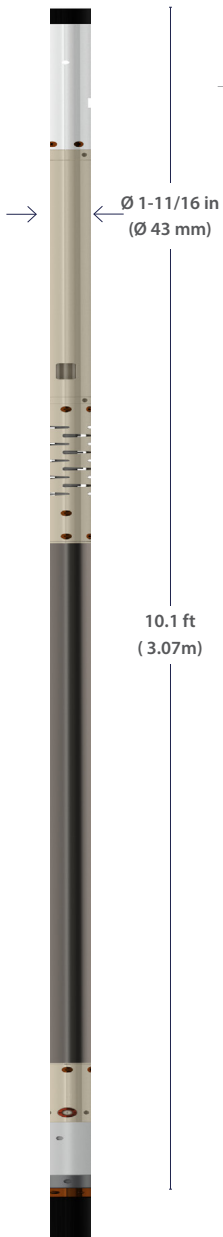




ARRAY NOISE TOOL (ANT-B)

ANT-B is a next generation wireline leak detection and fluid movement evaluation instrument. The continuous recording tool utilizes a segmented array of wide-band acoustic sensors to produce an innovative data set of differential measurements. This allows excellent rejection of unwanted "road noise" produced by tool movement in the wellbore. The sensor array allows inventive propagation-direction processing to further extract weak fluid movement sounds from behind multiple pipes. Cutting edge machine learning algorithms facilitate more precise location of downhole sound sources and paths.

By paring differential sensors with array processing, the ANT-B tool can acquire accurate measurements while ascending or descending in the wellbore, improving acquisition efficiency in any sound source detection logging application.

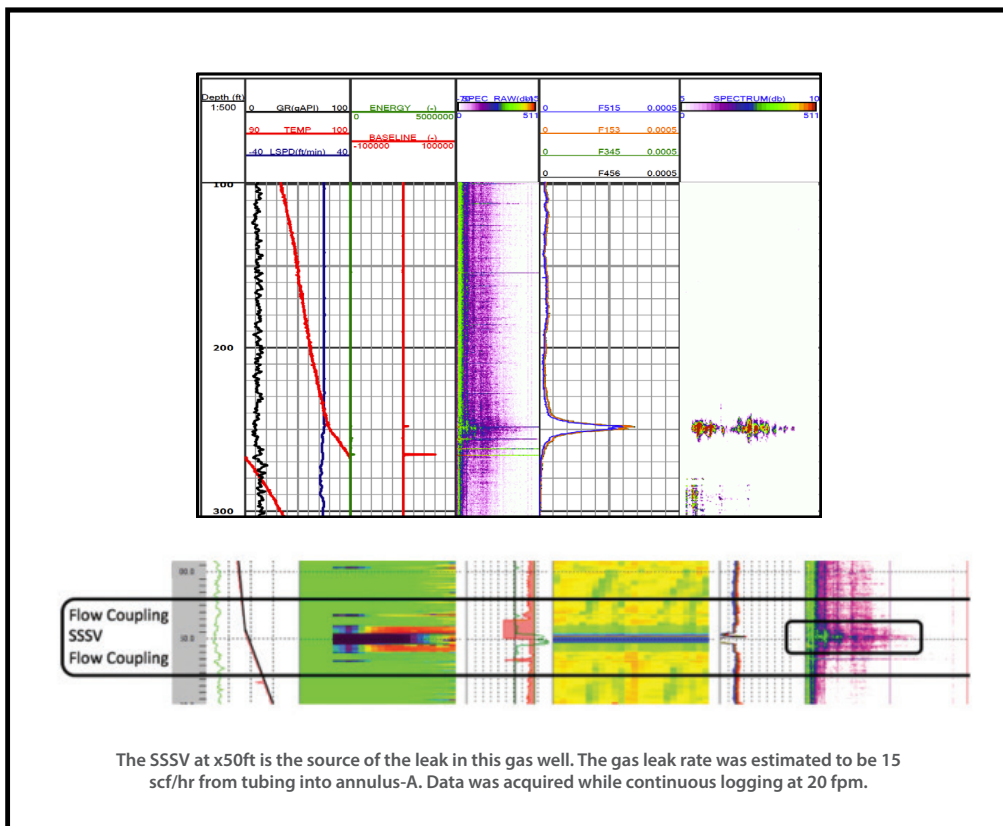


FEATURES

- 60 Hydrophones in 5-level, 4 segment array with 800Hz-60kHz bandwidth
- Dynamic and stationary acquisition modes
- Differential measurements
- Spectral Analysis shown in real-time
- Excellent Road Noise Rejection (> 30dB)
- Post-processing accuracy and efficiency enhanced by machine learning algorithms

APPLICATIONS

- Leak source and path detection in tubulars and completion hardware (tubing/casing/packer leaks)
- Diagnosis of Sustained Casing Pressure
- Location of open perforations
- Identification of flow zones behind pipe
- Recognition of channeling behind pipe



SPECIFICATIONS

		ANT - B
GENERAL SPECS		PN100511758
Maximum Operating Pressure		20,000PSI (140 MPa)
Maximum Operating Temperature		350°F (175°C)
Diameter		1-11/16 in (43 mm)
Length		10.1' (3.07 m) / Transport length <6ft (1.82 m)
Tool Weight		37 LBS (16.0 KG)
Recommended logging Speed & Range		15 FPM / 47,700 ft.
Logging Sample Rate		4 SPF
Channels/Frequency Range		14CH 800-60 kHz
Sensor Configuration		5 level array, differential spectrum
Power		18V DC, 7 Watts
Data Recording		Hybrid - Internal memory and Subset SRO
Internal Measurements		Temperature, Voltage and Accelerometer
Feedthrough Wiring		Through Wired for Inline Operation

ADVANCED PROPAGATION POST-PROCESSING

ELIMINATING "ROAD NOISE" BY DIFFERENTIAL MEASUREMENTS

