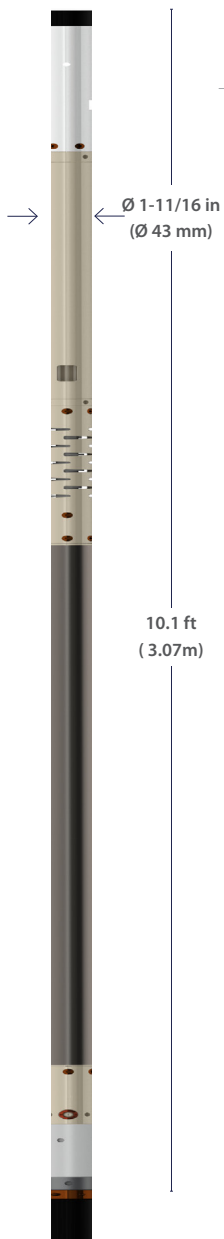




# ARRAY NOISE TOOL (ANT-B)

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.

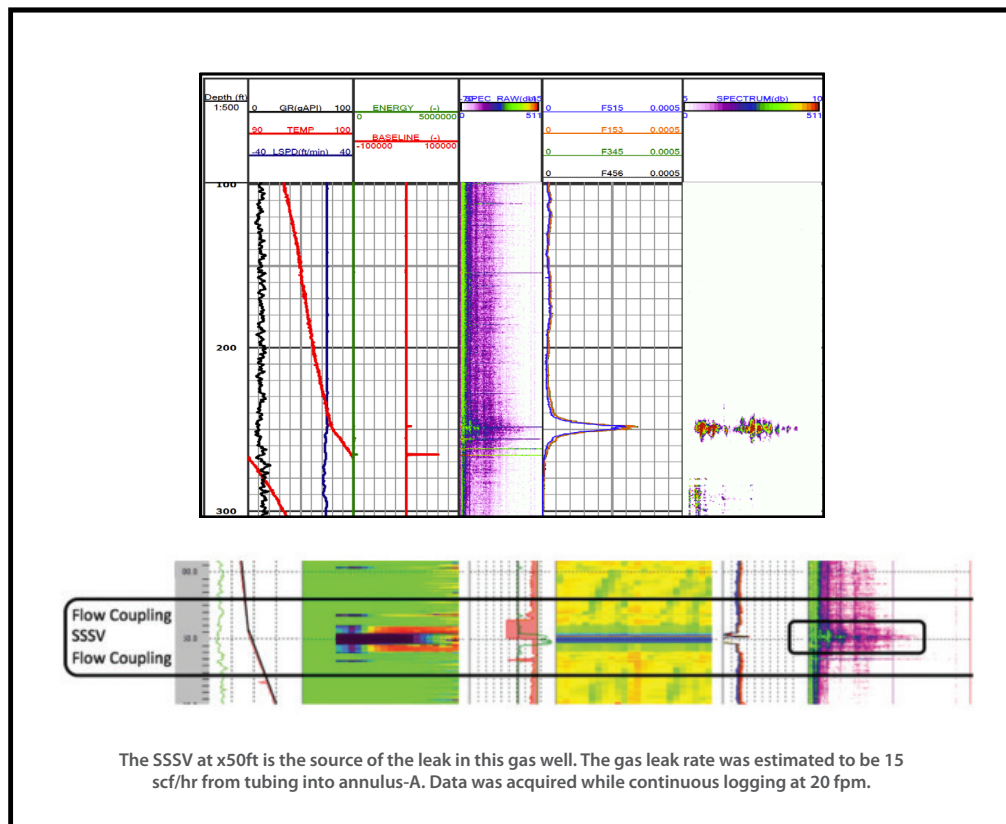


## FEATURES

- 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





# ARRAY NOISE TOOL (ANT-B)

## 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

