



ACOUSTIC LEAK FLOW ANALYSER (ALFA)

Nine's Acoustic Leak Flow Analyser (ALFA) is a memory tool used to carry out various well diagnostic studies including Well Integrity Evaluation, Production Performance and Reservoir Monitoring. This device measures Acoustic Spectrum within the range of 8 Hz to 60,000 Hz with very high frequency resolution. The tool consists of Spectral Noise, Pressure, High Resolution Temperature and Casing Collar Locator sensors.

The tool uses very sensitive acoustic sensors to measure sound produced downhole by either gas or liquid flow. Measurements are taken over a wide frequency range enabling effective identification of leak detection as well as detection of various kinds of gas, water, or oil flow, including flow behind the pipe.

Application & Features

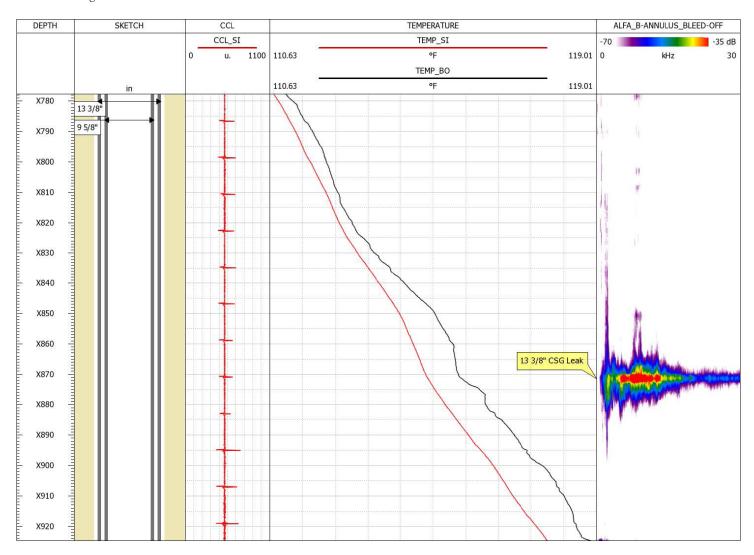
- Leak Detection (tubing/casing/packer leaks)
- Diagnosis of Sustained Casing Pressure
- Reservoir Characterization and Formation Evaluation
- Borehole and Reservoir Performance
- Location of open perforations
- · Identification of flow zones behind pipe
- · Identification of channeling behind pipe
- Ability to detect flows thorugh multiple tubulars
- Ability to distinguish flow behing pipe from flow inside pipe
- Combinability with other logging tools to provide a complete well evaluation in a single run
- Slim tool design allowing safe and easy deployment through the smallest completion tubing and restrictions

GENERAL SPECS	
	ALFA – Acoustic Leak Flow Analyser
Maximum Operating Pressure	15,000PSI (103 MPa)
Maximum Operating Temperature	350°F (177°C)
Diameter	1.26 in (32mm)
Length	1.64 ft (0.5m)
Weight	3.10 lbs (1.4 kg)
Housing Material	Titanium
Acoustic Sensor	
Dynamic Range	90 dB
Operating Frequency Range	8 Hz to 60,000 Hz
Operation Mode	Stationary
Number of Spectral Channels	1024 (512 + 512)
Memory	
Capacity	2 GB
Sampling	.5 to 255 sec



ALFA LOG EXAMPLE

Behind Casing Communication



For more information, and to find a representative near you, visit nineenergyservice.com