Noise Spectrum Tool (NST33)

Titan Division | Instruments

Overview

The Noise Spectrum Tool is designed to measure downhole noise in the frequency range 100Hz to 12.7kHz. The downhole noise may be generated in different frequencies by the fluid flowing both inside and outside the casing. By analyzing the frequency spectra of noise, the nature of fluids may be determined and leaks located.

The Noise Spectrum Tool is applicable to oil/gas/water wells. When combined with the temperature tool and flowmeter, the NST string features the significantly improved accuracy and success rate in locating leak and cement channeling.

Additionally, the NST33 performs real-time monitoring of downhole noise and the audio signal can be saved and played back.

Application

- Location of the production intervals and assessment of the capacity.
- Fluid characterization and flow rate assessment.
- Detection of the cement channeling behind casing, casing leaks, backflow, sand production and measurement of packer performance.
- Determination of the formation structure behind casing.
- Combination with PLT in logging.

Features

- Digital transmission
- Large detection radius
- Detect noise through multiple barriers
- Real-time transmission and saving of audio signal

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WELL-SUN

Specifications

Max. Working Temperature	**175℃ (347°F) (four hours)**
Max. Working Pressure	**140MPa (20300Psi)**
Storage Temperature	**-10℃～+50℃ (no more than 24hours within -26℃~-10℃) Temperature recommended: +20℃～+25℃**
OD	**43mm (1 11/16")**
Make-up Length	**750.5mm (29.55")**
Tool Length	**845.5mm (33.29")**
Measuring Point	**285.0mm (11.22")**
Transmission Mode	**Mono-conductor cable**
Max. Operating Current	**85mA**
Operating Voltage	**18V±5%**
Max. Logging Speed	**300m/h(984ft/h) (excessive speed may influence measuring resolution and accuracy)**
Transmission Protocol	**WST bus**
Frequency Resolution	**100HZ**
Transducer	**Piezoceramics**
Operating Frequency	**100Hz-12.7KHz**
Curve Output	**128 frequency curves (set freely within 100Hz-12.7KHz)**
Audio Output Format	**MP3**
Upper And Lower Threads	**1 3/16 -12 UN-2A(B) GO (female/male)**