Radial Bond Tool, RBT004

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UltraWire™ Radial Bond Tool

The Radial Bond Tool (RBT) facilitates a detailed, qualitative analysis of the zonal isolation achieved by cementing services. Effective hydraulic isolation from water-bearing formations is crucial to maximise the productivity of hydrocarbon-bearing reservoirs. Poor cementing allows unwanted fluid transfers between zones resulting in the potential for lost or unwanted production.

Description

The RBT allows the detection of poor cement conditions before perforating enabling proactive measures to be taken. Its size, rigid isolator and powerful transmitter allow robust operations. In addition to the traditional 3 ft amplitude and 5 ft VDL, the RBT has a radially segmented, calibrated amplitude measurement. This focuses the transmitted sonic pulse circumferentially allowing the differentiation of small axial channels as opposed to poor or contaminated cement.

Features

- · Single transmitter, 3 ft (near) and 5 ft (far) receivers, 8-segmented radial receiver array for radial cement imaging
- · Variable sampling rates to maximise data acquisition
- · Interchangeable telemetry cartridge
- · Slotted sleeve design for improved rigidity, strength and acoustic isolation
- Fully combinable with other UltraWire[™] and UltraMemory[™] tools

Specification

Temperature	177°C	350° F
Pressure	138 MPa	20000 psi
Tool Diameter	79.4 mm	3 - ¹ / ₈ in
Tool Length (make-up)	2.89 m	9.48 ft
Tool Length (transport)	3.08 m	10.09 ft
Tool Weight	63.5 kg	140 lbs
Supply Voltage	18 VDC	
Power/Current	50 mA	
Receivers	Piezoelectric crystal	
Signal Output	3 ft amplitude, 5 ft VDL and a cement quality map generated by the calibrated 8-segment receiver array	
Measure Point 3-ft Amp 5-ft VDL	156.5 cm 126.0 cm	61.6 in 49.6 in
Logging Speed @ 50 Kbps @ 100 Kbps at 0 85 m (0 167) standard depth resolution	21 m/min 30 m/min	70 ft/min 100 ft/min
Borehole Environment	Fluid Media (i.e., brine, oil, fresh water, drilling mud)	
Maximum Casing/Tubing ID	34 cm (13.4 in)	



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