

Induction Array Tool (IAT)



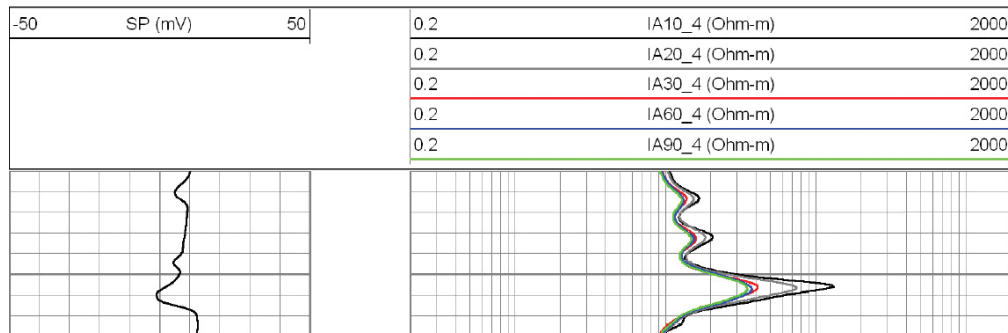
The Induction Array Tool (IAT) measures the openhole formation conductivity at five depths of investigation, and can offer legacy deep and medium curves. The Spontaneous Potential (SP) curve is also provided by the tool.

Description

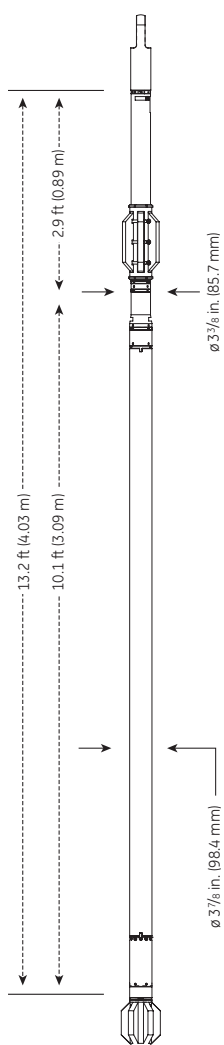
The IAT tool establishes formation resistivity by using the real and quadrature signal responses from the formation. By using both signals from the array coil combinations, the tool compensates for skin effect. This provides a more accurate tool response, improves invasion profiling and allows precise water saturation calculations. The IAT tool provides information at radial distances of 10, 20, 30, 60, and 90 in., and at vertical resolutions of 2 and 4 feet. A separate electrode included in the tool is used to measure the SP.

Features

- Standard deep and medium resistivity output
- Array output with five depths of investigation
- 2 and 4 ft vertical resolution outputs
- SP curves are incorporated into the tool
- Fully compatible with Sondex Ultrawire* tools
- Easy to transport—can be broken down into sections less than 10 ft



Induction Array Tool (IAT)



Specifications	
Maximum OD	3 7/8 in. (98.4 mm)
Makeup length	13.2 ft (4.03 m)
Weight	196 lb (89 kg)
Maximum temperature	302°F (150°C)
Maximum pressure	20 kpsi (137.9 Mpa)
Minimum hole	6 in. (152 mm)
Maximum hole	16 in. (406 mm)
Tensile strength	2,000 lb (907 kg)
Compressive strength	2,600 lb (1,180 kg)
Sensor Offsets	
Induction	8.06 ft (2.46 m)
Spontaneous potential	0.6 in. (0.017 m)
Borehole Conditions	
Borehole fluids (IAT)	Fresh, salt, oil, air
Borehole fluids (IAT)	Fresh, salt
Maximum logging speed	60 ft/min (18 m/min)
Tool position	1.5 in. standoff, and 0.5 in. standoff
Measurement	
Accuracy	+/- 2.5% or +/- 2 mmho
Vertical resolution	4 ft (1.22 m)
Vertical resolution enhanced	2 ft (0.61 m)
Radial depth of investigation (50%)	(50%) 10–90 in. (25.4–229 cm)
Measurement range	0.2–2000 ohm-m
Primary curves	10, 20, 30, 60, 90 in., and SP
Secondary curves	ILM, ILD
Hardware and Power Requirements	
Tool bus	Ultrawire*
Power	400 mA (18V DC)



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