GeoVista

Dual Guard Focused Resistivity Probe

The Dual Guard Focused Resistivity Probe (DLL3) measures both deep and shallow focussed resistivity, as well as spontaneous potential (SP) from the bridle electrode. It has superior vertical resolution and depth of penetration than the conventional ELOG probe.

Resistivity is a fundamental property of materials and resistivity logging is one of the most mature geophysical logging techniques. The DLL3 probe provides a deep and shallow resistivity measurement at a higher vertical resolution and offers deeper penetration than is possible with a standard ELOG probe. This is achieved by sending a measure current from the drive electrode to the cable armour beyond the isolating bridle. The current is focused by a bucking current which flows from the connected guard electrode pairs. The potential of these guard electrode pairs is kept equal to the drive electrode, this turns the sonde into an equipotential surface and forces the measure current to flow out perpendicular to the sonde orientation.

Resistivity logging is a staple in mineral exploration, water well drilling, formation evaluation, and many other applications. After natural gamma logging, it is probably the most widely used logging technique.

APPLICATIONS

- Stratigraphic correlation
- Formation properties
- Mineralised zone detection
- Aquifer delineation
- Water salinity
- Indication of permeable and porous zones

KEY FEATURES

- Combinable digital probes
- Electrode configuration and measurement options to suit requirements.

SPECIFICATIONS	DLL3 Sonde
Weight (kg)	8
Length (m)	2.37
Diameter (mm)	42
Resistivity Range (Ohm m)	0.2 to 30 K Extendable to 100 K
SPR Range (Ohm)	-
SP Range (mV)	2500 to +2500
Current return	Cable armour
Measure return	Bridle electrode
Max. Pressure (MPa) HP version	20 35
Max. Temp. (°C)	80
Borehole Condition	Water filled Open hole

Accessories: Resistivity bridle/bridle substitution sub, test and calibration box