

# DDL3 RESISTIVITY SONDE

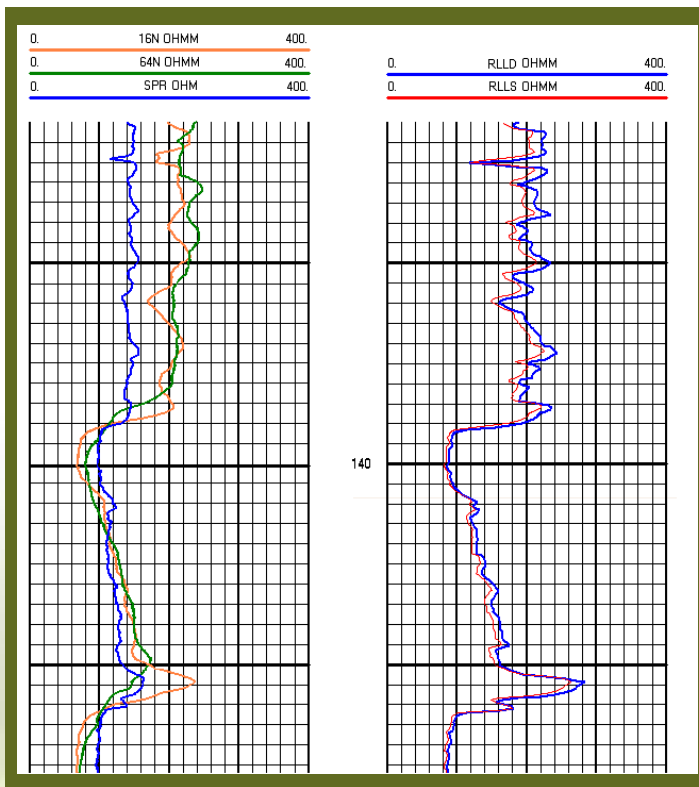
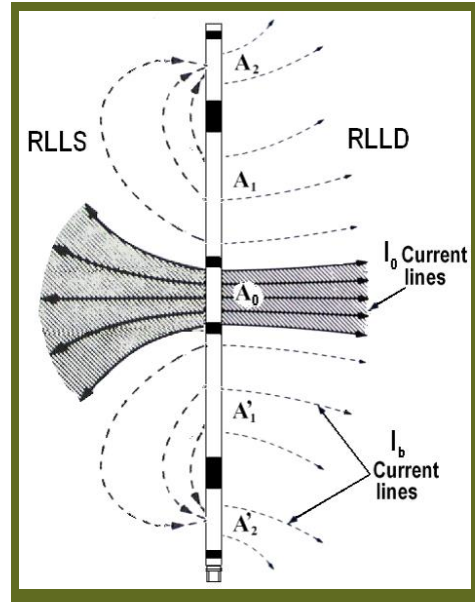
## Dual Guarded Resistivity Sonde

The DLL3 Dual Guarded Resistivity Sonde measures formation resistivity using a set of electrodes designed to allow for both a Deep and a Shallow investigation capability. The DLL3 sonde requires the use of an isolating bridle. The DLL3 is a superior alternative to the traditional Normal Resistivity sonde. It offers the advantage of deeper penetration (particularly in conductive mud) and better vertical resolution.

The Dual Guard Sonde works on a principle that is similar to the standard nominal resistivity sonde.

A measure current  $I_0$  is sent from a central electrode  $A_0$  to a remote return (the cable armour beyond the isolating bridle). This current is focussed by means of a *Bucking* current  $I_b$  which flows from the Guard Electrodes pairs which are connected together.

The potential of the Guard Electrode pairs is held equal to the potential of the measure electrode  $A_0$ . This turns the sonde into an equipotential surface forcing current  $I_0$  to flow out perpendicularly as a disc with an initial thickness equal to the measure electrode  $A_0$ .



### Sonde Dimensions:

- Sonde length:** 2.27 metres
- Sonde diameter:** 38 millimetres
- Sonde weight:** 7.5 Kg
- Sonde Output:** Ohm/m

