



TECHNICAL SHEET

BOREHOLE IMAGING	MICRORESISTIVITY	DIPM4
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Generalities

Principle

The probe consists of a microresistivity section and a detachable verticality module that can also operate as a standalone logging tool. The microresistivity data are acquired by four high-resolution, button electrodes mounted on motorised caliper arms and maintained in contact with the borehole walls. Opposite caliper arms are mechanically linked and adjacent arms lie at 90° to each other. Any planar formation feature that does not lie perpendicular to the borehole axis is detected by each electrode at a different apparent depth.

Results

The four-arm dipmeter measures microresistivity and tool orientation data.

Interest

Structural analysis (identification of faults and folding), correlation between wells, bed-boundary / bed-thickness measurement, well volume and borehole break-out for stress analysis.

Option

Magnetometric trajectometry, natural gamma measurement.

Constraints / borehole

filing up	: <input checked="" type="checkbox"/> water	: <input checked="" type="checkbox"/> mud	: <input checked="" type="checkbox"/> dry
casing	: <input type="checkbox"/> PVC	: <input type="checkbox"/> steel	: <input checked="" type="checkbox"/> open
borehole	: <input checked="" type="checkbox"/> cored	: <input checked="" type="checkbox"/> destructive	
max depth	: 2000 m		
effective diameter	: 65 mm – 200 mm		
temperature	: 0°C – 70°C		
max pressure	: 20 MPa		

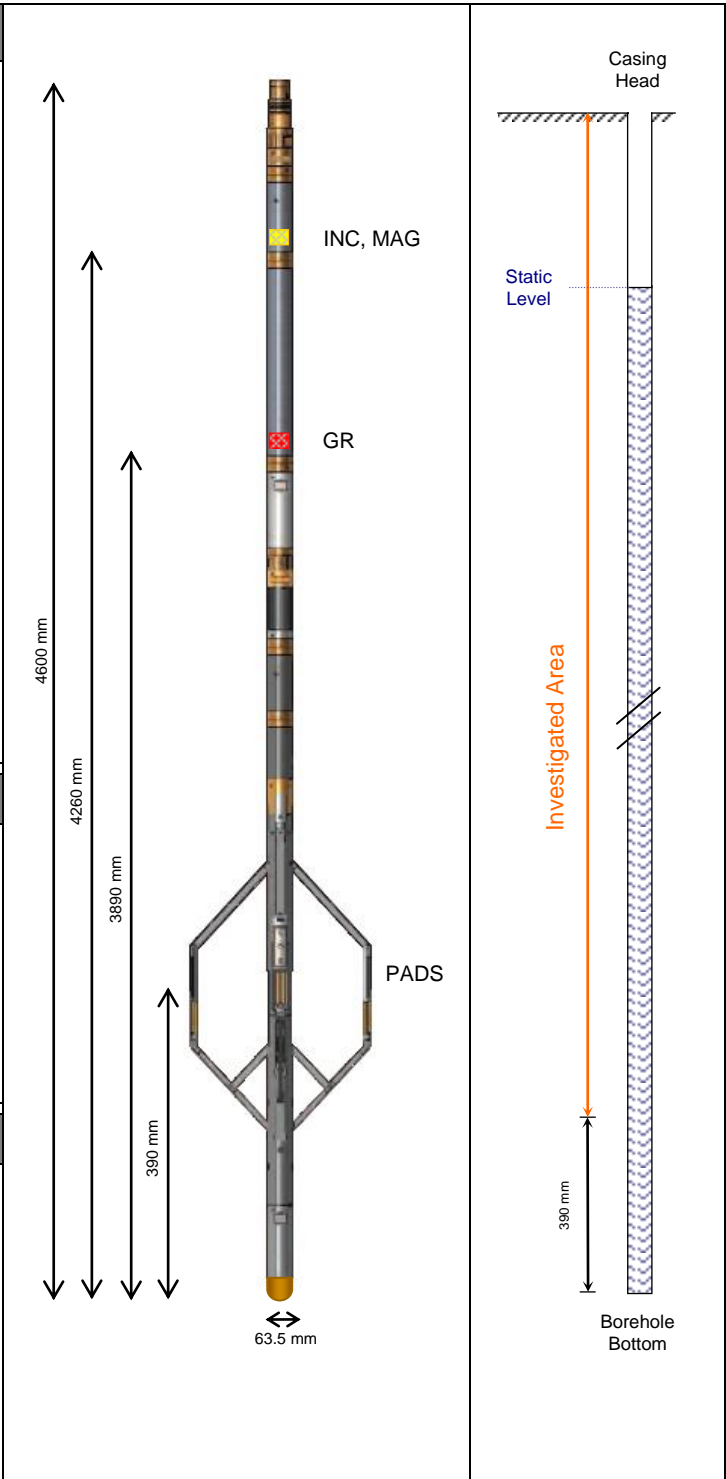
Instrument characteristics

Dimensions

- length : 4600 mm
- diameter : 63.5 mm
- weight : 60 Kg

Elements

- 1 gamma ray sensor : GR
- 1 magnetometer 3 axis (x,y,z) : MAG
- 1 accelerometer 2 axis (x,y) : INC
- 4 microresistivity pads and calipers : PADS



Recording / Measurements

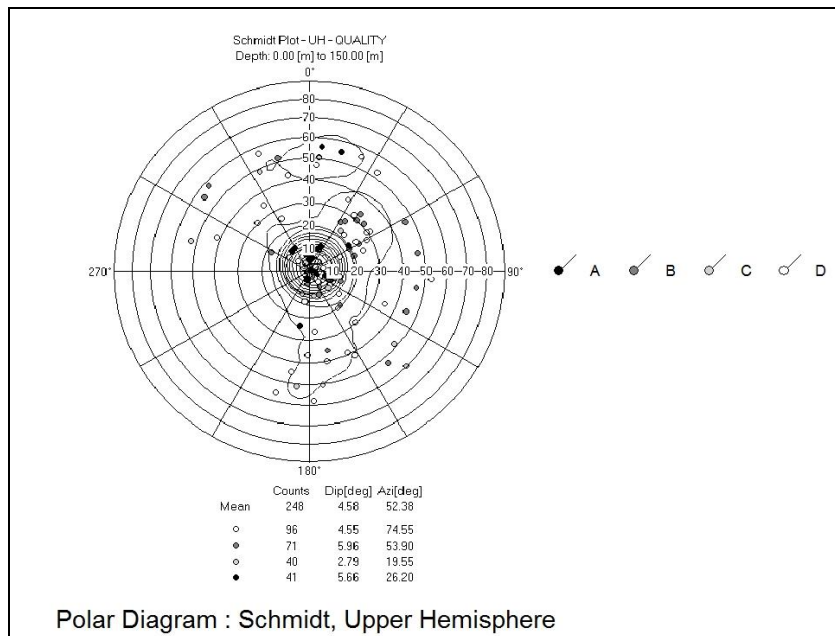
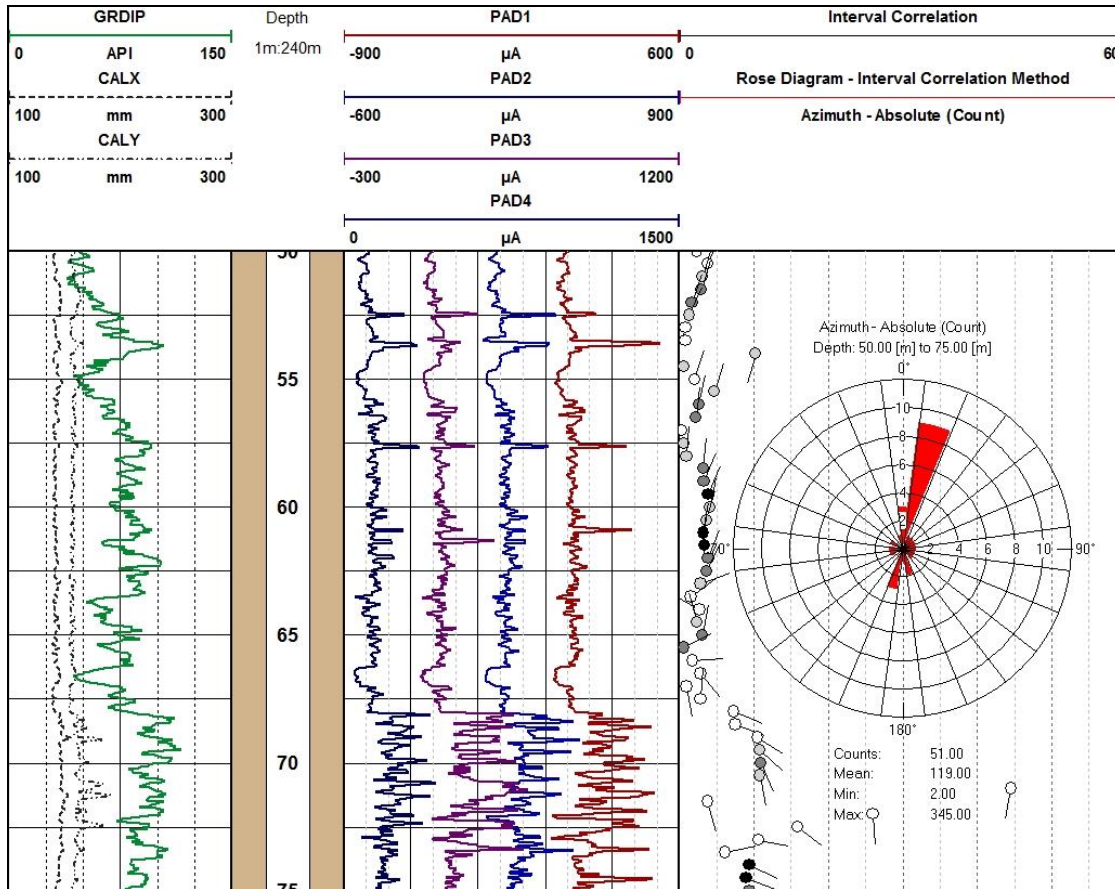
Recording

- Instrument : centered off-centered
- Measure : down up
- Rec. speed : 3 m/min

Measurements

- Resistivity range : 1 to 10 000 Ohm.m
- Caliper range : 65 to 380 mm
- Inclination : 0.1 °

Examples



The four microresistivity measurements are correlated and combined with the verticality data using RG-DIP software to calculate the dip and dip direction relative to the probe axis.