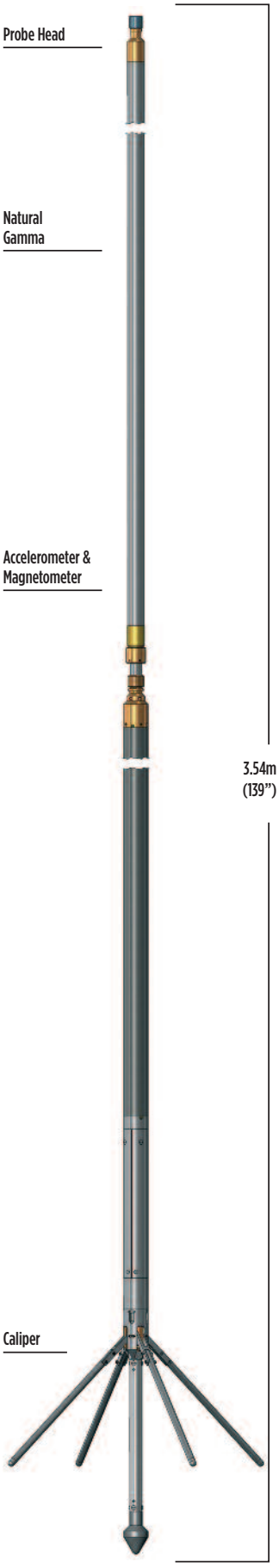
Borehole Geometry



Borehole Geometry Probe

The Borehole Geometry probe consists of a 4-arm caliper combined with a verticality measurement.

The probe can replace the 3-Arm Caliper (710mm range) with advantage where the borehole cross-section departs from circular and where directional information is required for well-completion studies and formation stress analysis. The top section can be logged as a standard verticality.

Principle of Measurement:

The XY caliper provides continuous measurements of borehole diameter from two independent pairs of linked arms. The verticality section includes a triaxial magnetometer and three accelerometers. Data from these are combined by a downhole microprocessor to provide real-time, continuous logs of probe orientation and borehole inclination and direction.

SPECIFICATION:

Features
Sensitive X-Y caliper
Continuous orientation log for all borehole inclinations

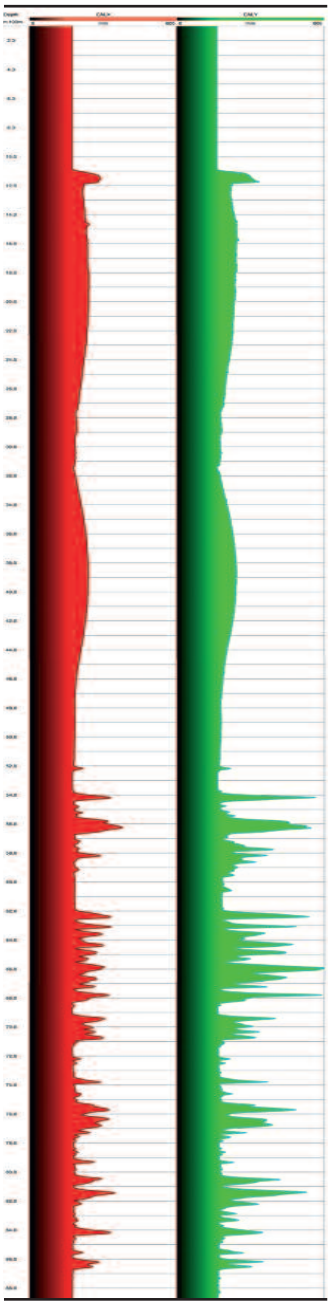
Measurements
X and Y calipers
Borehole deviation and drift
Borehole volume (derived)
True vertical depth (TVD)
Natural gamma

Applications
Water/minerals/engineering
Borehole diameter in two axes
Borehole break-out for stress analysis
Cracks, fissures and casing defects

Operating Conditions	
Borehole type:	open/cased, water/air-filled
Centralisation:	recommended, non-magnetic centralisers required
Recommended Logging Speed:	5m/min

Specifications	
Diameter:	60mm
Length:	3.54m (in two sections) or 1.81m
Weight:	19.5kg complete (5.5kg for top section)
Temperature:	0-70°C (extended ranges available)
Max. pressure:	20MPa
Caliper range:	75mm to 700mm

Part Numbers	
I002044	Borehole Geometry probe with natural gamma



Example of logging data

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