

40LGR-1000 Lithology Gamma-SP-SPR

Applications / Benefits / Advantages

The 40LGR-1000 measures Gamma, Self Potential (SP), and Single Point Resistance (SPR) so users can log resistivity profiles near the borehole and draw inferences about lithology, water quality, and formation parameters. Gamma-SP-SPR measurements have the following applications.

Stratigraphic Correlation

- bed boundary analysis
- facies changes
- geological formation properties

Basic Ground Water Exploration

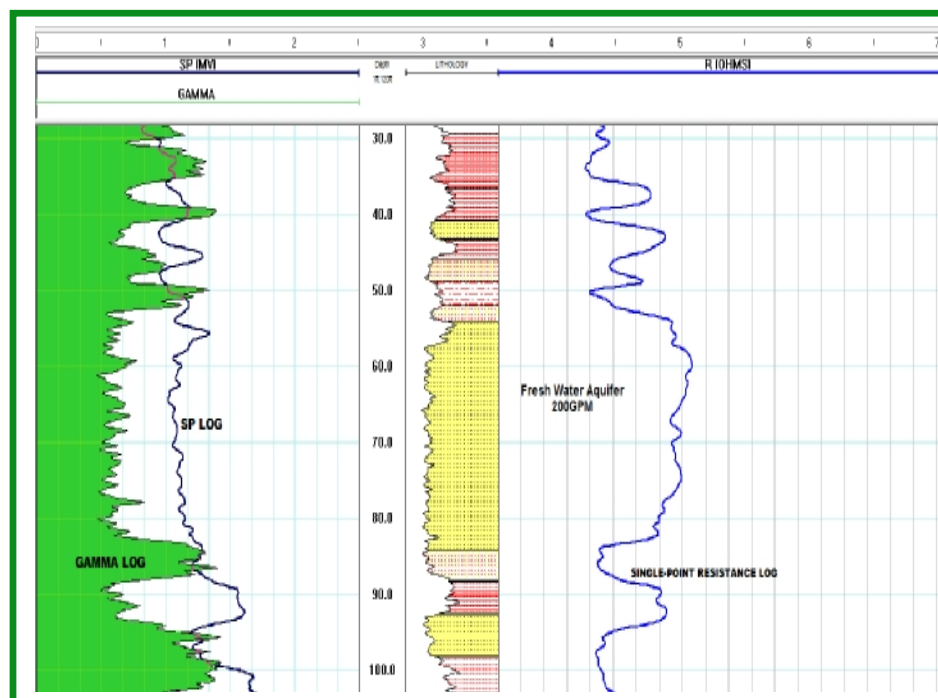
- identify hydrostratigraphic units
- aquifer thickness
- water quality estimation

Natural Resource Exploration

- hydrocarbon intervals
- ore body zones
- in-situ uranium assay

Environmental

- fluid contaminant monitoring (open holes)
- soil horizons
- grain size estimation



40LGR-1000 Gamma-SP-SPR Resistivity Probe

The 40LGR-1000 Gamma-SP-SPR probe is the most fundamental probe used in hydrogeological studies, lithology work, uranium exploration, and general borehole formation data. The totally digital probe combination measures single point resistance, self-potential, and natural gamma in two borehole passes. This probe operates with the MATRIX digital logger. Single point resistance (SPR), and self-potential (SP) measurements are designed for surveying open (uncased) fluid filled boreholes. Gamma works in any borehole environment. The 40LGR-1000 tool is used by water well drillers around the world.

Specifications

Length	44 inches (112 cm)
Diameter	1.55 inches (40 mm)
Weight	8.8 lbs. (4 Kg)
Operating Temperature	0 to 70 °C
Storage Temperature	-40 to 125 °C
Maximum Pressure	2000 psi (13.8 Pa)
Range SPR Measurement	0 to 10,000 ohms
Single Point Resistance Accuracy	1 %
Single Point Resistance Resolution	0.02 %
Self Potential Measurement Range	-1,500 to 1,500 mVDC
Self Potential Measurement Accuracy	1 %
Self Potential Measurement Resolution	0.04 %
Gamma Range	0 – 100,000 CPS/API
Gamma Accuracy	1 %
Gamma Resolution	0.02 %

