

CPR Resistivity Tool

The Compact Propagation Resistivity (CPR) Tool utilises two frequencies (400Khz and 2Mhz), and three transmitter-receiver spacings to provide a total of six resistivity curves at six depths of investigation.

Description

The CPR propagates a magnetic field into the formation at 2MHz and 400Khz, and measures phase difference-based resistivities at three transmitter-receiver spacings to provide a total of six resistivity curves at six depths of investigation.

High vertical resolution compensated data is available in real-time and memory for comprehensive and accurate formation evaluation or geosteering applications.

The use of Ultima Labs patented Bore-hole Compensation System results in a shorter tool that offers state-of-the-art borehole compensation resulting in an overall shorter tool.

CPR's unique design allows simple replacement of electronic housings, wear sleeves and antenna shield sections when required.

Features

- Three transmitter-receiver spacings, two operating frequencies (2MHz and 400KHz) - Six Resistivity Curves.
- Patented Depth Compensation System - Shorter overall tool length.
- Unique design - less expensive to own and maintain with no sacrifice to data quality.
- High vertical resolution - accurate formation evaluation capability.
- Standalone or combinable with Geolink and Pilot MWD systems.

Specification

| Measurement | Range | Accuracy |
|---------------------------------|---|--|
| 2Mhz Shallow, Deep and Medium | 0.1 to 1000 Ohm.m | +/- 2% (0.2 to 25.0 Ohm.m) +/- 0.8 mmho/m (>25.0 Ohm.m) |
| 400KHz Shallow, Deep and Medium | 0.1 to 400 Ohm.m | +/- 2% (0.1 to 10.0 Ohm.m) +/- 2.0 mmho/m (>10.0 Ohm.m) |
| General | | |
| Memory Capacity | 16Mbyte (~200 hours data storage nominal) | |
| Battery Life | ~200 hours (Varies according to formation conductivity) | |
| Collar Sizes (O.D.) | Nominal 4 1/2 in (127mm) | 5.37in (136mm) at wear bands |
| | Nominal 6 1/2 in (171mm) | 7.37in (187mm) at wear bands |
| | Nominal 8 in (203mm) | 8.5in (216mm) at wear bands |
| Max Flow Rates | 315 USGPM (19.8 l/s) | Rotating 17°/100ft, Sliding 35°/100ft |
| Max Dogleg Severity | 660 USGPM (41.6 l/s) | Rotating 10°/100ft, Sliding 21°/100ft |
| | 1100 USGPM (69.4 l/s) | Rotating 5°/100ft, Sliding 12°/100ft |
| Environmental | | |
| Temperature | 0 to 150°C | 0 to 302°F |
| Pressure | 20,000 psi | 137.9Mpa |