Taha Kimia Tajhiz Co.

Core Lab

Spectral Core Gamma System
Datasheet

Routine Core Analysis Laboratory (RCAL)/

Core Gamma Logging

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Spectral Core Gamma System

Spectral Core Gamma System is capable of measuring the natural radioactivity from cores. Using an advanced detector and data acquisition routine, Core Laboratories' Spectral Core Gamma Unit offers: total gamma ray recorded in API units; elemental contributions recorded in terms of Potassium (%), Uranium (ppm), and Thorium (ppm) and a calibrated bulk density value. Core logging speed is variable - research experiments with this unit have determined that the optimum data acquisition logging rate is up to 2.75 feet per minute for four inch diameter cores and 0.55 feet per minute for two inch diameter cores. A 6.5 inch diameter virgin lead shield around the detector and tunnel minimizes background gamma radiation allowing core up to 5.5 inch in diameter to be analyzed with minimal natural radiation interference. The use of the latest Digital Signal Processing (DSP) technology allows improved signal to noise ratio, enhanced resolution and superior data accuracy in the combined DSP/Amplifier Board. Use of the board allows direct PC control of all signal processing, power supply and amplifier functions for the detector.

Standard instrument is supplied with computer controlled conveyor system, detector module, low level Cesium source for bulk density determination, control and data acquisition module, computer hardware and software including HP DeskJet printer. The Control software operates all verifier and measurement modes of the system. The report software provides core gamma logs with both vertical and horizontal scaling options, for compatibility with a variety of downhole logs. Data are logged to hard disk. The conveyor, with all mechanical components, is integrated into a compact, rugged, utilitarian system.

Scope of Supply:

- Detector system (sodium iodide).
- PC controlled core conveyor and electronics system with integrated amplifier, digital system processing and spectral analysis capability.
- PC P4 Based Computer with system control and report software.