

Spectral Gamma Ray and CCL Tool

Collects data for correlation and formation evaluation

Applications

- Correlation to formation and wellbore tubulars
- Formation evaluation of potassium (K), uranium (U) and thorium (Th) elements
- Mineral composition and clay content determination

Features and Benefits

- Fully Probe[®] high-speed digital (HD) platform compatible with fast telemetry
- Available in SRO and memory
- Combinable with ArrayPro and RAS[™] for comprehensive cased-hole formation evaluation

Tool Description

The Weatherford cased-hole spectral gamma ray (SGR) and casing-collar locator (CCL) operates on a common tool bus and can be combined with any HD tool platform tools.

The SGR tool consists of a CCL sensor signal and a sodium iodide gamma-ray detector and electronics. The tool outputs are total GR counts, a 256-channel spectrum of gamma ray energy and the CCL signal. Processing on the surface system analyses the gamma ray spectrum for the three most common natural radioisotopes: potassium (K), uranium (U) and thorium (Th).

Data from SGR processing is used for mineral composition and clay volume calculations. The tool may provide useful insight to radioactive deposits in and around the wellbore.



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Specifications

Ratings and Dimensions

Maximum temperature	350°F (177°C)
Maximum pressure	15,000 psi (103.4 MPa)
Outside diameter	2.75 in. (70.0 mm)
Makeup length	47.7 in. (1,212.0 mm)
Weight	42.1 lb (19.1 kg)

Measurement

Depth of investigation	9.5 in. (241.0 mm)
Precision	0.5%
Accuracy	K +/- 0.5%, U +/- 5,000 ppm, Th +/- 5,000 ppm
Maximum logging speed	25 ft/min (7.6 m/min)

Hardware Characteristics

Materials	Titanium Corrosion-resistant materials used throughout
Combinability	RAS
Acquisition mode	Real-time (with TCU) Memory (with MLT)

