

2 1/2" Product Line

Spectrum Gamma Ray

The Spectrum Gamma Ray (SGR) is an instrument logging the natural gamma radiation. The tool measures the entire gamma ray spectrum from 0 to 3000 keV. It records the total amount of gamma rays and provides quantitative measurements of the ⁴⁰Potassium, ²³²Thorium and ²³⁸Uranium contents of the formation. The Spectrum Gamma Ray Log can be run in open and cased holes with all mud systems and also in dry boreholes.

Specifications

Diameter:	63.5 mm (2.5")	Detector Type:	CsI scintillation crystal
Length:	1700 mm (66.9")		
Weight:	24 kg (53 lbs)		
Max. Temp:	175°C (350°F)	Measure Point (from bottom):	336 mm (13")
Max. Pressure:	140 MPa (20 000 psi)	Spectrum:	0...3000 keV, 256 Channels
Telemetry required:	yes		
Top Connector:	yes		
Bottom Connector:	yes		

Measuring Parameters:

Measuring Range:		Accuracy*:	
GR	0...3000 API	GR	± 3 % of measured values*
K	0...50 %	K, U, Th	±4 % of measured values*
U	0...500 ppm		
Th	0...500 ppm		

Logging Parameters

Recommended:		Recommended:	
Min. Hole Diameter:	100 mm (3.9")	Logging Speed:	3-6 m/min (590 - 1200 ft/hr)
Max.Hole Diameter:	NA	Sample Rate:	selectable
To be decentralized			
in hole sizes above:	305" (12.0")		
Min. Casind ID:	100mm (3.9")		

Displayed Standard Curves

GR in gAPI	Gamma Radiation
K in %	Potassium Content
Th in ppm	Thorium Content
U in ppm	Uranium Content
K/Th	Potassium plus Thorium Content
ChiSq	Chi-Square - a measurement for the quality of spectrum fitting
RThK	Ration between Thorium and Potassium Content
RThU	Ration between Thorium and Uranium Content
RUK	Ration between Uranium and Potassium Content
FlaskTemp °C / °F	Flask Temperature

Combinability

With all 2 1/2" open hole instruments and 3 3/8" open hole instruments

