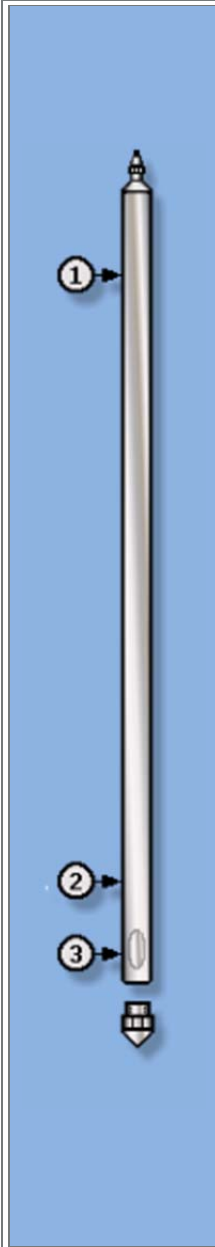


CENTURY GEOPHYSICAL LLC. PRODUCT DESCRIPTION

9058 Natural Gamma-Neutron Logging Tool



Background Information

The Natural Gamma, Neutron logging tool is designed for open and cased hole use. In open holes the neutron log may be converted to porosity units based on a limestone, sandstone or dolomite matrix. The tool's small diameter makes it useful for logging Natural Gamma and Neutron through drill rods in cases where the hole is too unstable to be logged open hole. A 1 Currie Am241 Be source required. Natural Gamma, X-Y Inclinometers and Azimuth are optional.

Features

Properties Measured (see diagram)		Tool Specifications
1. Natural Gamma: 2.2 x 102 mm (0.875 x 4.0 in.) NAI Scintillation Offset: 13.5 cm (5.3 in.)	3. Temperature Offset: 220.4 cm (86.8 in.) 4. Slant Angle & Azimuth: 3-axis magnetometer and 2-axis inclinometer Offset: 213.3 cm (84 in.)	Length: 243 cm (96 in.) Temperature: 80 C (176 F) Diameter: 42 mm (1.625 in.) Pressure: 292 kg/cm ² (4000 PSI) Weight: 12.0 kg (25 lb.) Logging Speed: 9 m/min. (30 ft./min.) Tool Voltage Required: 36 VDC

Sensor Response Ranges

Sensor	Response Limits	Accuracy
Natural Gamma (NG)	0-400,000 API units	+/-5%
Temperature (TEMP)	0 C to 70 C (32 to 160 F)	+/-5%
Neutron, Neutron (NN)	0 - 2000 API	+/-5%
X - Y Inclination (XYI)	0 to 45 degrees	+/-0.5 degrees
Azimuth (AZ)	0 to 360 degrees	+/-2 degrees

CPS to API conversion = 1.0176

Tool Information

Item	Model #	Part #
Tool with NG, TEMP, NN	8058	338000B
Add XYI, AZ	9058	338000A
Source w/Shield Am 241 Be		PLEASE INQUIRE
Source Handling Tool		101502
Deviation Calibration Test Stand		317430