

# Intelligent Litho-Density (iLD)



The Intelligent Litho-Density tool utilizes a Cesium (Cs137) gamma ray source to bombard the formation. Dual detectors measure the energy spectrum and count rates of returned gamma rays whereby both the bulk density and the photoelectric absorption index are calculated. A motorized caliper arm is used to ensure pad contact with the borehole wall, reducing environmental effects while simultaneously providing a hole diameter measurement.

## LOGGING APPLICATIONS:

- Determination of bulk density
- Formation porosity
- Lithology identification
- Identification of gas zones
- Identification of washouts
- Borehole volume

## MECHANICAL:

LENGTH	10.9 ft (3.3 m)
DIAMETER	2.25 in (57 mm)
WEIGHT	128 lbs (58.2 kg)
PRESSURE RATING	20,000 psi (140 Mpa)
TEMP RATING	350 °F (175 °C)
MAX HOLE SIZE	14 in
TENSILE STRENGTH	48,000 lbs (213,514 N)

## MEASUREMENT:

OUTPUT	Bulk Density, PE, Caliper
RANGE	1.2-3.0 g/cc, 0-10 b/el, 3-20 in
VERTICAL RESOLUTION	12 in (30 cm)
ACCURACY	+/-0.015 g/cc, +/-0.15 b/e, +/-0.15 in
DEPTH OF INVESTIGATION	9 in (23 cm)

