

### Open hole

Electronic

-Electro mechanical unit

Detector

Cs-137

Spectrometer detector

unit

# TzSP-LPK-76/90 Digital downhole compensated lytho-density logging tool

is designed for bulk density quantification and rock formation effective atomic number determination within oil/gas open holes

## FEATURES AND ADVANTAGES

- it is to be run with a logging station equipped with digital recorder "Vulkan" and others, to provide recording and storing downhole data in a digital code "Manchester-2"
- processing method provides near-field effects compensation (mudcake thickness up to 20 mm) and referenceless source energy scale temporary variability accounting
- density quantification and rock formation effective atomic number determination provide rock lithology determination according for 3-component model
- the equipment has a field calibrator for bulk density and effective atomic number

## SPECIFICATIONS

Rock bulk density range ρ, g/cm³	1 - 3
Effective atomic number range $Z_{a'}$ atomic unit	10-18
Density basic relative error limits, %	±1.2
Effective atomic number basic relative error limits, %	±2
Compensation range for mudcake effects (mudcake density up to 1.8 g/cm <sup>3</sup> ), mm	20
Downstream amplitude impulse, V	1-10
Power supply, V	50-75
Power consumption, W	40
Maximum operating temperature, °C	80, 120, 150
Maximum hydrostatic pressure, MPa	60
Dimensions, mm: - length - diameter	3080 76/90
- Weigth, kg	up to 60/70

Downhole tool can be run with three-core logging cable

#### **DELIVERY SET:**

downhole tool, technological and applied software



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