LithoFact® NGS Natural Gamma Ray Spectrometry

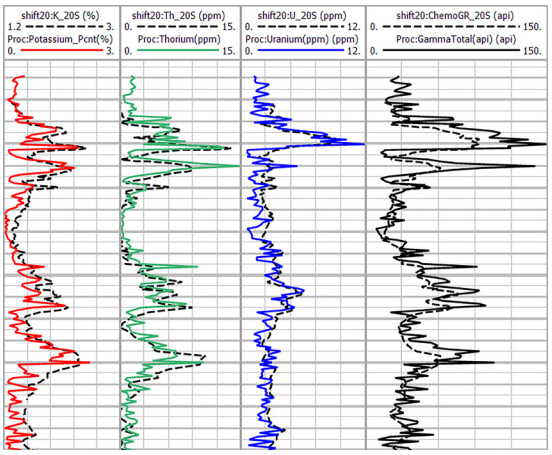
REAL-TIME RESERVOIR INSIGHTS FROM CUTTINGS

OVERVIEW

The LithoFact® NGS natural gamma ray spectrometry solution from Halliburton Sperry Drilling enables a low-risk, cost-effective analysis of drill cuttings at surface. Data derived from this analysis provide customers with enhanced reservoir insights to improve field development decisions and maximize asset value.

Logged NGS measurements increase the geological understanding of shale, uranium-bearing carbonates, and sandstone to better assess reservoir quality, while assisting with the validation of clay typing.

The NGS system is run at surface using rock cuttings to determine the content of potassium (%), thorium (ppm), and uranium (ppm). It is an ideal solution in cost constrained markets, high-pressure/high-temperature (HPHT) wells, and tight holes to identify reservoir characteristics and evaluate formations more thoroughly than other methods.



Logged data from spectral gamma ray analysis of cuttings.

FEATURES

- Fully automated sample loading and data acquisition
- Designed to analyze unwashed, drilled cuttings without processing
- Utilizes the latest NGS technology
- Delivers analysis of elemental potassium, thorium, and uranium

BENEFITS

- Low-risk, surface-based analysis
- Cost-effective tool for use in all markets
- High accuracy detection of concentrations of potassium, thorium, and uranium
- Run in real time or on historical cuttings
- Clay typing validation
- Storage of NGS cuttings containers for future use
- Does not require onsite calibration

NGS ANALYZER CAPABILITIES

The LithoFact NGS system has a robust, built-in analyzer that efficiently performs reliable, accurate analysis based on the logged spectral data. Analysis can be run in real time as cuttings are gathered, or on historical cuttings samples, with results available on screen in as little as 15 to 20 minutes. This rapid evaluation is applicable to all types of wells — Exploration, Appraisal, Development, and HPHT.

Highlights

- Identifies geological markers and zones of borehole instability
- Delivers analysis of elemental concentrations of potassium, uranium, and thorium from the gamma emission of their radioactive isotopes (40K, the 238U series, and the 232Th series)
- Assists in clay typing, shale reservoir evaluation, evaluation of uranium-bearing carbonates, and assessing sandstone reservoir quality
- Delivers clay typing for unconventional wells that can be utilized in sweet spot identification
- Helps to assess cation exchange capacity (CEC) of clays
- Works as a geosteering tool in conjunction with MWD/LWD data

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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