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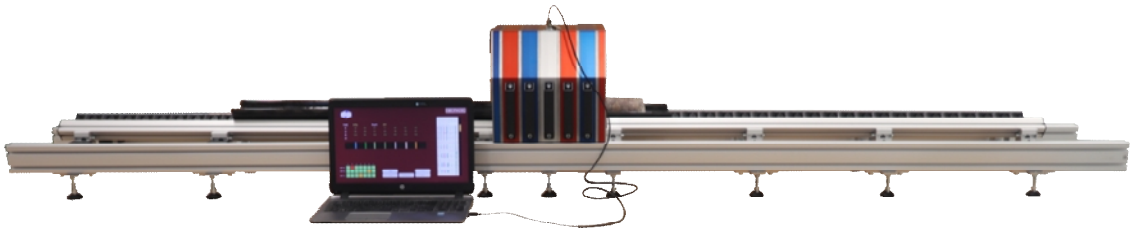
CORELA GRG-01
Spectral Gamma-Ray Logger for Drill Core Scanning



The CORELA GRG-01 Spectral Gamma Logger is the state-of-the-art versatile instrument for laboratory or in-situ gamma-ray and K-U-Th concentration pattern logging.

Developed by Crytur and Georadis in the Czech Republic, the CORELA includes an array of novel, compact and high sensitivity radiation detectors embedded in efficient tungsten shielding and in close contact with the measured sample (core). Its design minimizes the requirement for shielding size and weight while matching the accuracy and precision of larger conventional setups.

The revolutionary modular architecture can combine a series of standardized instrumented segments to perform simultaneous measurements along core samples and provide customizable statistical precision.

Features:

- **High Sensitivity & High Resolution** – New generation radiation detectors which are smaller and highly sensitive are used with FWHM resolution similar to NaI(Tl) but with double the density and sensitivity;
- **Tungsten Shielding Improves Data Sensitivity** – Smaller detectors and their SiPM allow the use of tungsten shielding, increasing gamma-ray attenuation and improving data sensitivity;
- **Better Data Analysis** – The CorelaView software combines the Least Squares method with an advanced software algorithm to optimize the calculation of K-U-Th concentrations, providing better data quality than the traditional Stripping Ratio method;
- **Fast Data Acquisition** – Users can measure up to 40m of core during an 8 hour shift (assumes that a single measuring segment is used to scan 10cm diameter core with an expected minimum detectable activity of 4 ppm for Uranium);
- **Modular Upgrades** – The base CORELA system includes one measuring segment with 3 detectors. To increase productivity, up to 7 measuring segments can be combined.
- **Easy Field Deployment** – The CORELA is designed to be moved easily from one mining camp to another. Its small size, reduced weight and modular concept make it simple to be disassembled, shipped and reassembled faster at a new location.

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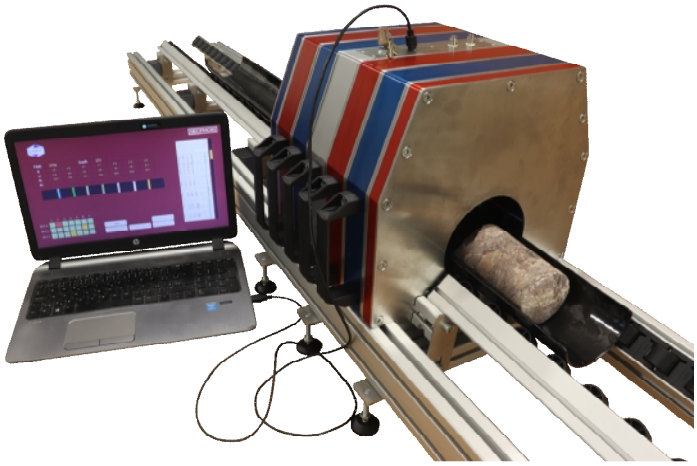

Base CORELA System with 1 Measuring Segment (Shown in Silver)

How the Modular Architecture Works

The CORELA uses a modular architecture of measuring, shielding and lateral segments, making it highly customizable. The base system includes 1 measuring segment (M) with 3 detectors embedded in tungsten shielding, 4 standard lead shielding segments (S), and 2 lateral segments (L) with a conveyor system. Deployment of the base CORELA system is as follows: L-S-S-M-S-S-L.

Up to 7 measuring segments can be combined to increase productivity. As additional measuring segments are added, the spacing between measurements can be adjusted in increments of 5cm (the width of M and S segments) by adding any number of shielding segments between measuring segments. For example, a system with 3 measuring segments with 5cm spacing and 15cm spacing would be deployed as follows:

- 5cm Spacing: L-S-S-**M-M-M**-S-S-L
- 15cm Spacing: L-S-S-**M-S-S-M-S-S-M**-S-S-L

Additional Benefits

- **Simultaneous K-U-Th Concentration Measurements** – The operator can select the K-U-Th concentration units being measured: % and ppm (traditional), Bq/kg - SI or W/kg (geothermal);
- **Different Core Configurations Can Be Measured** – Regular cores from 2 to 10 cm in diameter (including BQ, NQ, HQ, PQ and others) can be measured, including split and fragmented cores;
- **Automatic Gain Stabilization** – The CORELA's advanced method of automatic gain stabilization uses natural background radiation. This unique stabilization method eliminates the need for an additional radioactive check source, facilitating the system's shipment to different locations;
- **Measurement Process Can Be Automated** – The CORELA can be controlled by a computer, automating the measurement process;
- **Certified Calibrated Standards** – Certified calibrated standards are included with the CORELA, providing measurement traceability; and
- **Ruggedized System For Difficult Conditions** – The CORELA is designed to work in challenging environments. It's resistant to impact and difficult environmental conditions, including a wide range of temperatures, high humidity and dust.

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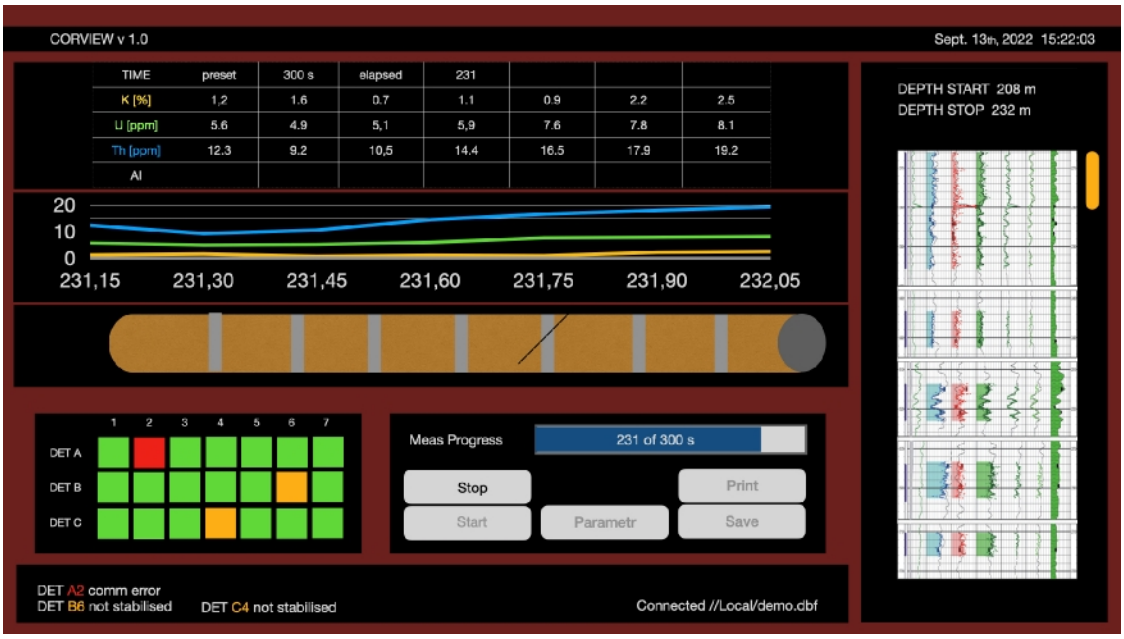

CorelaView Software with data from 7 Measuring Segments

CorelaView Software

The CORELA system includes the CorelaView software with the following capabilities:

- Control capability (self-diagnostics, auto calibration)
- Data collection, processing and archiving
- Graphic output of the depth profile
- Concentration of K, U, Ue, Th, activity index and API at depth
- Variable measuring modes (static, slow motion)
- Tasks manager for automated processing
- Remote control

Specifications

Detectors in each measuring segment 3
Max number of measuring segments 7
Max number of detectors 21
Max number of spectrometers 21
Sample diameter (includes BQ, NQ, HQ, PQ) ..... 2-10 cm
Operating length ..... Min 1.5 m
MCA channels 1024

Operating temperature range ..... -20°C to +50°C
Storage temperature ..... -20°C to +60°C
Protection rating IP64

Weight per individual segment:
- Measuring (M) ..... 42 kg
- Standard Shielding (S) ..... 30 kg
- Lateral (L) ..... 20 kg

Weight for base system ..... 220 kg
Includes segments L-S-S-M-S-S-L and accessories
Plus weight for conveyor system ..... 45 kg

Power supply ..... USB C or external 24 V DC
Data Connection ..... LAN Ethernet, min 10Mbit, USB 2.0

Specifications are subject to change without notice (January 23, 2024)

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