



GEOPHYSICAL LOGGING PROBES

**Total
Gamma**

NGRS

MEASUREMENT PRINCIPLE

The total gamma probe measures naturally occurring radioactivity. The most common naturally occurring radioactivity is associated with K^{40} , Th^{232} and $U^{232-238}$ which are associated with certain rocks (eg clays/shales) making the gamma curves an excellent lithological identifier tool. A scintillation detector system consisting of a sodium iodide crystal and a photomultiplier tube to measure gamma radiation.

Ideally suited for:

- Uranium exploration and mining.
- Uranium grade determination.
- Coal and iron ore exploration
- Sedimentary studies.
- Logging run depth matching.

Operations & Calibration:

- Minimum borehole diameter of 50mm.
- Air and/or fluid filled borehole.
- Open borehole and/or cased borehole.

Typically recorded in an uphole logging direction at logging speeds of 3 – 5 m/min.

(Downhole logging can be recorded for QA purposes)

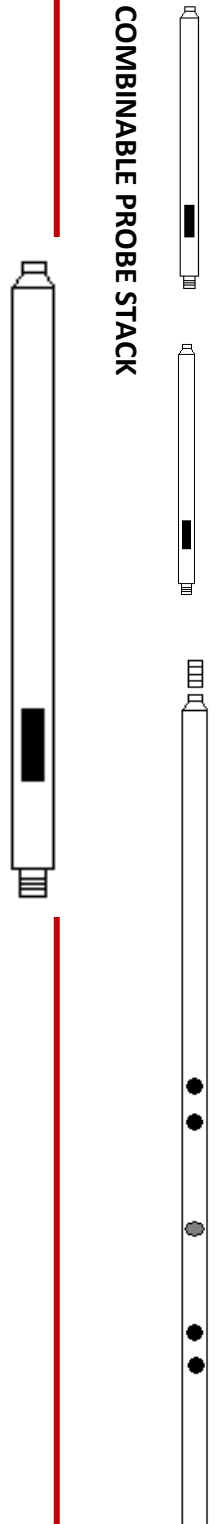
Calibration via Adelaide Models – AM1, AM2, AM3 for Uranium grade and AM6 for API calibration.

Probes can be stacked to the top and the bottom of the probe. Typical combinations are:

Gamma, filtered gamma, magnetic deviation, caliper, fluid temperature/conductivity dual laterolog, dual induction, formation density, fullwave sonic, gyroscopic deviation.

SINGLE PROBE

COMBINABLE PROBE STACK



PHYSICAL SPECIFICATIONS

| | |
|---------------------|-------------|
| Weight | 5.0kg |
| Length | 0.63m |
| Diameter | 38mm |
| Crystal size | 25mm x 50mm |
| Maximum Pressure | 20 MPa |
| Maximum Temperature | 80°C |



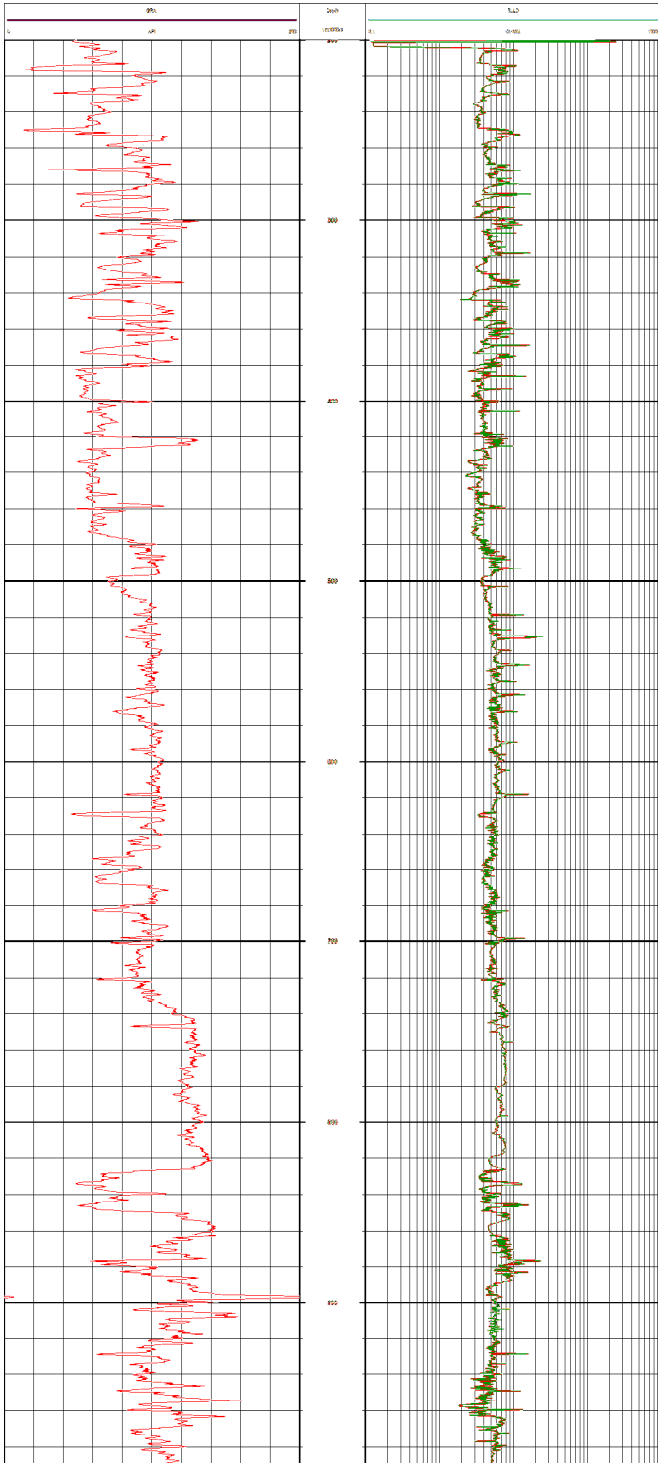


GEOPHYSICAL LOGGING PROBES

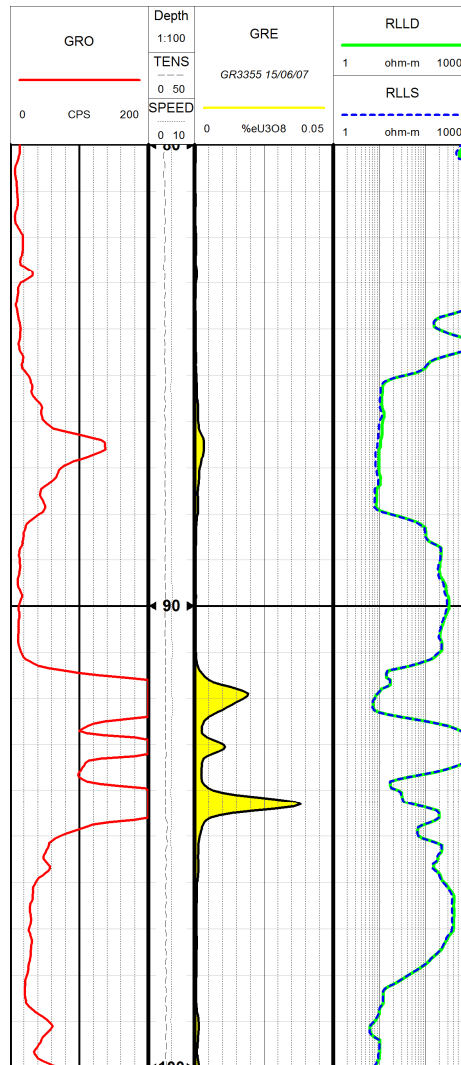
Total Gamma

NGRS

SEDIMENTARY



URANIUM



SINGLE PROBE



COMBINABLE PROBE STACK

