

ODP
Processing Notes:
Multi-Sensor
Gamma Ray Tool Data



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Processing Notes: Multi-Sensor Gamma Ray Tool Data

First leg logged: Leg 191
Last leg logged: Leg 208

Tool Used

The Multi-Sensor Gamma Ray Tool (MGT) was designed at BRG in 1999-2000. The data acquisition software was an in-house LabView program and resided on a 500 Mhz Personal Computer.

Data Processing History

Data from the following legs were processed by Trevor Williams in the spring of 2004:

Leg 191: Hole 1179D
Leg 194: Hole 1194B
Leg 198: Hole 1207B
Leg 199: Holes 1218A and 1219A
Leg 202: Holes 1238A, 1239A, 1241B
Leg 207: Holes 1257A, 1258C, 1260B, 1261B
Leg 208: Hole 1265A

Processing included six steps:

1. Manual editing to remove occasional anomalous values.
2. Depth correction and stacking by using an in-house Labview program, "MGT-resampler."
3. Depth-shifting from below rig-floor (mbrf) to below sea-floor (mbsf), based on the sea-floor depth determined from the Schlumberger gamma ray logs.
4. Recalculation of potassium, uranium, and thorium based on calibrations made in test holes with known K, U, and Th concentrations using an in-house Fortran program.
5. Depth-matching to a depth reference log using Schlumberger Geoframe log analysis software.
6. Creation of tab-delimited ASCII files using Schlumberger Geoframe log analysis software. The files are finally included in the online data base.

Data storage

The original and processed gamma ray data are saved on zip disks and 4-mm DAT tapes. Processed data are available through the online database, along with any related documentation.