47. MAGNETIC SUSCEPTIBILITY MEASUREMENTS OF LEG 112 CORES

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Leg 112 cores were measured for magnetic susceptibilities shortly after their return, for archiving, to the Ocean Drilling Program Gulf Coast Repository (GCR) in College Station, Texas. The location of all sites measured is shown in Figure 1. Cores from Holes 679B, 679C, and 679D; 680A and 680C; 681B and 681C; 684A; 686A; and 687A and 687B were measured with a Bartington Model MS1 magnetic susceptibility meter having a 100-mm pass-through sensor coil. All measurements were performed in the cold storage facility at the GCR to prevent any temperature drift that could produce erroneous readings.

Measurements were taken on either whole-round unsplit cores or the archive half of split cores. Data obtained from split cores were normalized to be comparable with data obtained from whole-core measurements. Core sections, 1.5 m long, were measured at 3-cm intervals. Drifts were measured before and after each section by taking a measurement with no core in the sensor coil to establish a linear drift correction for each section.

To minimize edge effects at the top and bottom of each section, measurements began and concluded 6 cm from the ends of each section. This precaution was also taken where large voids were present in the section. Because the susceptibility meter is sensitive to susceptible material nearby, as well as within the region of the sensing coil, small voids were noted during measurement and accounted for after drifts were corrected.

Susceptibility response from rust contamination was occasionally noted. Where susceptibility response was obviously due to rust contamination at the top of a core, erroneous data were deleted.

Magnetic susceptibility curves for all holes measured are shown in Figures 2 through 7. All susceptibility values are reported in SI units. Magnetic susceptibility data are available from the Database Supervisor, Ocean Drilling Program, 1000 Discovery Drive, College Station, TX 77840.

Figure 1. Site locations for Leg 112 (Peruvian margin).

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Figure 2. Magnetic susceptibility response of Hole 679B, Hole 679C, and Hole 679D.
Figure 3. Magnetic susceptibility response of Hole 680A and Hole 680C.
Figure 4. Magnetic susceptibility response of Hole 681B and Hole 681C.
Figure 5. Magnetic susceptibility response of Hole 684A.

Figure 6. Magnetic susceptibility response of Hole 686A.
Figure 7. Magnetic susceptibility response of Hole 687A and Hole 687B. Data from these holes are displayed in log scale because of the large variability of values.