

Compilation of borehole temperature profiles and estimation of heat flux using a one-dimensional heat flow model

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In order to understand the geothermal structure of the Japanese islands, 1039 borehole temperature profiles have been compiled from geothermal borehole data (Yano and Muraoka, 1986), terrestrial heat flow data of Japan (Yamano et al., 1997) and other unpublished borehole data. Heat flux from each borehole was calculated based on a one-dimensional heat and fluid flow model. The typical heat flux value of about 0.5 W/m² in volcanic and geothermal areas is higher than the value of about 0.05 W/m² in non-volcanic areas.