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## **HEAT FLOW REGIMES IN SEDIMENTARY BASINS OF MALAYSIA**

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Thermal conductivity and geothermal gradient are determined from the measurements made on cores and logging records respectively. The average thermal conductivity estimation of well columns are made using the lithostratigraphic method. In the determination of the geothermal gradient, the corrected logs' Bottom Hole Temperatures are used to estimate the true formation temperatures.

The highest heat flow region lies over the Malay Basin and the western portion of the Sarawak Basin, i.e. the Western Luconia, South West Luconia and the Balingian provinces ( $60 \text{ mWatt/m}^2$  -  $110 \text{ mWatt/m}^2$ ). The trend varies from high heat flow in western Balingian province and normal heat flow in the eastern Balingian and Baram Delta. The Central Luconia has a high heat flow in the north eastern part and over the Sabah basin of which the average is about  $55 \text{ mWatt/m}^2$ .

High anomalies of heat flow density are related to the basement involved tectonics, young structurings and hydrocarbon accumulations over all areas. In Central Luconia, prominent high heat flow anomalies are more associated to gas fields than the structurings or lithology. It is suggested that the upward fluid movement may form the major cause for the anomaly in the Central Luconia Province.