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**QUATERNARY GEOLOGY OF SEBERANG PRAI,  
PULAU PINANG AND KUALA KURAU**

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Quaternary geological mapping in Seberang Prai, Penang Island and Kuala Kurau was started in February 1983 and completed in September 1988. It covers the lowlands and coastal areas of the Topographic Map Sheets 28, 39 and southern part of Sheet 16. A total of 12 deep boreholes and 288 shallow holes were drilled in the course of the investigation.

Generally the stratigraphy of the area is divided into Simpang Formation, Gula Formation and Beruas Formation. The lithology of the Simpang Formation is made up of gravel, sand, clay and locally silt and peat. It is accumulated or deposited in terrestrial environment by fluvial processes during the Pleistocene. The Gula Formation is subdivided into five members viz. the Bagan Datoh, Telok Intan, Port Weld, Parit Buntar and Matang Gelugor. Generally the lithology consists of silt, clay, sand, sometimes gravel and peat and often contain shells. The environment of deposition is interpreted as shallow marine, estuarine and littoral and Holocene in age. The Beruas Formation constitutes sand, gravel, clay, silt and occasionally peat accumulated or deposited in terrestrial environment by fluvial processes during the Holocene.

Clay deposits of economic significance are found south of Bukit Mertajam and in the north-eastern part of the area. Potential aquifers were located around Kepala Batas and east of Butterworth.