

Paper B18

Survei graviti untuk kajian morfologi kars di subpermukaan kawasan Lembah Kinta, Perak - Penemuan awal

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Satu survei graviti telah dijalankan oleh kumpulan geofizi UKM di Lembah Kinta, Perak pada Jun 2009 dan Februari 2010. Kawasan kajian terletak di antara garis latitud di Selatan $4^{\circ}18'8.4''$ hingga ke Utara $4^{\circ}44'04''$ dan garis longitud di Barat $100^{\circ}55'03''$ hingga ke Timur $101^{\circ}57'55.8''$. Kawasan kajian merupakan satu lembah yang di apit oleh Banjaran Titiwangsa di bahagian timur dan Gunung Kledang di bahagian baratnya.

A regional gravity survey had been carried out in Kinta Valley, Perak in June 2009 and February 2010. The study area located between latitude line of $4^{\circ}18'8.4''$ N and $4^{\circ}44'04''$ N and longitude line of $100^{\circ}55'03''$ E and $101^{\circ}57'55.8''$ E. The valley situated at the centre between the peninsular main range at the western part and Kledang Hill in the east. A total of 372 gravity stations had been measured using the Scintrex CG-5 gravity meter, with stations interval range between 0.5 – 2 kilometre. The Tiernan-Wallace altimeter was use to determine the height of every stations. The reduction process had been done using the software "Magnetic and Gravity Reduction" (MREDUC), and then been gridded, filtere and analysed using the Oasis Montaj(Geosoft) software.

The gravity survey in Kinta Valley,Perak succesfully delineated the difference lithological boundary in the subsurface due to fault in regionale scale. A total of 20 anomalies due to karstic morphology in the subsurfece such as depressions and pinacles were clearly delineated. From the total horizontal derivative map done for regional and the residual map the gravity survey succesfully delineated many lineament structures due to tectonic activity in the subsurface at depth and shallow part respectively.