

**Pencirian geomekanik batuan syis grafit Bt. Bujang,  
Kuala Kubu Baru, Selangor Darul Ehsan**  
(Geomechanical characterisation of a graphitic schist at Bt. Bujang,  
Kuala Kubu Baru, Selangor Darul Ehsan)

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Pencirian geomekanik batuan syis grafit dari Bt. Bujang, Kuala Kubu Baru, Selangor Darul Ehsan dilakukan dengan pemetaan profil luluhawa, survei seismos biasan, ujian pantulan tukul Schmidt, ujian indek kekuatan beban titik  $I_{s(50)}$  [MPa] dan ujian kebolehtahanan pemeroian  $Id_2$  (%). Nilai halaju sebenar gelombang P,  $V_p$  bagi gred luluhawa I ialah diantara 2,000–2,500  $ms^{-1}$ , gred II diantara 1,500–2,000  $ms^{-1}$ , gred III diantara 900–1,500  $ms^{-1}$ , gred IV diantara 750–900  $ms^{-1}$ , gred V diantara 400–750  $ms^{-1}$  dan gred VI diantara 250–400  $ms^{-1}$ . Ujian mekanik batuan dilakukan atas bahan yang bersifat batuan, iaitu gred I, II dan III. Bagi gred I, nilai purata pantulan tukul Schmidt ialah 22,  $I_{s(50)}$  ialah 0.99 MPa dan  $Id_2$  ialah 90.32%. Masing-masing nilai purata bagi gred II ialah 16, 0.34 MPa dan 83.81% manakala untuk gred III ialah 11, 0.13 MPa dan 75.47%. Gabungan nilai indeks kekuatan beban titik dan kebolehtahanan pemeroian dapat membezakan tiga gred luluhawa ini secara kuantitatif.

*The geomechanical characterization of a graphitic schist from Bt. Bujang, Kuala Kubu Baru, Selangor Darul Ehsan was carried out using weathering profile mapping, refraction seismic survey, Schmidt hammer rebound test, point load index strength  $I_{s(50)}$  [MPa] and slake durability test,  $Id_2$  (%). The true P-wave velocity,  $V_p$  for weathering grade I was between 2,000–2,500  $ms^{-1}$ , grade II between 1,500–2,000  $ms^{-1}$ , grade III between 900–1,500  $ms^{-1}$ , grade IV between 750–900  $ms^{-1}$ , grade V between 400–750  $ms^{-1}$  and grade VI between 250–400  $ms^{-1}$ . The rock mechanics tests were conducted on rock material, that is grade I, II and III. For grade I, the average Schmidt hammer rebound value was 22,  $I_{s(50)}$  was 0.99 MPa and  $Id_2$  was 90.32%. For grade II these values were 16, 0.34 MPa and 83.81% and for grade III they were 11, 0.13 MPa and 75.47%. A combination of the point load index strength values and the slake durability values enabled a quantitative differentiation of the three weathering grades.*