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MODELING OF LAMPAS KAOLIN OCCURRENCE, KM 12, SPG. PULAI-POS SLIM, IPOH BY SHALLOW SEISMIC REFRACTIONS IMAGING

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ABSTRACT

This paper describes a case study of shallow seismic refraction imaging in delineating a known kaolinitic occurrence overburden (pallid zone) near the Bukit Lampas, km 12, Spg Pulai-Pos Slim road, Ipoh This kaolinite rich pallid zone is embodied in the Slim granite of Main range granite intrusion with poor layered velocity structure. Lampas kaolin is a product of both hydrothermal and in-situ weathering of sugary aplite, leucogranite, pegmatites and medium to coarse-grained, porphyritic granites of the area. Numerous occurrences of quartz-feldspar veins stockworks, silicification and illite alteration (argillic zone) were evident and characteristic of the hydrothermal fluid influx system of the area. Features such as geometrical shape, thickness, lateral extension which related to geological features and weathering profile of the area was analyzed in an attempt to model the clay occurrence appearance. Seismic velocity model elucidated that the kaolinitic clay formation at the targeted area was confined in a narrow zone or channel, and at least within a depth of 5 to 15m ($Vp < 300ms^{-1}$) and 130 meter wide. The thickest segment was found near the lower part of hill slope. This occurrence was also lithological, geomorphological and structurally control.

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