

ABSTRACT

The interstitial waters at the sites in Mukim Klang (Site 1 near Port Klang, and Site 2 near Shahpadu Toll), in the District of Sabak Bernam (Site 3 near Sg. Lang and Site 4 at landfill) and in the District of Teluk Intan (Site 5) have been analysed by Atomic Absorption Spectroscopy (AAS). The heavy metals obtained are, Fe, Mn, Pb, Zn, Ni, Cu and Cd . Ca is considered as alkaline earth element .The concentrations of these metals are in general above the permissible limit for domestic water supply and therefore must be treated and purified before the water can be used for domestic consumption. The effect of soil pH and moisture content on heavy metal distribution with depth into the soil have also been studied. It is found that the soil pH is slightly alkaline in nature ranging from 7.3 to 7.9. This could be attributed to the high Ca content in the interstitial water. This is quite true for the sites at Sg. Lang and landfill. However other factors are also influential to the distribution of heavy metals in interstitial water. Lateral and vertical movements of water and leachate could also be deciding factors on the heavy metal content and distribution with depth into the soil. This appears true for the same metals at other sites under study. Landfills should be lined with a containment system that will allow very little leakage to pass through its bottom lining so that ground water pollution can be prevented.