

Adverse Impacts of Poor Wastewater Management Practices on Water Quality in Gebeng Industrial Area, Pahang, Malaysia

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Abstract : This study was carried out to investigate the adverse effect of industrial waste water on surface water quality in Gebeng industrial estate, Pahang, Malaysia. Surface water was collected from 6 sampling stations. Physico-chemical parameters were characterized based on in-situ and ex-situ analysis according to standard methods by American Public Health Association (APHA). Selected heavy metals were determined by using Inductively Coupled Plasma Mass Spectrometry (ICP MS). The result revealed that the concentration of heavy metals such as Pb, Cu, Cd, Cr and Hg were high in samples. The result showed that the value of Pb and Hg were higher in the wet season in comparison to dry season. According to Malaysia National Water Quality Standard (NWQS) and Water Quality Index (WQI) all the sampling station were categorized as class IV (highly polluted). The present study revealed that the adverse effects of careless disposal of wastes and directly discharge of effluents affected on surface water quality. Therefore, the authorities should implement the laws to ensure the proper practices of waste water management for environmental sustainability around the study area.

Keywords : water, heavy metals, water quality index, Gebeng

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