



## Characterization of Leachate from Jeram Sanitary Landfill-Malaysia

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**Abstract :** Landfill leachate is the most common way of handling solid waste in Malaysia, due to high cost involved with advanced technologies for landfilling, lack of technical capacity, lack of knowhow to manage landfill sites. Landfill leachate generated from the MSW landfill sites must be treated before dispose into the environment as it creates many social and environmental problems. Characterization of landfill leachate is important to identify the most critical pollutants present in the leachate and thereby to introduce suitable and applicable treatment technologies such as in-situ permeable reactive barrier technologies for contaminant remediation. Therefore, the objective of this research is to characterize landfill leachate collected from Jeram landfills in Malaysia. The results of the leachate samples showed the concentration of organic compounds, expressed as COD, were 49000 mg/L; the proportion of easily biodegradable organics (BOD<sub>5</sub>) was 14790 and the total nitrogen concentration was 4500 mg/L. The ammoniacal (NH<sub>3</sub>-N) concentration in the leachate studied was about 3800 mg/L and the color values for biological treated samples were (10200 Pt-Co) indicating the biological treatment system alone would not be effective in reducing the color. The results of this study will be used in developing site specific remediation technologies in landfill leachate treatment.

**Key words:** Landfill leachate, Characterization, Jeram, Malaysia.