

## **Research study on soil and water quality in ball clay mining areas : with reference to Dediawala in the Kaluthara District**

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This research was conducted in ball clay deposit which is situated at Dediawala in the Kaluthara District of Sri Lanka. The study was conducted during October 2007- February 2008. The principle objective of the study was to identify the effects on soil due to mining ball clay. Three main areas, were selected depending on different stage of ball clay mining such as the region which is mining ball clay (region A), the region which has not been mining clay yet (region B) and the region which back filled (region C). There soil colour, pH value, Electrical Conductivity, water content was compared in these three areas. Statistical methods were used to analyze these data. In A and B regions soil sample were collected from the deposit layers. But in region C one soil sample was collected which was used to back filled. Results revealed that the soil colour region A and B was same and region C was different from others. Water content and pH value of the three regions seem to be different. According to the pH testing of the soil, revealed that the soil in region A and B was acidic, but the soil in region C was basic. But the Electrical conductivity of the groundwater was same due to infiltrated precipitated water. According to these results ball clay mining effects the soil colour, pH values and water content of the soil, is the final decision of that study.

**Key words:** Ball clay, Mining, Soil quality, Water quality

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