D-55 Effect of effluent of Veyangoda textile mill on the water quality of nearby wells

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Drinking water can be polluted by the high concentration of chemicals used in industrial processes. The effect of industrial waste on the quality of drinking water was studied in the effluent outlet of the textile factory of the Veyangoda Textile Mill.

4 wells in this area were selected to investigate the spatial and temporal variations in the water quality and distribution and abundance of algae with special reference to water pollution effects by analysing monthly samples from December 1994 to May 1995. Water temperature, conductivity, turbidity, suspended solids, pH, dissolved oxygen content, Biochemical oxygen demand (BOD), Chemical oxygen demand (COD), phosphate concentration, nitrate concentration, grease and oil content, total algal count and heavy metals such as lead, copper and iron were analysed.

Among physicochemical characteristics of water, the conductivity, suspended solids, pH, BOD, COD, phosphate concentration, nitrate concentration, grease and oil content and heavy metals were recorded to be highest in the wells that are closer to the effluent outlet than in the control well. This could be due to the effects of industrial waste. The control well recorded a normal pattern of growth of algae while the wells that were closer to the effluent outlet indicated effects of effluent on algal growth.