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Abstract

The inorganic chemical water quality of the Ismailia Canal / Egypt was studied in 2003 and 2004 at seventeen different sites from the main canal between Cairo and Ismailia. Additional samples were taken from selected discharges and groundwater sources. As the Ismailia Canal is fed by water from the Nile some samples were taken from the Nile near Aswan for comparative reasons too. Water samples were analysed for sum parameters, salts, heavy metals and natural radioactivity. Especially in the Greater Cairo Area due to different uncontrolled discharges pH and conductivity changed significantly when proceeding from up to downstream sites. The water temperature increased significantly during the first 20 km. The main reason was the discharge of warm water used to cool machinery in the industrial suburb of Cairo.. Iron, Zinc and Manganese were found in low concentrations. Because of dilution effects the amounts of dissolved salts were still below the German "Trinkwasserverordnung". A higher total organic carbon level indicated the presence of organic contaminants however. The natural radioactivity level was in the normal range.