

◆ Research Paper

# Groundwater Quality Assessment using Water Quality Index (WQI) in Liaquatabad Town, Karachi, Pakistan

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**Abstract:** The aim of present study is to evaluate the groundwater quality of Liaquatabad Town using water quality index (WQI) measured through physico-chemical parameters. For this purpose, groundwater samples (n = 31) were randomly collected through boring wells from various sites of study area. Data revealed that TDS content of groundwater is very high (mean: 1045.55 mg/L) which is double the WHO limit for drinking purpose. Elevated concentration of Ca, Na, Cl, and HCO<sub>3</sub> is reported in 85%, 33%, 40% and 70% wells respectively which are exceeding the corresponding WHO guideline for drinking purpose. Very high concentration of these major ions (Ca, Na, Cl, and HCO<sub>3</sub>) is indicative of sewage mixing with groundwater in Liaquatabad. The calculated value of water quality index (WQI = 66.1) shows that groundwater in Liaquatabad town is not suitable for drinking purpose but can be used for industrial and irrigation purpose.

**Keywords:** Groundwater, quality, water quality index, Liaquatabad town.



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