

A survey was conducted in the Obuasi Municipality in Ghana to assess the impact of some physico-chemicals in waters of mosquito breeding sites from 15 randomly selected communities. The water samples, collected fortnightly for eight months, were analyzed using spectrophotometry and other standard laboratory protocols at the AngloGold Ashanti Environmental Quality Assurance Laboratory for temperature, total suspended solids, total dissolved solids, dissolved oxygen, electrical conductivity and pH. The physico-chemical parameters which ranged from $17.03 \pm 0.18^{\circ}\text{C}$ - $24.06 \pm 0.18^{\circ}\text{C}$ (temperature), $17.03 \pm 4.04\text{mg/L}$ - $96.67 \pm 4.04\text{mg/L}$ (TSS), $1.09 \pm 3.23\text{mg/L}$ - $35.67 \pm 3.23\text{mg/L}$ (TDS), $3.97 \pm 0.13\text{mg/L}$ - $7.43 \pm 0.13\text{mg/L}$ (DO), $17.00 \pm 1.30\mu\text{Scm}^{-3}$ - $83.00 \pm 1.30\mu\text{Scm}^{-3}$ (EC) and 7.77 ± 0.0 - 10.70 ± 0.01 (pH) were much lower relative to the EPA Maximum Permissible Limits. It is apparent that under rising temperature conditions of climate change, the mosquito's habitat may be highly favoured for adaptation and prolific breeding in the tropics and this further creates the opportunity for research partners to get actively involved in finding integrated control measures to counteract the life cycle of the pest. Keywords: Anglogold Ashanti, Obuasi Municipality, Physico-chemical Analysis, Mosquito Breeding Waters