

A study was conducted to determine the potable quality of groundwater from point collection sources in the Asante Mampong Municipality of Ghana in 2011. Groundwater was collected from 4 actively used hand pump boreholes and dugout wells for analyses using various standard laboratory methods (APHA, AWWA, WEF, 1998) to determine some physical, chemical and biological quality effects of the groundwater. The study recorded average values of 5.95, 355.55 ($\mu\text{S}/\text{cm}$), 3.225 (NTU) and (7.565 and 0.0225)mg/L for pH, conductivity, turbidity, DO, TSS in the groundwater. The differences in levels of BOD₅, TDS, NO₃-N, Chloride and NO₂-N were highly significant ($P < 0.000$) even though Fe and ammonia did not show significant differences. Detection of these chemicals in drinking water has several implications, particularly in evaluating potential human health effects or ecological outcome; though the levels detected in this present study were within the permissible limits proposed in the 2006 WHO Guidelines for Drinking Water Quality. Significant differences in total coliforms and Salmonella contamination were observed to have negative health implications. Stake holder discussion is mandatory to partnering appropriate solutions to the groundwater quality problems. Key words: Well, borehole, physical, chemical, biological, health effect, water quality.