Bacteriological Analysis of Well Water Quality in Rural Areas of Ilaro, Ogun State

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Abstract

The study was conducted to carry out bacteriological analysis of well water quality in rural areas. The lowest counts of total bacteria were recorded in sample Ijado 1 with 2.28×10^2. Total bacterial count in the well waters sampled ranged from zero to 2.5 x 10^2 cfu/ml and zero to 8.1 x 10^2cfu/ml, respectively. The sample with low bacterial counts and total coliform counts could be considered to be of better quality for domestic use than the ones with the highest counts of both bacterial counts and total coliform counts. After the bacteriological analysis, most of the samples were found to be contaminated and not suitable for drinking and domestic use due to the level of total viable count and total coliform count. In Sample Ijanna 1, Ijanna Ijanna 2 and Ijado 2 contain *E. coli* and thereby are not suitable for drinking and domestic use, because it also contains *faecal coliform* i.e. *E. coli* in any 100 mL of the water sample. However, the samples of Ijanna 1, Ijanna 2 and Ijado 2 also showed Salmonella growth. The well water used for drinking and domestic uses in Ijanna and Ijado was not found in an acceptable range in bacteriological safety. The identification of potentially pathogenic bacteria such as *E. coli* was a good indicator of safety problems.

Keyword: Bacteria, Well water, Quality, Coliform, Drinking.