

Assessment of Quality of Drinking Water in Residential Houses of Kuwait by Using GIS Method

Authors : Huda Aljabi

Abstract : The existence of heavy metals similar to cadmium, arsenic, lead and mercury in the drinking water be able to be a threat to public health. The amount of the substances of these heavy metals in drinking water has expected importance. The National Primary Drinking Water Regulations have set limits for the concentrations of these elements in drinking water because of their toxicity. Furthermore, bromate shaped during the disinfection of drinking water by Ozonation can also be a health hazard. The Paper proposed here will concentrate on the compilation of all available data and information on the presence of trace metals and bromate in the drinking water at residential houses distributed over different areas in Kuwait. New data will also be collected through a sampling of drinking water at some of the residential houses present in different areas of Kuwait and their analysis for the contents of trace metals and bromate. The collected data will be presented on maps showing the distribution of these metals and bromate in the drinking water of Kuwait. Correlation among different chemical parameters will also be investigated using the GRAPHER software. This will help both the Ministry of Electricity and Water (MEW) and the Ministry of Health (MOH) in taking corrective measures and also in planning the infrastructure activities for the future.

Keywords : bromate, ozonation, GIS, heavy metals

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