

Evaluation drinking water quality from various distribution stations.

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Abstract

The purpose of this project was to study the quality of water for public consumption. The surveillance quality of drinking water from the drinking water distribution station by the Department of Groundwater Resources was done from 2020 to 2022 using a water sampling method. In 2020, the water sampling came from 21 drinking water distribution stations, and then increased the number of stations to 32 and 121 stations in 2021 and 2022, respectively. The samples were analyzed in the laboratory in terms of physical and chemical parameters according to the quality of drinking water standard. We compared the quality of water before and after filtering through the system, following the World Health Organization's (WHO) drinking water quality standard (year 2017). The results from the random sampling of water samples from the drinking water station of the Department of Groundwater Resources study showed that the water before filtered had passed the standard at only 7, 8, and 2 stations, or representing 33, 25, and 2 percent, from 2020 to 2022, respectively. Nonetheless, the filtered water met the standard at 21, 32, and 121 stations, representing a perfect score, which tends to pass the WHO drinking water quality criteria.

In conclusion, the groundwater for consumption that goes through the filtered system from the Department of Groundwater Resources has passed the standard when compared with the one without filtered. Therefore, for the safety issue, the quality of water consumption needs to be monitored regularly for the quality of people's lives.

Keywords: Drinking water quality, Various distribution stations, Standard.