Determining the Chemical Quality of Drinking Water in Central Serbia

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Healthy drinking water is a basic prerequisite for good health, as it is necessary for maintaining life and personal and general hygiene. The World Health Organization (WHO) classified the quality of drinking water into twelve basic indicators of the health status of a country's population. The quality of drinking water is a constant task for the employees of anywater factory. Quality drinking water implies the satisfaction of high quality criteria that can only be achieved with a good knowledge of the basic processes of eutrophication and proper management of the accumulation. Management, among other things, implies the implementation of necessary protection measures in the watershed and adequate monitoring.

This study based on the spectrophotometric determination of the chemical parameters of water, i.e. content: manganese, ammonia, nitrate, nitrite, iron and aluminum in raw and final water plants. Mn for the raw water ranged from 0.024 mgMn/l to 0.061 mgMn/l, while for the final water it was 0.000 mgMn/l. Fe for the raw water ranged from 0.000 mgFe/l to 0.043 mgFe/l, and for the final water it was 0.000 mgFe/l. The concentration of NH_4^+ for the raw water ranged from 0.026 mg(NH_4^+)/l to 0.122 mg(NH_4^+)/l, and for the final water it was 0.000 mg(NH_4^+)/l. According to the measurements, NO_3^- concentration for the raw water ranged from 0.986 mg(NO_3^-)/l to 1.548 mg(NO_3^-)/l, and for the final water from 1.158 mg(NO_3^-)/l to 1.594 mg (NO_3^-)/l. While NO_2^- concentration for the raw water ranged from 0.002 mg(NO_2^-)/l to 0.004 mg(NO_2^-)/l, and for the final water it was 0.000 mg(NO_2^-)/l.

The obtained results for drinking water are in accordance with Drinking Water Quality Standards of the Republic of Serbia.

Keywords: raw water, final water, the spectrophotometric

References

1. Drinking Water Quality Standards Handbook of the Republic of Serbia, No. 75/15, 2013.