

ABSTRACT

Rohmah Widyaningrum. B.1710073. *Physicochemical and Microbiological Analysis of Refill Drinking Water Depot in Kadumanggu Village. Supervised by Muhammad Rifqi and Titi Rohmayanti.*

The increase in Refill Drinking Water Depots among the community is very helpful in meeting water needs, but not all water supply industries have met the requirements for drinking water quality. Refill drinking water is one type of drinking water that can be drunk directly without cooking, because it has undergone a purification process. The purpose of this research is to analyze the physical, chemical properties and microbiologists at the Village Water Refill Depot Kadumanggu, Bogor Regency, West Java Province. This research uses a descriptive method. Sampling of the Refill Drinking Water Depot used a purposive sampling method, in which 10 samples were taken with 2 replications. The samples were analyzed to determine the quality physically, chemically and microbiologically with reference to the Regulation of the Minister of Health No. 492 of 2010. The results of the physical study showed that depot water was odorless and colorless, the temperature of each depot showed a result of 25°C. Dissolved solid showed a yield of around 54-107 mg/L, and the turbidity ranged from 0,075 to 0,111 NTU. Chemically on testing pH ranged from 6,72-7,1, iron content ranged from 0,000-0,019 mg/L, manganese ranged from 0.008-0,016 mg/L, chloride ranged from 0,737-3,687 mg/L, and at a hardness of about 40-47 mg/L. However, microbiologically the samples tested showed bacterial contamination. In Coliform it ranges from 2-184/100mL sample, and in E.coli it ranged from 1-6/100mL. So it can be concluded that the Refill Drinking Water Depot in Kadumanggu Village is not suitable for consumption. Because water contaminated with bacteria is not fit for drinking.

Keywords: Water quality, Refill drinking water depot, Kadumanggu village

ABSTRAK

Rohmah Widyaningrum. B.1710073. Analisis Fisikokimia Dan Mikrobiologi Depot Air Minum Isi Ulang Di Desa Kadumanggu. Dibawah bimbingan Muhammad Rifqi dan Titi Rohmayanti.

Meningkatnya Depot Air Minum Isi Ulang (DAMIU) dikalangan masyarakat sangat membantu untuk memenuhi kebutuhan air, namun tidak semua industri penyedia air telah memenuhi persyaratan kualitas air minum. Air minum isi ulang merupakan salah satu jenis air minum yang dapat langsung diminum tanpa dimasak, karena telah mengalami proses pemurnian. Tujuan dari penelitian ini adalah untuk menganalisis sifat fisika, kimia dan mikrobiologis pada Depot Air Minum Isi Ulang Di Desa Kadumanggu, Kabupaten Bogor, Provinsi Jawa Barat. Penelitian ini menggunakan metode deskriptif. Pengambilan sampel Depot Air Minum Isi Ulang (DAMIU) menggunakan metode *purposive sampling*, dimana sampel yang diambil sebanyak 10 sampel dengan 2x ulangan. Sampel tersebut dianalisis untuk mengetahui kualitas secara fisika, kimia maupun mikrobiologi dengan mengacu pada Peraturan Menteri Kesehatan Nomor 492 Tahun 2010. Hasil penelitian secara fisika meunjukkan air depot tidak berbau dan tidak berwarna, suhu masing-masing depot menunjukkan hasil 25°C, zat padat terlarut menunjukkan hasil sekitar 54-107 mg/L, dan pada kekeruhan berkisar 0,075–0,111 NTU. Secara kimia pada pengijuan pH berkisar 6,72-7,1, kadar besi berkisar 0,000-0,019 mg/L, mangan berkisar 0,008-0,016 mg/L, klorida berkisar 0,737–3,687 mg/L, dan pada kesadahan sekitar 40-47 mg/L. Namun secara mikrobiologis sampel yang di uji menunjukkan hasil tercemarnya bakteri. Pada *Coliform* berkisar 2-184/100mL sampel, dan pada bakteri *E.coli* berkisar 1-6/100mL. Sehingga dapat disimpulkan bahwa Depot Air Minum Isi Ulang di Desa Kadumanggu tidak layak untuk dikonsumsi. Karena air yang tercemar bakteri tidak layak untuk diminum.

Kata kunci: Kualitas air, Depot air minum isi ulang, Desa Kadumaggu