

ABSTRAK**UJI KUALITAS AIR SUMUR
DI PEDUKUHAN SEMAK, BANJARASRI, KALIBAWANG,
KULON PROGO, YOGYAKARTA**

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Air bersih merupakan salah satu kebutuhan pokok manusia, karena alasan tertentu tidak setiap manusia bisa memperolehnya. Menurut Data Informasi Kesehatan Indonesia, di Yogyakarta pada tahun 2017 sumber air layak minum ada pada posisi 77,19 %. Untuk itu, peneliti tertarik untuk menguji kualitas air yang ada di Pedukuhan Semak, Banjarasri, Kalibawang, Kulon Progo, Yogyakarta, karena air sumur yang dikonsumsi sering menyebabkan sakit perut bagi sebagian warga.

Penelitian ini bertujuan untuk mengetahui: kualitas air tanah di Pedukuhan Semak berdasarkan parameter Fisika, Kimia, dan Biologi, serta mengetahui perbedaan kualitas air sumur berdasarkan jarak dengan sumber pencemar. Sampel air sumur diuji kualitasnya di lapangan dan laboratorium BLK Yogyakarta. Standar baku mutu yang digunakan adalah Peraturan Menteri Kesehatan RI nomor 23 tahun 2017. Penelitian ini menggunakan teknik *Purposive Sampling*. Tiga sumur yang dipilih mewakili tiga kriteria yang telah ditentukan berdasarkan jarak sumur dengan *septic tank*. Sumur A < 15 m, Sumur B berjarak antara 15 - 25 m, dan Sumur C > 25 m.

Hasil penelitian menunjukkan bahwa ketiga sumur di Pedukuhan Semak secara fisika dan kimia memiliki kualitas air yang baik sesuai dengan Peraturan Menteri Kesehatan RI nomor 23 tahun 2017. Secara biologi, kandungan bakteri *Coliform*; Sumur A (berjarak 9 m dari *septic tank*) terdapat > 1.600 MPN/100 ml, Sumur B (berjarak 18 m) terdapat 1,8 MPN/100 ml dan Sumur C (berjarak 35 m dengan *saptic tank*) terdapat > 1.600 MPN/100 ml. Kandungan bakteri *E. Coli* pada sumur A > 1.600 MPN/100 ml, sumur B 1,8 MPN/100 ml dan Sumur C 140 MPN/100ml.

Kata kunci :Kualitas air sumur, Pedukuhan Semak, Bakteri *Coliform*, bakteri *E. Coli*

ABSTRACT**GROUND WATER QUALITY TESTING
IN PEDUKUHAN SEMAK, BANJARASRI, KALIBAWANG,
KULON PROGO, YOGYAKARTA**

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Clean water is one of the people's basic needs. However, for a particular reason, not everyone has an access to the clean water. According to Indonesian Health Information Center, in Yogyakarta in 2017, the people who can access the clean water are at 77.19% of the total population. Therefore, the researcher is interested in testing the water quality available in Pedukuhan Semak (Semak Village), Banjarsari, Kalibawang, Kulon Progo, Yogyakarta because the water the people consume from the wells cause them diarrhea.

The researcher aims to find: the land water quality in Pedukuhan based on the Physics, Chemical, and Biology parameters as well as to figure out the differences between the distance and the source of pollution. The sample quality testing is conducted in BLK's laboratory and field in Yogyakarta. The quality standard implemented in this research is Health Minister Regulation of Indonesia number 23, 2017. The research applies Sampling Purposive technique. Three wells are chosen to represent three criteria based on the distance between the wells and the septic tanks; Well A < 15 m, Well B is 15 – 25 m and Well C > 25 m far from the septic tanks.

The research shows that the water quality in all three wells in Pedukuhan Semak measured by physics and chemical parameters is in good condition in accordance with Indonesia Health Minister Regulation number 23 Year 2017. Biologically, the number of Coliform bacteria in each well is; Well A (9 m from the septic tank) there is more than 1.600 MPN /100 ml water, well B (18 m from septic tank) contains 1,8 MPN Coliforms /100 ml water and in well C (35 m from the septic tank) contains more than 1600 MPN Coliform per 100 ml water. In short, the E. Coli bacteria in Well A > 1.600 MPN/100 ml, Well B 1.8 MPN/100 ml and Well C 140 MPN/100 ml.

Keywords : Well water quality, Pedukuhan Semak, Coliform Bactery, E. Coli Bactery.