

ABSTRAK

Husnul Khotimah, NIM 3211131008, Analisis Kualitas Air Sumur Dangkal di Desa Manunggal, Kecamatan Labuhan Deli, Kabupaten Deli Serdang. Skripsi, Jurusan Pendidikan Geografi Fakultas Ilmu Sosial Universitas Negeri Medan. 2025.

Penelitian ini bertujuan untuk menganalisis: (1) perbandingan data lapangan dengan Standar Baku Mutu Air Berdasarkan PERMENKES RI No.2 Tahun 2023 SBMKL (Standar Baku Mutu Kesehatan Lingkungan) tentang media air untuk keperluan hygiene dan sanitasi, (2) menentukan status mutu air sumur dangkal menggunakan metode Indeks Pencemaran, (3) mengidentifikasi faktor-faktor penyebab pencemaran air sumur dangkal di Desa Manunggal.

Penelitian ini dilakukan di Desa Manunggal, Kecamatan Labuhan Deli, Kabupaten Deli Serdang pada Juli–Agustus 2025. Populasi penelitian mencakup seluruh air sumur dangkal di desa tersebut, dengan sampel ditentukan melalui purposive sampling. Titik sampel dibagi menjadi dua kelompok, yaitu lokasi aktivitas masyarakat (mandi, mencuci, dan minum) serta lokasi dengan jarak 300 meter. Data diperoleh melalui wawancara, pengukuran lapangan, dan uji laboratorium. Analisis data menggunakan metode Indeks Pencemaran untuk menentukan status mutu air, serta analisis kualitatif deskriptif tematik untuk mengidentifikasi faktor-faktor pencemaran air sumur dangkal.

Hasilnya menunjukkan: (1) Kualitas air sumur dangkal di Desa Manunggal belum memenuhi standar yang ditetapkan dalam Permenkes RI No. 2 Tahun 2023. Beberapa titik sampel memiliki parameter fisik yang masih berada dalam batas normal, namun untuk parameter kimia ditemukan kadar besi (*Fe*) yang melampaui ambang batas dan parameter biologi ditemukan adanya *Total Coliform* pada beberapa titik sampel. (2) Analisis menggunakan metode Indeks Pencemaran menunjukkan bahwa kualitas air sumur dangkal di Desa Manunggal termasuk dalam kategori memenuhi baku mutu/tidak tercemar hingga tercemar ringan di beberapa titik sampel. (3) Hal ini terdapat faktor penyebab yaitu jarak sumur yang terlalu dekat dengan septictank maupun saluran limbah domestik, konstruksi sumur yang tidak memenuhi standar kesehatan menjadi faktor utama yang menurunkan kualitas air sumur dangkal di Desa Manunggal.

Kata Kunci: Air, Sumur Dangkal, Indeks Pencemaran, Desa Manunggal

ABSTRACT

Husnul Khotimah, NIM 3211131008, NIM 3211131008, Analysis of Shallow Well Water Quality in Manunggal Village, Labuhan Deli District, Deli Serdang Regency. Undergraduate Thesis, Department of Geography Education, Faculty of Social Sciences, Universitas Negeri Medan, 2025.

This study aims to analyze: (1) the comparison between field data and the Environmental Health Quality Standards based on the Indonesian Ministry of Health Regulation (PERMENKES RI) No. 2 of 2023 on Environmental Health Quality Standards (SBMKL) concerning water media for hygiene and sanitation purposes; (2) the determination of shallow well water quality status using the Pollution Index method; and (3) the identification of factors contributing to shallow well water pollution in Manunggal Village.

The research was conducted in Manunggal Village, Labuhan Deli Subdistrict, Deli Serdang Regency, during July–August 2025. The study population consisted of all shallow wells in the village, with samples determined using purposive sampling. Sampling points were divided into two groups: locations associated with community activities (bathing, washing, and drinking) and locations at a distance of 300 meters. Data were collected through interviews, field measurements, and laboratory tests. Data analysis employed the Pollution Index method to determine water quality status and thematic descriptive qualitative analysis to identify the factors influencing shallow well water pollution.

The findings revealed that: (1) the shallow well water quality in Manunggal Village has not fully met the standards stipulated in PERMENKES RI No. 2 of 2023. Several sampling points showed physical parameters within normal limits, but chemical parameters indicated iron (Fe) levels exceeding the permissible threshold, while biological parameters revealed the presence of Total Coliform in several samples. (2) The analysis using the Pollution Index method indicated that shallow well water quality in Manunggal Village ranged from compliant/non-polluted to slightly polluted in several sampling points. (3) Contributing factors include the close distance of wells to septic tanks and domestic wastewater channels, as well as well construction that does not meet health standards, which significantly reduces the quality of shallow well water in the area.

Keywords : *Water Quality, Shallow Wells, Pollution Index, Manunggal Village*