

## ABSTRACT

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### WELL WATER QUALITY VIEWING FROM RIVER POLLUTION IN VILLAGE TROPODO KRIAN DISTRICT SIDOARJO REGENCY YEAR 2021

1x + 109 pages +2 image + 14 tables + 6 attachments

Water pollution of dug wells is an environmental problem that can reduce water quality. Factors that affect the quality of dug well water are tofu industrial wastewater and RPH waste disposal in Tropodo Village. If the location of the dug well is lower than the pollutant source and has a distance of less than 11 meters, it is estimated that the pollutant source flow will seep into the well. So the aim of the researcher is to analyze the quality of dug well water in terms of river pollution.

This type of research uses descriptive qualitative with primary data collection in the form of interviews and observations. Parameters tested are physical, chemical and microbiological parameters. Data analysis uses tabular form and is described based on Government Regulation No. 82 of 2001 concerning water quality management and water pollution control.

Construction of dug wells in Bale Panjang Hamlet, Tropodo Village, which is <11 meters from river pollution, 83.33% of the well walls do not meet the requirements and all conditions of the well floor are 100% not eligible. The 6 dug wells are not equipped with SPAL which allows contamination of the dug well water. There are still 90.20% of dug well water whose physical quality does not meet the requirements, 56.67% of dug well water which has chemical quality does not meet the requirements and 50% of dug well water with microbiological quality does not meet the requirements.

concluded that the quality of dug well water is influenced by river contamination from tofu industrial waste and abattoirs and is influenced by other factors such as domestic waste and seepage of dug well SPAL. It is recommended to the relevant agencies to always conduct counseling about good well construction and SPAL and make home visits to measure the quality clean water.

**Keywords** : physical parameters, chemical and microorganism, dug well, river pollution

**Reading list** : 48 books (1992-2020)

## ABSTRAK

Khofifah Dwi Lestari

### KUALITAS AIR SUMUR GALI DITINJAU DARI CEMARAN SUNGAI DI DESA TROPODO KECAMATAN KRIAN KABUPATEN SIDOARJO TAHUN 2021

1x + 109 Halaman + 2 gambar + 16 Tabel + 6 lampiran

Pencemaran air sumur gali merupakan permasalahan lingkungan yang dapat mengurangi kualitas air. Faktor yang mempengaruhi kualitas air sumur gali yaitu limbah cair industri tahu dan pembuangan limbah RPH di Desa Tropodo. Apabila letak sumur gali lebih rendah dari sumber pencemar dan memiliki jarak kurang dari 11 meter diperkirakan aliran sumber pencemar meresap kedalam sumur. Maka tujuan peneliti menganalisis kualitas air sumur gali ditinjau dari cemaran sungai.

Jenis penelitian menggunakan deskriptif kualitatif dengan pengumpulan data primer berupa wawancara dan observasi. Parameter yang di uji yaitu parameter fisik, kimia dan mikrobiologi. Analisis data menggunakan bentuk tabel dan dideskripsikan berdasarkan Peraturan Pemeritah No 82 Tahun 2001 tentang pengelolaan kualitas air dan pengendalian pencemaran air.

Konstruksi sumur gali di Dusun Bale Panjang Desa Tropodo yang berjarak  $< 11$  meter dari cemaran sungai terdapat 83,33% berdinding sumur tidak memenuhi syarat dan semua kondisi lantai sumurnya 100% tidak memenuhi syarat. Ke 6 sumur gali tersebut tidak dilengkapi SPAL yang memungkinkan terjadi pencemaran terhadap air sumur gali. Masih terdapat 90,20% air sumur gali yg berkualitas fisik tidak memenuhi syarat, 56,67% air sumur gali yg berkualitas kimia tidak memenuhi syarat dan 50% air sumur gali yang berkualitas mikrobiologi tidak memenuhi syarat.

Disimpulkan bahwa kualitas air sumur gali dipengaruhi oleh cemaran sungai dari limbah industri tahu dan limbah RPH serta dipengaruhi faktor lain seperti limbah domestik dan rembesan SPAL sumur gali. Disarankan kepada instansi terkait untuk selalu melakukan penyuluhan mengenai kontruksi sumur dan SPAL yang baik dan melakukan kunjungan rumah guna mengukur kualitas air bersih.

*Kata kunci : Parameter Fisik, Kimia dan Mikrobiologi, Sumur Gali, Cemaran Sungai*

*Daftar Bacaan: 48 Buku (1992 – 2020)*