

Desweri Marosa, 2011. Analysis of Bacterial Pathogens in Citizen Well Water Case Studies Slums Settlement of District Semampir Surabaya. This thesis is under the guidance of Dr. Ir. Tini Surtiningsih, DEA and Drs. Trisnadi W.C.P., M.Si., Department of Biology, Fakultas of Science and Technology, Airlangga University, Surabaya.

ABSTRACT

This research aims to determine what pathogenic bacteria that contained in citizens well waters and to know the quality and feasibility of water wells in slums settlement of Semampir district Surabaya as standard water for daily needs in terms of the presence of pathogenic bacteria. Samples were taken from water well in every village in the Semampir disetrick, they are Wonokusumo, Pegirian, Ampel, Sidotopo, and Ujung. In each village was taken three different well locations then cultured it on EMB media (*Eosin Methylen Blue*), SSA (*Salmonella Shigella Agar*), and TCBS (*Thiosulfate Citrate Salt Sucrose*). After the bacterial colony was taken from each of the media then carried Gram stain. Further proceed with physiological testing using multiple media like TSIA (*Triple Sugar Iron Agar*) media, Indole test using *Tryptone broth*, MR-VP, *Urea Broth*, and *semi solid agar*. Based on the results of physiological tests that found pathogenic bacteria *Escherichia coli* at each sample locations, genus *Salmonella* were found in the Wonokusumo and Ujung village, genus *Vibrio* were found in the Pegirian and Ujung village. Based on the results of the research and compared with the data in Kepmenkes RI No. 907/MENKES/SK/VII/2002 can be expressed well water quality research areas when viewed from the content of pathogenic bacteria do not meet the standard and not feasible to use for direct consumption or for the fulfillment of daily needs

Key Word: water pathogen bacteria, wells water quality, *Escherichia coli*, *Salmonella*, *Vibrio*