Abstract

Groundwater taken the people for daily need, groundwater quality sometime is below than the standard of drink water. It needs to develop groundwater filtration technology with an easy and simple technology in that operation. This research uses pottery filter which was qualified as a filter for recovering water which was polluted by colour, turbidity, coliform bacteria, metal Iron and Mangan (Fe and Mn).

In this research, pottery was made from ceramic materials, the mixing matter is charcoal with the ratio 10:0.5 and 10:1,5 as research variable. The other variable is head for the filter which are 4 m and 8 m with gravitation system.

This research and the laboratory analyse can be concluded that the highest removal is happen in the charcoal pottery filter with ratio 5% and head 8m which made the removal of colour 92,93%, turbidity removal 97,11%, organic matter removal 90,54%, Iron (Fe) removal 99,80%, mangan (Mn) removal 97,19%, coliform bacteria removal 100%. The result of the filtration is below than the KEPMENKES RI No. 907 Year 2002 about the standard of drink water.

Keywords: groundwater, pottery filter, groundwater treatment, colour, turbidity, coliform bacteria, metal Iron and Mangan (Fe and Mn).