



UNIVERSITY OF NAIROBI

GROUND WATER QUALITY INVESTIGATION IN KARENGATA

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## ABSTRACT

This report has been prepared after a successful investigation of ground water quality from various boreholes within Karengata. The study's primary objective was to perform an analysis on ground water quality within Karengata.

The study involved collection of test samples from the various boreholes. Information on the boreholes such as locality, ownership, depths and yield was obtained from the Ministry of Water and Irrigation databases. Sampling of water from the various boreholes was done and later the samples were taken to the laboratory for examination where key physical and chemical parameters of the water were tested.

The analysis of the results was done based on the acceptable limits specified by the Kenya Standards for Drinking water (KS 459-1: 2007) and World Health Organization Standards. Out of all the tests carried out on the samples, most of the results obtained were within the recommended values in the KS 459-1: 2007 and WHO Standards. pH levels stood out with 6 sampled points recording a pH of above 7 thus it can be inferred that water from these points was alkaline in nature.

Management of the indicators of pollution in groundwater is of great importance especially if the water is used for drinking. There is also a need for continued and regulated monitoring of water quality from the various boreholes.