



Assessment of Ground Water Quality in Umaria District, Vindhya Pradesh, India

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Accepted on 11th March 2014

ABSTRACT

The Physico-chemical analysis of ground water samples from eight hand pumps in 3 tehsil, 2 crop field and 3 village place of the Umaria district under Vindhya Pradesh, M.P. India results indicated that during the seasons (rainy, winter and summer). The samples were analyzed for temperature, pH, turbidity, DO, BOD, COD, nitrate, nitrite, chloride, sulphate, phosphate and heavy metals. The ground water samples from all the location in the Umaria District are found to be within the prescribed limits as physico-chemical characteristics are concerned except sulphates concentration. The content of Cd and Cu in the analyzed water samples were below the permissible limit set by BIS (1992) as 1.5 and 0.01 mg L⁻¹. The mean values of each parameters together with its standard deviation (SD) and coefficient variation (CV) were calculated. The present study deals with the various relationship derived statistically by calculation 'r' and 't' among the physico-chemical parameters.

Keywords: Umaria District, diffuse pollution, ground water, heavy metals, t - test, Vindhya Pradesh.
