

GEOCHEMICAL NATURE OF RIVER AMAJAC, HIDALGO, MEXICO: A STUDY ON ENVIRONMENTAL FACTORS FROM WATER SAMPLES

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ABSTRACT

The study of environmental status of River Amajac in the State of Hidalgo, Mexico was made on the geochemical nature of water samples collected from 38 locations. They were collected from the origin to the end of the river where it meets River Moctezuma near Tamachunchale. Physico-chemical parameters in the River Amajac show distinct variations with reference to the area of collection and it differs from the origin to the end of the river. Depletion in dissolved oxygen is found in certain places due to low flow conditions in the rivers. The dissolved trace metals (Fe, Mn, Cr, Cu, Ni, Co, Pb, Zn, Cd) in the river water also reveal that the concentrations are dependent on the drainage pattern of the river and its small tributaries which enter the main river at some places. In addition, the environmental status of the river reveals no major enrichment in the concentration of trace metals except at a few places where the enrichment is caused due to local inputs rather than industrial sources.