

A PRELIMINARY STUDY OF SOURCES OF ARSENIC CONTAMINATION IN SOUTHWEST CAMEROON

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ABSTRACT

An important objective of this study is to understand the geological, hydrogeological and geochemical factors that contribute to the mobilization of arsenic in groundwater in the Ekondo Titi study area. Understanding the source, mechanism of mobilization, and transport of arsenic is important for evaluating the current threat to public health and for planning future water management. The survey conducted in Ekondo Titi reveals the occurrence of arsenic with concentration ranging from 0.1 mg/l in shallow aquifers to 2 mg/l in deeper aquifers. The mode of occurrence is geogenic and the arsenic is released into groundwater from iron oxyhydroxide by reductive dissolution, linked to oxidation of organic matter in the aquifer sediments. Computation of the risk factor shows that about 4000 people are probably at risk of arsenic poisoning.

Reference: *Mbotake, I.T. 2006. A preliminary study of sources of arsenic contamination in southwest Cameroon. Journal of Environmental Hydrology, Vol. 14, Paper 25.*

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