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## Selection of the Best Waste water Treatment System with Mercury in Gold Mining, Applying Analytic Hierarchy Process.

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**Abstract**: An application of the Analytic Hierarchy Process is presented below to select the best system of wastewater treatment with mercury (Hg), product of artisanal gold mining and small - scale (AGMSS) developed in Colombia. The Analytic Hierarchy Process has been used in several studies for the selection of alternative wastewater treatment and is a methodology that allows presenting the best alternative from the technical, environmental, economic and social terms, representing an important issue before designing and implementing any wastewater treatment plant in each particular sector. The analysis was applied in a case study in the municipality of Segovia, Antioquia's department, allowing found that under the conditions of the mining activity in this municipality as well as the selection criteria taken into account, the most suitable tertiary treatment is the bioadsorption.

**Keywords:** hierarchical analysis, artisanal, gold mining, small - scale, mercury treatment.

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