## Analysis of Iron Heavy Metal Content (Fe) in Water, Sediment and Fish in the Waters of Saguling Reservoir

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## Abstract

This research was conducted with the aim of obtaining information on the concentration of iron heavy metals (Fe) in water, sediment and fish in the waters of Saguling Reservoir. The method used in this study is descriptive analysis, which is to compare the results of the study with the standard quality or threshold of iron heavy metal concentration (Fe) that applies. The samples used in this study were water, sediment and fish taken purposively sampling at three capture stations. The results of research on the concentration of iron heavy metals (Fe) in the water in the waters of Saguling Reservoir suggest that at station I 0.5962 mg/L; station II 0.3661 mg/L; and station III 3,913 mg/L to an average of three stations 1.6253 mg/L, in sediment at station I 11,356,4745 mg/kg; station II 7,955,7799 mg/kg and station III 11,020,8634 to an average of 10,111,0393 mg/kg and in fish at station I of 9.6269 9,6269 mg/kg; station II amounted to 16.9956 mg/kg and 7.6233 mg/kg to an average of 11.4152667 mg/kg. The highest concentration of iron metal (Fe) is found in sediment while the lowest is found in water. The state of the environment or physical and chemical conditions of water at the time of the study with the parameters measured namely the water temperature is in the range of 29-31 °C, the pH of water is in the range of 6-7, Water brightness is in the range of 0.93meters while dissolved oxygen is in the range of 4 - 5 mg / L. Data of iron metal concentration (Fe) in water based on laboratory test results compared to the standard quality of iron metal (Fe) in water shows the entire station is above the quality standard, while the concentration of iron metal (Fe) in the sediment of the three stations shows the concentration is above the quality standard, while in fish shows the same condition that is above the quality standard. The results showed that Saguling Reservoir is in a condition polluted with iron metal (Fe). While the water condition refers to PP No. 82 year 2001 is reviewed from the metal concentration of Fe water Saguling Reservoir is in category III.

**Keywords:** Heavy Metal, Iron (Fe), Water, Sediment, Fish, Saguling Reservoir