

Water Quality at Lohan River, Bongkud River, Mansahaban River and Mongkodou River, Ranau Sabah

ABSTRACT

The purpose of this study is to determine a suitable location as a "control river" for comparison regarding monitoring water quality research at Ranau area due to Ex-Mamut copper mining activities (MCM). Lohan river is presenting the river influenced by MCM and three other rivers were selected as potentials control river as identified unpolluted river. The in-situ parameters (temperature, conductivity, DO, pH, turbidity) were measured by using ProDSS YSI multimeter. Next, the water samples were collected by using polyethylene bottles in depth between 15 to 20 cm under the surface water and preserve it with NH_3OH until $\text{pH} < 2$ before analysed with ICPOES for heavy metals (Cu, Cr, Cd, Fe, Pb and Zn). As a result, the ANOVA one-way and Tukey Kramer analysis shown that there were significant different between in-situ parameters at the rivers. For the conclusion, in this study Mongkodou river has selected as a recommended control's river as an unpolluted river.