Pengaruh pemasangan high pressure grinding roll (HPGR) terhadap waktu grinding, distribusi ukuran partikel dan performa flotasi tembaga = Efect of high pressure grinding roll (HPGR) installation in grinding time, particle size distribution and flotation performance copper

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Abstrak

The most important parameter in mineral processing are recovery and grade from valuable mineral. And to obtain good recovery and grade it is needed good mineral handling from comminution to flotation process. To increase these recovery and grade, High Pressure Grinding Roll (HPGR) installation is needed. After experiment, this HPGR treated ore show shorter griding time about four minute from Non-HPGR treated ore. From particle size distribution data, HGPR treated ore show finer grind size at lower than 65 Mesh from Non-HPGR treated ore. This finer distribution becomes main effect in flotation performance. Because of this condition, recovery of HPGR treated ore higher and also show better grade of copper. From mineralogy testing, it is also known from tails analysis that HPGR treated ore still has more liberated valuable mineral that has not recovered in flotation process. This matter can be caused by the non-optimum flotation process for HPGR treated ore.