

**“ SUSCEPTIBILITY ZONING OF WORK ACCIDENT BASED ON SLOPE STABILITY ANALYSIS AT VILLAGERS LIMESTONE MINING AREA, KARANGTENGAH VILLAGE, WONOSARI DISTRICT, GUNUNGKIDUL REGENCY, SPECIAL REGION OF YOGYAKARTA ”**

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**ABSTRACT**

*The research activities carried out at the villagers limestone mining area in the on Karangtengah Village, Wonosari District, Gunungkidul Regency, Special Region Of Yogyakarta. In the research location, found many of discontinuities on the rock block that could potentially lead the slopes to be unstable, which can threaten the safety of the miners on this location. The purpose of this research was to determine the rock mass classification and potential type of rock mass movement at the research location, so that the zones of potential workplace accidents on that location can be determined.*

*The method used is field survey method using scanline sampling techniques and field observations. Data analysis technique used is stereographic analysis using dips software to determine the type of rock mass movement that may occur, and the RMR (Rock Mass Rating) method to classify the rock mass at the research location. The parameters used for the stereographic analysis is the slope direction, inclination and direction of discontinuities, as well as friction angle. The parameters used for the RMR method is strength of intact rock, discontinuities condition, discontinuities spacing, rock quality designation, and water conditions on the discontinuities. Evaluation is done by scoring method between RMR classification results with high excavation wall, and the results of the stereographic analysis.*

*By the results of research, from a total of 45 scanline made at the research location, showed that the rock mass at 44 scanline are classified in the class II (good) with a RMR total score 61-80, and 1 scanline that are on classification III (enough) with a RMR total score 41-60. For the type of failure that may occur is toppling failure on 8 scanline, wedge failure on 18 scanline, and a combination of and wedge failure on 7 scanline. For the susceptibility zone of work accident based on slope stability analysis on the research location, 33 scanline is classified as a susceptible zone, and 12 scanline classified as a safe zone.*

*Keywords: limestone, rock mass movement, susceptibility zone of work accident.*