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THE VALUE OF SLOPE MASS RATING (SMR) ADJUSTMENT FACTOR FOR CPSB STONE QUARRY, SABAH, MALAYSIA: A PRELIMINARY STUDY

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ABSTRACT

Published SMR geomechanic classification system was applied to rock cut slope of Crocker Formation in CPSB Stone Quarry, Tamparuli in order to assess the value as indicators of rock mass condition. The SMR is obtained from RMR by adding a factorial

adjustment factor depending on the relative orientation of discontinuities and slope (parallelism between discontinuities and slope, discontinuities dip angle in failure modes, relationship between slope and discontinuities dips) and another adjustment factor

depending on the method of excavation. Stereonet analysis of the pole plot and Markland test has been used in this study. Pole plot has been performed in determining NE bedding, SSE, WNW and WSW joint sets and Markland test for recognizing potential planar failure and toppling failure. The rating adjustment factor of SMR for the Crocker Formation in the study area are -50.50, -43.70, -28.30 and -50.25 in station BQ1, BQ2, BQ3 and BQ4, respectively. This result shows that the slope in station BQ1 and BQ4 has the lowest SMR rating value which then became a poorest quality of rock mass in the study area.