Research in order to calculate the volume of andesite resources was carried out in the village of Hargomulyo, Kokap District, Kulon Progo Regency, Special Region of Yogyakarta. The area that has the potential for mining the excavation is adjacent to the construction area of the new international airport in Yogyakarta. Therefore, it is expected to be able to meet the needs of andesite extract as soil fill. Based on the results of the exploration that has been carried out, the andesite potential in the research area has the prospect of doing business. The calculation of the volume of andesite resources in the study area uses two methods, namely, the Cross Section method with a stepwise change guide (rule of gradual change) and the Contour method. Based on the Cross Section method, from elevation 149 to elevation 9, the volume of resources is 24,700,804.03 m$^3$. The calculation of andesite resources using the Contour method produces a volume of 26,391,799.45 m$^3$. Based on SNI 13-4726-1998 concerning Classification of Resources and Reserves, andesite resources in the research area are included in Indicated Mineral Resources.