

RINGKASAN

Kabupaten Kulon Progo memiliki sumber daya andesit yang besar. Keterdapatannya di Kulon Progo tersebar di beberapa wilayah, salah satunya di Dusun Grindang, Desa Hargomulyo, Kecamatan Kokap, Yogyakarta. Potensi andesit yang besar khususnya di lokasi penelitian belum dimanfaatkan secara maksimal oleh pemerintah daerah. Hal inilah yang menjadi latar belakang dilakukannya penelitian tentang kajian potensi andesit di Dusun Grindang.

Kondisi morfologi di lokasi penelitian secara umum berupa pegunungan andesit curam dan vegetasinya didominasi oleh pohon sangon, pohon kelapa, dan pohon pinus. Lokasi penelitian secara administratif terletak di Dusun Grindang, Desa Hargomulyo, Kecamatan Kokap, Kabupaten Kulon Progo, DIY dan secara astronomis terletak pada koordinat UTM 395445 mE - 395998 mE and 9132811 mN - 9131969 mN. Luas area penelitian adalah 48,88 hektar.

Kegiatan penelitian dimulai dengan melakukan observasi, yaitu mencari singkapan dan menentukan titik pengambilan sampel andesit serta pemetaan akses jalan dan di *plotting* peta topografi dengan menggunakan alat *Global Positioning System* (GPS). Hasil observasi digunakan untuk menentukan sebaran andesit serta batas area penelitian. Kemudian dilakukan pengambilan sampel untuk selanjutnya diuji di laboratorium. Pengujian dilakukan untuk mendapatkan parameter-parameter guna menentukan kategori andesit untuk bahan bangunan. Berdasarkan hasil pengujian, didapatkan nilai bobot isi natural 2,59 gram/cm³, kadar air jenuh 1,48%, kuat tekan uniaksial 90,53 Mpa, dan nilai abrasi 40% sehingga dikategorikan untuk pondasi bangunan ringan, tonggak dan batu tepi jalan, penutup lantai/trotoar, serta batu hias atau batu tempel. Setelah itu, dilakukan perhitungan sumber daya andesit dengan metode *contour* dengan hasil volume sebesar 14.100.251,213 m³ serta tonase sebesar 36.519.650,642 ton dan metode *cross section* dengan hasil volume sebesar 14.014.601,015 m³ serta tonase sebesar 36.297.816,629 ton. Selanjutnya, dilakukan perhitungan nilai *Location Quotient* dari data Produk Domestik Regional Bruto didapatkan nilai LQ sebesar 2,44.

Sumber daya andesit di lokasi penelitian diklasifikasikan sebagai Sumber Daya Tertunjuk dan berintrinsik ekonomis (ekonomis ke berpotensi ekonomis) dengan tingkat kelayakan studi geologi. Nilai LQ >1 artinya produksi andesit di lokasi penelitian telah mampu memenuhi kebutuhan konsumsi daerah dan berpotensi untuk diekspor. Namun, selama ini Kabupaten Kulon Progo masih mengandalkan sektor pertanian dan jasa sebagai komoditas utama. Padahal, pasar andesit akan terus eksis selama pembangunan berjalan. Selain itu, faktor kuantitas yang, kualitas, kesampaian daerah, serta sarana transportasi dan fasilitas yang baik menunjukkan bahwa andesit khususnya di lokasi penelitian berpotensi untuk dikembangkan (prospek).

ABSTRACT

Kulon Progo has a large andesite mineral resources. It spreads in some areas. One of it is in Grindang Village, Hargomulyo, Kokap Subdistrict, Kulon Progo, Yogyakarta. In research location, potential resources of andesite is not optimally used yet by local government. This case is why the study of andesite's potential mineral resources done.

Morfology condition in research location is generally dominated by andesite's mountains and its vegetation is dominated by sangon, coconut, and pine trees. The research location is located in Grindang Village, Hargomulyo, Kokap Subdistrict, Kulon Progo, Yogyakarta and astronomically it is located in 395445 mE - 395998 mE and 9132811 mN - 9131969 mN which its area is 48,88 hectares.

The research is started by doing an observation which its activities are searching for an outcrop, locate the sampling point, and also mapping the main road to access the location. Those activities are done by plotting in topographic map with GPS (Global Positioning System). These observation's results are used to determine the distribution of andesite and the boundaries of the research area. After that, samples are obtained. Samples are going to be tested in laboratory to get the parameters needed for classification as building materials. Based on the tests in laboratory, the results are gotten such as, natural density 2,59 grams/cm³, absorption 1,48 %, unconfined compressive strength 90.53 MPa, and abrasivity's value 40%, so andesite in research location is used for lite building foundation, kerbstone, floor cover, and ornaments. Next, estimating the andesite mineral resources with 2 methods. The first one is contour method which its result are 14.100.251,213 m³ (volumes) and 36.519.650,642 tons (tonnage). The second one is cross section method which its result are 14.014.601,015 m³ (volumes) and 36.297.816,629 ton (tonnage). The last one is analyzing Gross Domestic Regional Bruto with Location Quotient formula and the result is 2,44.

Andesite mineral resources in research location is classified as inferred mineral resources and has economic to potential economic based on a geologic study. The LQ value is above 1 which means the production of andesite in research location can fulfilled the need of Kulon Progo's mineral consumption and it has potential to be exported. Yet, Kulon Progo still depends on agriculture sector and service sector as a primary contribution to the region economic's income. In the other side, andesite market will still exist as long as the regional development is going. Many factors such as quantity, quality, strategic area, good facilities and transportation access show that andesite, especially in research location, is potential to be developed (prospect).