

## **SARI**

Erupsi Merapi 2010 menghasilkan produk-produk letusan primer antara lain aliran, jatuhan, dan seruakan piroklastika, serta produk sekunder berupa lahar. Keempat jenis produk tersebut masih terpreservasi dengan baik saat penelitian dilakukan sehingga dapat dipelajari karakteristik fisik, meliputi kenampakan lapangan, kandungan ukuran butir, dan kenampakan sayatan tipis, serta karakteristik geokimia. Lokasi pengambilan sampel terdiri dari tiga lokasi, antara lain Desa Bakalan di Kabupaten Sleman (untuk sampel aliran, jatuhan, dan seruakan piroklastika), Desa Jumoyo di Kabupaten Magelang (untuk sampel lahar), dan daerah Kaliurang, Kabupaten Sleman (untuk sampel jatuhan piroklastika).

Metode penelitian yang digunakan adalah metode granulometri untuk mengetahui kandungan ukuran butir, metode pengamatan sayatan tipis untuk mengetahui sifat fisik dan kandungan endapan, dan metode geokimia XRF untuk mengetahui kandungan kimia dari keempat jenis endapan.

Berdasarkan pengutaraan data dan pembahasan, dapat dikelompokkan ciri-ciri fisik dan geokimia dari endapan produk Merapi 2010 secara genetis dan dapat diketahui perbedaan antara produk primer dan sekunder Merapi 2010 yang tampak jelas pada kenampakan lapangan dan kenampakan sayatan tipis, antara lain lokasi pengendapan, bentuk butir penyusun, struktur pengendapan, hubungan antar butir, komposisi dan perbandingan kandungan litik-mineral, serta kondisi litik penyusun (kandungan litik non 2010). Sedangkan pada kandungan kimia dicirikan oleh perbedaan kandungan  $\text{SiO}_2$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{TiO}_2$ ,  $\text{P}_2\text{O}_5$ , dan  $\text{MgO}$ .

**Kata kunci:** Karakteristik, Merapi 2010, Aliran Piroklastika, Jatuhan Piroklastika, Seruakan Piroklastika, Lahar

## **ABSTRACT**

*Merapi's eruption in 2010 produced primary eruption product, such as pyroclastic flow, fall, and surge, and also secondary eruption product, such as lahar. All kind of those products still well-preserved when this research started, so we can study about physical characterization (including field appearance, grain size distribution, thin section appearance) and geochemical characterization. Picking sample location consist of three location, such as Bakalan Village in Sleman District (for pyroclastic flow, fall, and surge samples), Jumoyo Village in Magelang District (for lahar samples), and Kaliurang kilometres 5-7 in Sleman District (for pyroclastic fall samples).*

*The methods used in this research include granulometry method to determine grain size composition, thin section method to determine composition and physical characterization of each samples, and XRF geochemical method to determine chemical composition from those deposits.*

*Based on data explanation and discussion, we can agglomerate the characterization of Merapi 2010 deposit genetically and distinguish the differences between primary deposits and secondary deposits. The differences can be seen very clearly in field and thin section appearance, such as depositional location, grain shape, depositional structure, grain contact, composition and mineral-lithic ratio, also lithic condition (presence of non 2010 lithic). Meanwhile, geochemical composition shows that there is a differences between  $\text{SiO}_2$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{TiO}_2$ ,  $\text{P}_2\text{O}_5$ , and  $\text{MgO}$  content.*

*Keyword: Characterization, Merapi 2010, Pyroclastic Flow, Pyroclastic Fall, Pyroclastic Surge, Lahar*