ZONA ALTERASI DAERAH DONGKO DAN SEKITARNYA, KECAMATAN DONGKO, KABUPATEN TRENGGALEK, PROVINSI JAWA TIMUR

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ABSTRACT

The location of this research is in the administrative area Dongko Village, District Dongko, Trenggalek, East Java Province. Geographically, the study area is located at X = 562000mE- 569000mE and Y = 9088000mN- 9092000mN. The area of research with an area of 7 km x 4 km at a scale of 1: 20,000.

The study area consists of two formations of origin and 4 landforms. Notching structural origin valley landform consisting of structural units (S1) and a structural unit of the hilly landform (S2). Notching unit consists of fluvial origin landform river body (F1), and overflow flood plains landforms (F2).

Stratigraphy in the study area based on the unity of the dominant lithology characterize the study area can be grouped into four (4) units unofficial. From old to young is breccias Mandalika Unit (Oligocene Early Miocene Finally, Samodra, 1992), Unit andesite lava Mandalika (Oligocene Early Miocene Finally, Samodra, 1992), Unit Jaten volcanic sandstones (Middle Miocene, Samodra, 1992) and unit alluvial deposits (Holocene).

Geological structures developed in the study area based on the interpretation of the initial geological structure zone of southern mountains coupled with field data are obtained, found three faults in the study area, 1 cesarean horizontal left-direction Northeast - Southwestern and 2 faults horizontal drawn based on topography, map SRTM and the pattern of alteration zones (according Samodra, 1992) with the direction of Northeast - West power left horizontal fault, Northwest - Southeast horizontal fault right.

In the area of research got two alteration zones namely the argillic alteration zone and propylitic alteration zones. Argillic alteration zones found in lithology tuff, pyroclastic breccias, volcanic breccias and lava. Propylitic alteration zones found in volcanic breccia lithology, lava, conglomerates, sandstones and volcanic. The process of formation alteration in the research area stems from the cessation of volcanic sandstone deposition and then the emergence of young intrusion (dacite) according Samodra 1992 as a heat source located outside the southern part of the study area. This hydrothermal fluid moves continuously north leads to the study area passes through a weak zone in the form of fault that alteration zones follow the movement of the fault.