ABSTRAK

Secara administratif, daerah penelitian terletak di Daerah Giritontro dan sekitarnya, Kecamatan Giritontro, Kabupaten Wonogiri, Provinsi Jawa Tengah. Secara astronomis, daerah penelitan termasuk dalam zona 49 S UTM dan secara geografis berada pada koordinat UTM 486507 mE - 491744 mE dan 9108585 mN – 9103728 mN, dengan luas 25 km^2. Penelitian dilakukan dengan metode pemetaan geologi permukaan mencakup pengumpulan data primer langsung dari lapangan.

Berdasarkan aspek geomorfologi, daerah penelitian termasuk ke dalam bentuk asal karst, dengan jenis holokarst beriklim basah serta bentuk asal fluvial dengan bentuk lahan antara lain lereng karst denudasional (K2), *conicle karst zone* (K5), *karst alluvium plains* (K7), dolina/uvala (K9), serta *polje* (K10) dan bekas dasar danau (F10). Pola pengaliran yang berkembang adalah multi-basinal (MBS). Stratigrafi daerah penelitian terdiri atas dua formasi yaitu Formasi Wonosari, yang dibagi ke dalam 2 satuan, yakni Satuan *autochtonous* Wonosari dan Satuan *allochthonous* Wonosari dengan 9 litofasies berumur Miosen Awal – Miosen Akhir dengan lingkungan pengendapan laguna belakang terumbu, terumbu inti, hingga cekungan depan terumbu, serta Formasi Baturetno yang disusun oleh satuan aluvium Baturetno berumur Pliosen Akhir dengan lingkungan pengendapan danau purba. Struktur geologi yang dijumpai di daerah penelitian adalah bidang perlapisan dan kelurusan (*lineage*) berdasarkan citra yang diduga kekar serta sesar yang mengontrol pembentukan *conicle hills* serta lembah di daerah penelitian.

Berdasarkan analisis mikrofasies, didapatkan tipe mikrofasies standar diantaranya SMF 3, SMF 5, SMF 6, SMF 8, SMF 11 dan SMF 18 sehingga dapat ditarik zonasi fasies yaitu FZ 2, hingga FZ 8. Rekonstruksi terhadap kompleks terumbu Wonosari didapatkan bahwa terjadi sedimentasi pada fase transgresi yang menyebabkan pertumbuhan terumbu *backstepping* seiring dengan penambahan akomodasi cekungan. Fase diagenesis mencakup eogenesis, mesogenesis, dan telogenesis.

Kata kunci: Mikrofasies, batuan karbonat, diagenesis, Formasi Wonosari, karst

ABSTRACT

Administratively, the research area is located in Giritontro and surrounding areas, Giritontro District, Wonogiri Regency, Central Java Province. Astronomically, the research area is in the 49 S UTM zone and geographically, the UTM coordinates are 486507 mE - 491744 mE and 9108585 mN - 9103728 mN, with an area of 25 km^2. Research carried out by surface geological mapping methods that include collecting primary data directly from the field.

Based on geomorphological aspects, the research area is a karst origin, with wet holokarst types and landforms and fluviatil origin including denudational karst slopes (K2), conicle karst zones (K5), karst alluvium plains (K7), doline/uvala (K9), polje (K10), and former bottom of lake (F10). The drainage pattern that develops is multi-basinal (MBS).

The stratigraphy of the research area consists of two formations, ie. Early Miocene to Late Miocene, Wonosari Formation which is divided into 2 unit, autochthonous Wonosari and allochthonous Wonosari with 9 lithofacies, formed in backreef lagoon, core reef, up to fore reef basin depositional environments, and Late Pliocene Baturetno Formation, composed by Baturetno alluvium unit, formed in ancient lake depositional environment. The geological structure found in the research area are bedding planes and lineage based on images that are fractures and fault suspected which control the formation of conicle hills and valleys in the research area.

Based on microfacies analysis, the standard microfacies types were obtained including SMF 3, SMF 5, SMF 6, SMF 8, SMF 11 and SMF 18, so facies zonation can be determined ie. FZ 2 all the way to FZ 8. Reconstruction of the Wonosari reef complex suggested that sedimentation developed in transgression phases, causing growth of backstepping reefs along with addition of basin accommodation. The diagenetic phases including eogenesis, mesogenesis, and telogenesis.

Keywords: Mikrofasies, carbonate rocks, diagenesis, Wonosari Formation, karst