

## SARI

# GEOLOGI DAN PALEOGEOGRAFI DAERAH KALINUSU DAN SEKITARNYA KECAMATAN BUMIAYU, KABUPATEN BREBES, JAWA TENGAH

Oleh:

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Stratigrafi regional daerah Kalinusu, Kecamatan Bumiayu, Kabupaten Brebes, Jawa Tengah memiliki lingkungan pengendapan yang relatif berbeda terdiri dari Formasi Kalibiuk, Formasi Kaliglagah yang terendapkan pada lingkungan *marine*, Formasi Mengger dan Formasi Gintung yang terendapkan pada lingkungan *non marine* (Kastowo dan Suwarna, 1996). Hal tersebut menjadi dasar untuk mengetahui paleogeografi daerah Kalinusu melalui analisis korelasi fasies. Penelitian bertujuan mengetahui kondisi geologi dan mengidentifikasi korelasi asosiasi fasies dengan rekonstruksi paleogeografi pada daerah penelitian dengan menggunakan metode pemetaan geologi lapangan dengan analisis data berupa data geomorfologi, struktur geologi, petrografi, litostratigrafi, dan biostratigrafi. Berdasarkan analisis geomorfologi, daerah penelitian terdiri dari Satuan Lembah Antiklin Kalinusu, Satuan Lembah Sinklin Kalinusu, dan Satuan Dataran Denunadasional Struktur Sesar Kalinusu. Secara stratigrafi daerah penelitian dari tua ke muda tersusun atas satuan batulempung-batupasir karbonat, satuan batupasir silang siur berbutir kasar, satuan batupasir berbutir sedang dan satuan batupasir berbutir kasar karbonat. Pada daerah penelitian terdapat struktur geologi berupa Sinklin Kalinusu, Antiklin Kalinusu Dan Sesar Mendatar Kiri Kalinusu. Berdasarkan asosiasi fasies dengan pendekatan model fasies Nichols, 1988, rekonstruksi paleogeografi daerah penelitian terbagi menjadi 5 tahapan *event* perubahan asosiasi fasies yaitu pada N19 – N20 terendapkan fasies *offshore* dengan pengendapan *prograding*, Pada N20 – N21 mengalami *prograding* terendapkan fasies *beach* kemudian terjadi *retrograding* dan terendapkan fasies *shoreface*, Pada N21 – N22 terjadi pengendapan *prograding* sehingga terendapkan fasies *braided channel fluvial system*, dan pada N22 – N23 terjadi kembali pengendapan *retrograding* sehingga terendapkan fasies *shoreface*.

Kata kunci: *Asosiasi Fasies, Lithofasies, Fluvial, Paleocurrent, Shallow Marine.*

## ABSTRACT

### ***GEOLOGY AND PALEO GEOGRAPHY OF KALINUSU AND ADJACENT AREA, BUMIAYU DISTRICT, BREBES REGENCY, CENTRAL JAVA***

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*The regional stratigraphy of the Kalinusu area, Bumiayu District, Brebes Regency, Central Java has a relatively different depositional environment consisting of the Kalibiuk Formation, the Kaliglagah Formation which is deposited in the marine environment, the Mengger Formation and the Gintung Formation which are deposited in the non-marine environment (Kastowo and Suwarna, 1996). This becomes the basis for knowing the paleogeography of the Kalinusu area through facies correlation analysis. This study aims to determine the geological conditions and identify the correlation of facies associations with paleogeographic reconstruction in the study area using geological field mapping methods with data analysis in the form of geomorphological data, geological structures, petrography, lithostratigraphy, and biostratigraphy. Based on geomorphology analysis, the research area consists of the Kalinusu Anticline Valley, Kalinusu Syncline Valley, and the Denunadational Plains of Kalinusu Fault. Based on stratigraphic, the research area from old to young is composed of carbonate sandstones, coarse-grained cross-sandstones, medium-grained sandstones and carbonate coarse-grained sandstones. In the research area, there are geological structures in the form of Kalinusu Syncline, Kalinusu Anticline and Kalinusu Left Horizontal Fault. Based on the facies association with the Nichols facies model approach, 1988, the paleogeographic reconstruction of the research area was divided into 5 stages of the facies association change event, namely at N19 - N20 deposited offshore facies with deposition of progression, N20 - N21 experienced deposited beach facies prograding then retrograding and depositing facies shoreface, At N21 - N22 there was prograding deposition so that the braided channel fluvial system facies were deposited, and at N22 - N23 retrograding deposition occurred so that the shoreface facies were deposited.*

*Keywords: Facies Assosiation, Lithofacies, Fluvial, Paleocurrent, Shallow Marine.*