

## **Geologi dan Studi Lingkungan Pengendapan Formasi Kerek Daerah Karanggatak Dan Sekitarnya Kecamatan Klego Kabupaten Boyolali Provinsi Jawa tengah**

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*The studied area administratively located in Karanggatak Village area , Klego Subdistrict, Boyolali Regency , Central Java Province. Located on coordinates 466000mE – 471000mE and 9187000mN – 9192000mN which covering about 25 km<sup>2</sup>. This Thesis will be discussed about geological aspect and depositional environment of Kerek Formation. Geomorphology of studied area is divided into three basic forms , such as Structural basic form which is subdivided into Structural Ridge ( S1 ) and Structural Valley ( S2 . Fluvial basic form which is subdivided into Alluvial plain ( F1) and River body ( F2 ) and Denudational basic forms which is subdivided into Middle Erosional Ridges ( D1 ). The drainage pattern developed in studied area are Subdendritic and Rectangular based on A.D. Howard’s classification in 1967.*

*The stratigraphy of studied area consist of four units with the composition from the oldest to the youngest are Kerek carbonates sandstone ( Middle – late Miocen ), Kerek carbonates claystone( Late Miocen ) , Notopuro breccia ( Plistocene ) and alluvial deposition ( Holocene ) . The geological structure developed in studied area is Kauman Reverse Fault , Gondanglegi Transform fault , Karangmojo transform Fault , Karanggatak Sincline , Kauman Anticline and Bawu Sincline which is happened because of tectonic compression in Pliocene .*

*Due to analysist of Kerek depositional environment in studied area we know that Kerek carbonates sandstone environment depositional is in submarine fan with turbidite meccanism which is got into Middle fan sub-environment and smooth portion of suprafan lobes facies. And Kerek carbonate claystone depositional is in Submarine fan with turbidites meccanism and it gei into Lower Fan sub depositonal.( Walker 1978 ).*

**Keywords :** *Kerek formation , Depositonal environments, submarine fan .*