

Fasies dan Diagenesis *Beachrock* di Daerah Pantai Sadranan dan sekitarnya, Kecamatan Tepus, Kabupaten Gunungkidul

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ABSTRAK

Beachrock dijumpai secara jarang di berbagai pantai di Indonesia. Salah satu pantai yang mengandung *beachrock* terletak di Pantai Sadranan, Kabupaten Gunung Kidul, Daerah Istimewa Yogyakarta. Sebaran *beachrock* di pantai inipun tidak terlalu luas, hanya kurang dari 500 meter sejajar garis pantai. Kelangkaan keberadaan *beachrock* inilah yang menjadi latar belakang penelitian ini. Dengan membuat 3 parit yang tegak lurus garis pantai, dimana setiap parit diambil 6 – 7 sampel untuk diamati dan dianalisa petrografi, tekstur dan komposisinya, penelitian ini diharapkan dapat melihat proses diagenesa yang membentuk batuan ini. Dari kenampakan lapangan, material organik yang membulat banyak mendominasi batuan ini, bersama dengan cangkang dan litik lainnya. Terdapat 3 kelas sedimen pada *beachrock*, yaitu: *Beachrock* tersemen kuat (rock-dominated & mineral dominated), *beachrock* transisi, non*beachrock*. *Beachrock* terbentuk pada sedimen yang kaya akan mineral & fragmen batuan, sementara melimpahnya komposisi fragmen cangkang akan membentuk sedimen lepas dan atau *beachrock* yang kurang terkonsolidasi. Jenis semen yang mengikat *beachrock* berupa semen kalsit *meniscus* dan semen kalsit *pendant*. Selain itu juga beberapa sampel *beachrock* memiliki preservasi porositas yang baik, menandakan kondisi sementasi yang minor. Terdapatnya semen kalsit *meniscus* dan semen kalsit *pendant*, dan kondisi sementasi yang minor mencirikan diagenesisnya terletak pada lingkungan karbonat *Vadose Zone of Precipitation*, yang terletak di zona subaerial dan berada di bawah permukaan dan di atas zona saturasi.

Kata kunci : *Beachrock*, diagenesis, Pantai Sadranan



Facies and Diagenetic of Beachrock in Sadranan Beach, Sub-district of Tepus, District of Gunungkidul

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ABSTRACT

Beachrock are rarely seen even in the most of the beaches in Indonesia. One of the beach that contains beachrocks are located in Sadranan beach, in Gunungkidul, Special Region of Yogyakarta. The occurrences of the beachrock in this beach is not even wide, less than 500 metres along the coastline. The rarity of beachrock occurrence is why the research is executed. By digging 3 sections perpendicular to coastline, where every section is sampled 6 – 7 specimen to be analyzed of its petrography, texture, and the composition, it is hoped that the diagenetic process that forms the *beachrock* can be determined. By its appearance in the field, the round-shaped organic material seems to be dominating its whole composition, along with other skeletal fragment, lithic fragments, and minerals. It can be determined that there are 3 classes of sediment for beachrock that is “Strongly cemented beachrock (rock-dominated & mineral-dominated), transition beachrock, and nonbeachrock. Beachrock forms when the sediment is rich of minerals and lithic fragments, while when it is rich of skeletal fragments will form either weak-cemented beachrock, or unconsolidated sediments. Most of the beachrock specimen contains meniscus calcite cement and pendant calcite cement. Also, most of the specimens has well preserved porosity and contains little secondary porosity, indicating minor cementation. By the occurrence of meniscus calcite cement, pendant calcite cement, and also minor cementation it can be assumed that its diagenetic process occurs in Vadose Zone of Precipitation, which is located in subaerial zone and located below surface and above of saturation zone.

Keyword: *Beachrock*, diagenesis, Sadranan beach