

Studi provenance pada batupasir di Formasi Walat, Kecamatan Cibadak, Kabupaten Sukabumi = Provenance study on sandstones in the Walat Formation, Cibadak District, Sukabumi Regency

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Abstrak

Formasi Walat merupakan salah satu formasi yang tersingkap pada daerah Gunung Walat, Kecamatan Cibadak, Kabupaten Sukabumi yang berumur Oligosen Awal (Effendi, 1998). Berdasarkan Effendi (1998) Formasi Walat termasuk kedalam Peta Geologi Regional Lembar Bogor. Pada penelitian kali ini studi provenance menjadi fokus utama, pengambilan sampel genggam serta pengukuran data stratigrafi dilakukan di lapangan untuk membantu analisis provenance daerah penelitian. Metode analisis utama yang digunakan adalah metode petrografi, berdasarkan klasifikasi batupasir Folk (1974) batupasir yang didapatkan di lapangan merupakan Quartzarenite, Sublitharenite dan Litharenite. Berdasarkan analisis petrografi, provenance utama daerah penelitian berdasarkan diagram Q-F-L dan Qm-F-Lt (Dickinson & Suzcek, 1979) adalah recycled orogen sedangkan sub-provenance berdasarkan diagram Qp-Lv-Ls dan Qm-P-K (Dickinson & Suzcek, 1979) ialah collision orogen dan plutonic-arc provenance. Kerangka tektonik yang memengaruhi tipe recycled orogen salah satunya ialah collision orogen yang diinterpretasikan berasal dari Pegunungan Meratus di Kalimantan, karena karakteristik batupasir yang didapatkan di lapangan dan juga berdasarkan keadaan geologi pada masa Oligosen Awal serta data dari analisis arus purba.

.....The Walat Formation is one of the formations exposed in the Gunung Walat area, Cibadak District, Sukabumi Regency which is of Early Oligocene age (Effendi, 1998). Based on Effendi (1998) the Walat Formation is included in the Regional Geological Map of Bogor. In this study, provenance studies were the focus. Hand-held sampling and stratigraphic data measurements were taken out from the field to help analyze the provenance of the study area. The main analytical method used is petrographic analysis, based on the Folk classification of sandstones (1974) the sandstones found in the field are Quartzarenite, Sublitharenite and Litharenite. Based on the petrographic analysis of the main provenance of the study area based on the Q-F-L and Qm-F-Lt diagrams (Dickinson & Suzcek, 1979) is recycled orogen while the sub-provenance is based on the Qp-Lv-Ls and Qm-P-K diagrams (Dickinson & Suzcek, 1979) is collision orogen and plutonic-arc provenance. One of the tectonic frameworks that influences the type of recycled orogen is the collision orogen which is interpreted to originate from the Meratus Mountains in Kalimantan due to the characteristics of the sandstones obtained in the field and based on geological conditions during the Early Oligocene as well as data from analysis of palaeocurrent.