

SARI

Formasi Tanjung merupakan salah satu formasi pembawa batubara yang ada di Indonesia, khususnya di Cekungan Barito. Formasi ini tersingkap di daerah Sekako, Kalimantan Tengah, sebagai *seam* Gaharu dan Kasturi. Tujuan dari penelitian ini adalah untuk mengetahui karakteristik maseral batubara, berupa dominansi maseral dan mikrofasiesnya, serta tipe dan perkembangan *mire* tempat batubara terendapkan di daerah penelitian, yang digunakan untuk membantu studi geologi batubara daerah Sekako, Kalimantan Tengah. Metode dan prosedur penelitian yang dilakukan ialah: pengambilan data dengan *measuring section* serta pengambilan sampel dengan metode *channel sampling*; pengolahan sampel meliputi sampel petrografi organik, kadar abu, kadar sulfur, dan reflektansi vitrinit; dan analisis data meliputi interpretasi kadar abu dan sulfur, mikrofasies batubara, grafik TPI vs GI, GWI vs VI, serta rekonstruksi *paleomire*. Berdasarkan hasil pengamatan, litotipe yang berkembang ialah *bright coal* dan *banded bright coal*. Nilai reflektansi vitrinit (R_{max}) berkisar antara 0,70-0,98%, sehingga peringkat batubara masuk dalam peringkat subbituminus. Analisis petrografi organik didapatkan kelimpahan maseral vitrinit pada semua sampel dengan rentang nilai 94–98,09% vol, inertinit sebesar 1,36–4,09% vol, grup liptinit sebesar 0,36–4,18% vol, sedangkan untuk mineral memiliki kelimpahan dengan rentang nilai 0–1,18% vol. Data kadar abu (% wt *dry basis*) berkisar antara 2,81-5,83%. Data kadar sulfur (% wt *dry, ash free*) berkisar antara 0,31-1,66%. Berdasarkan hasil analisis data, didapatkan bahwa karakteristik batubara daerah penelitian didominasi subgrup maseral telovitrinit, dengan mikrofasies berupa *detrovitrinite-liptinite rich group* pada bagian bawah, lalu *telovitrinite rich group* dan *telovitrinite-inertinite rich group* pada bagian tengah, dan *detrovitrinite rich group* pada bagian atas. Tipe *mire* yang berkembang ialah *wet forest swamp* dengan kondisi lingkungan yang basah dan lembab, tingkat gelifikasi menengah-tinggi, asal nutrisi dominan berasal dari air tanah atau sedimen dibawahnya, serta vegetasi dominan yang menjadi penyusun batubara ialah tumbuhan berkayu. Perkembangan *mire* diawali dengan *topogenous mire*, lalu berubah menjadi *ombrogenous mire*, dan terakhir berubah kembali menjadi *topogenous mire*.

Kata Kunci: mikrofasies, rekonstruksi *paleomire*, petrografi organik, batubara Formasi Tanjung

ABSTRACT

Tanjung Formation is one of the coal bearing formation in Barito Basin. This formation is revealed in Sekako area, Central Kalimantan. The purpose of this study are to determine the characteristics of coal maceral, specifically maceral dominance and coal microfacies, as well as type and development of mire where coal was deposited in Gaharu and Kasturi Seam. Methods and procedures of research includes data retrieval, which consist of measuring section and sampling with channel sampling method; sample processing, as organic petrography samples, ash content, total sulfur and vitrinite reflectance; and data analysis included interpretation of ash and sulfur contents, coal microfacies, TPI vs GI graphs, GVI vs VI graphs, and reconstruction of paleomire. Based on the results of observation, the lithotypes of coal are bright coal and banded bright coal. Vitrinite reflectance values (R_{max}) range from 0,70 to 0,98% and are catagorized as subbituminous rank coal. Organic petrography analysis result in range of vitrinite abundance from 94 to 98,09% vol, inertinite group from 1,36 to 4,09% vol, liptinite group from 0,36 to 4,18% vol, as well as minerals from 0 to 1,18% vol. The ash content datas range from 2,81 to 5,83% (wt dry basis). Total Sulfur datas range from 0,31 to 1,66% (wt dry, ash free). Based on the results of data analysis, it was found in study area, the coal characteristics are dominated by telovitrinite maseral subgroups, with microfacies are included of detrovitrinite-liptinite rich group in the lower part, telovitrinite rich group and telovitrinite-inertinite rich group in the middle part, and detrovitrinite rich group in the upper part. Type of mire is wet forest swamp, with wet and humid environmental conditions, medium to high gelification degree, groundwater-sediment dominant nutrient origin, and woody plants dominant vegetation origin. The development of mire begun with topogenous mire, then changed to ombrogenous mire, and finally changed back to topogenous mire.

Keywords: coal microfacies, paleomire reconstruction, organic petrography, Tanjung Formation coal