

SARI

Formasi Baturaja di Lapangan 'GJ' merupakan salah satu formasi dengan litologi penyusun berupa batuan karbonat yang terbukti sebagai reservoir hidrokarbon yang terletak di Sub-cekungan Palembang Selatan, Cekungan Sumatera Selatan yang termasuk ke dalam wilayah kerja PT Sele Raya Belida. Penelitian ini bertujuan untuk mengidentifikasi fasies batuan serta lingkungan pengendapan dan distribusinya pada interval Formasi Baturaja di Lapangan 'GJ'. Penelitian dilakukan dengan melakukan integrasi pada data log sumur (gamma ray, density, neutron dan resistivitas), data petrografi *side wall core*, serta data biostratigrafi. Berdasarkan hasil analisis untuk interpretasi fasies teridentifikasi beberapa litofasies di antaranya adalah *bioclastic wackestone*, *bioclastic larger foraminiferal wackestone*, *crystalline limestone*, *bioclastic red algae wackestone*, *bioclastic coralline floatstone*, *bioclastic planktic foraminiferal packstone*, dan *bioclastic planktic foraminiferal wackestone*. Lingkungan pengendapan kemudian ditentukan dengan menganalisis litofasies penyusun batuan dan distribusi foraminifera bentonik. Lingkungan pengendapan pada Formasi Baturaja berada pada lingkungan *reefal* seperti *backreef lagoon*, *reef*, dan *forereef slope*. Hasil interpretasi menunjukkan bahwa distribusi lingkungan pengendapan *backreef lagoon* mendominasi bagian tengah hingga tenggara, sementara pertumbuhan utama *reef* mendominasi pada sumur GJ-7, GJ-1, GJ-3, GJ-4, dan GJ-2 sebagai *build-up reef* dan menyebar lateral ke sekitarnya. Lingkungan *forereef slope* mendominasi di bagian tengah lapangan yang semakin menipis ke arah barat laut.

Kata kunci: fasies, lingkungan pengendapan, karbonat, Baturaja, Cekungan Sumatera Selatan.

ABSTRACT

The Baturaja Formation in the 'GJ' Field is a carbonate-dominated unit that has been proven as a hydrocarbon reservoir. It is located within the South Palembang Sub-basin of the South Sumatra Basin and lies within the working area of PT Sele Raya Belida. This study aims to identify the carbonate facies and interpret the depositional environments along with their distribution within the Baturaja Formation interval in the 'GJ' Field. The analysis was conducted through the integration of well log data (gamma ray, density, neutron, and resistivity), petrographic data from side wall core samples, and biostratigraphic data. Facies interpretation resulted in the identification of several lithofacies, including bioclastic wackestone, bioclastic larger foraminiferal wackestone, crystalline limestone, bioclastic red algae wackestone, bioclastic coralline floatstone, bioclastic planktic foraminiferal packstone, and bioclastic planktic foraminiferal wackestone. The depositional environments were interpreted based on the lithofacies characteristics and the distribution of benthic foraminifera. The Baturaja Formation was deposited in a reefal setting, consisting of backreef lagoon, reef, and forereef slope environments. Interpretation results indicate that the backreef lagoon depositional environment dominates the central to southeastern area, while the main reef growth is centered around wells GJ-7, GJ-1, GJ-3, GJ-4, and GJ-2 as reef build-ups, and it extends laterally outward. The forereef slope environment dominated the central part of the field and thins out toward the northwest.

Keywords: facies, depositional environments, carbonate, Baturaja, South Sumatra Basin.