

## SARI

Bendungan Saka terletak di Desa Simpang Saga, Kecamatan Buay Runjung, Kabupaten Ogan Komering Ulu Selatan, Provinsi Sumatera Selatan. Untuk menjamin kelangsungan konstruksi bendungan tersebut perlu dilakukan penyelidikan kondisi geologi teknik meliputi karakteristik tanah dan batuan, geomorfologi, struktur geologi, serta kualitas massa batuan dengan tujuan agar tidak terjadi kegagalan konstruksi dalam proses pembangunan. Metode penelitian dilakukan dengan pemetaan geologi teknik serta pemetaan kualitas massa batuan permukaan dengan skala 1:15.000.

Karakteristik geologi teknik daerah penelitian terdiri atas 6 satuan yaitu satuan sekis lapuk sedang, satuan andesit lapuk sedang, satuan breksi lapuk sedang, satuan breksi lapuk tinggi, satuan batugamping lapuk rendah, dan endapan pasir bongkahan. Kualitas massa batuan GSI daerah penelitian terdiri dari kelas *poor rock*, *fair rock*, dan *good rock*. Zona dengan kualitas massa batuan *poor rock* memiliki nilai *safe cut slope* 45° dan *allowable bearing pressure* 135 – 45 T/m<sup>3</sup>, zona dengan kualitas massa batuan *fair rock* memiliki nilai *safe cut slope* 55° dan *allowable bearing pressure* 280 - 135 T/m<sup>3</sup> dan zona dengan kualitas massa batuan *good rock* memiliki nilai *safe cut slope* 65° dan *allowable bearing pressure* 440 – 280 T/m<sup>3</sup>,

**Kata kunci:** Bendungan, karakteristik geologi teknik, kualitas massa batuan, *Geological Strength Index*, *safe cut slope*, *allowable bearing pressure*.

### **ABSTRACT**

*Saka Dam is located at Simpang Saga Village, Kecamatan Buay Runjung, Kabupaten South Ogan Komering Ulu, South Sumatra Province. In order to ensure the continuous performance of dam construction, the engineering geological investigation comprises soil and rock characteristics, geomorphological aspect, geological structure, and rock mass quality is needed to avoid construction failure during the process. Methods used in this study was conducted by 1 to 15.000 scale of engineering geological mapping and surface rock mass quality mapping.*

*The characteristics of engineering geology in the study area consists of 6 units, namely medium weathered schist units, medium weathered andesite units, medium weathered breccia units, high weathered breccia units, low weathered limestone units, and bouldery sand deposits. The GSI of rock mass quality in study area consists of poor rock, fair rock and good rock classes. Poor rock mass quality zone has 45° safe cut slope and allowable bearing pressure ranges about 135 - 45 T/m<sup>3</sup>, fair rock mass quality zone has 55° safe cut slope and allowable bearing pressure ranges about 280 - 135 T/m<sup>3</sup> and good rock mass quality zone has 65° safe cut slope and allowable bearing pressure ranges about 440-280 T/m<sup>3</sup>.*

**Keywords:** *Dam, engineering geology characteristics, rock mass quality, Geological Strength Index, safe cut slope, allowable bearing pressure.*