

## SARI

### **GEOLOGI DAN ESTIMASI SUMBERDAYA BATUBARA PADA *SEAM* A, B, DAN C DENGAN METODE *CIRCULAR USGS*, PIT PT. TIWA ABADI, KAB. KUTAI KARTANEGARA, PROVINSI KALIMANTAN TIMUR**

Estimasi sumberdaya batubara berperan penting dalam penaksiran nilai sumberdaya bahan galian tersebut, sehingga pemilihan metode estimasi harus sesuai dengan karakteristik geologi keterdapatannya, karena dapat menentukan tingkat keyakinan geologi endapan bahan galian tersebut. Lokasi penelitian berada di daerah X, Kab. X. Tujuan dari penelitian ini adalah untuk mengetahui tonase batubara berdasarkan tingkat kepercayaan geologi ke dalam kategori Tereka, Tertunjuk dan Terukur menggunakan metode Circular USGS. Penelitian ini juga dilakukan melalui pemetaan geologi terhadap batubara dan batuan lain, kemudian dilakukan korelasi antar singkapan batubara guna mengetahui karakteristik batuan dan pembuatan peta geologi serta pengolahan data hasil pemboran berjumlah 112 titik bor. Data yang diperoleh dari penelitian ini yaitu data pemboran yang tersebar di daerah penelitian, data singkapan batuan di daerah penelitian, data geologi regional daerah penelitian dan data koordinat lokasi penelitian. Data hasil pengolahan data pemboran yang telah dianalisis kemudian diperoleh nilai tonase batubara yang dilakukan di daerah penelitian yakni batubara *seam* A, B, dan C. Estimasi sumberdaya tereka dengan radius 1500 m pada *seam* A diperoleh Tonase sebesar 12.054.206 ton, *seam* B diperoleh tonase sebesar 3.348.331 ton, *seam* C diperoleh tonase sebesar 8.771.069 ton, sumberdaya tertunjuk dengan radius 1000 m pada *seam* A diperoleh Tonase sebesar 12.479.417 ton, *seam* B diperoleh tonase sebesar 3.766.112 ton, *seam* C diperoleh tonase sebesar 11.531.382 ton. Sedangkan sumberdaya terukur dengan radius 500 m pada *seam* A diperoleh Tonase sebesar 47.708.052 ton, *seam* B diperoleh tonase sebesar 12.334.313 ton, *seam* C diperoleh tonase sebesar 48.589.824 ton.

Kata Kunci: Estimasi, Sumberdaya, Batubara, Metode Circular USGS

**ABSTRACT**  
**GEOLOGY AND ESTIMATION OF COAL RESOURCES IN SEAM A, B, AND C**  
**USING CIRCULAR USGS METHOD, PIT PT. TIWA ABADI, KUTAI**  
**KARTANEGARA REGENCY, EAST KALIMANTAN PROVINCE**

*Estimation of coal resources is important in assessing the value of this material Resources, so that the valuation method must be in accordance with the geological characteristics of its availability, because it can determine the level of geological confidence in the material deposits. The research location was in the X region, X Regency, East Kalimantan Province. The purpose of this study was to find out the coal tonnage based on the geological confidence level in the category of Affected, Indicated and Measured using the USGS Circular method. This research was also carried out through geological mapping of coal and rock, then carried out between coal outcrops to understand coal and geological map making, and then analysis the data in this research are obtained from mining as much as 112 mining points. After doing these things, calculation of inferred, indicated and measured Resources can be done. The data obtained from this study are mining points data in the study area, outcrop coal data found in the study area, the geological data of the study area and the coordinates of the study location. Data obtained from mining points. The estimated inferred resource with a radius of 1500 m on seam A obtained a tonnage of 12,054,206 tons, seam B obtained a tonnage of 3,348,331 tons, seam C obtained a tonnage of 8,771,069 tons, an indicated resource with a radius of 1000 m on seam A obtained a tonnage of 12,479,417 tons, seam B obtained tonnage of 3,766.112 tons, seam C obtained tonnage of 11,531,382 tons. While the measured resources with a radius of 500 m on seam A obtained a tonnage of 47,708.052 tons, seam B obtained a tonnage of 12,334,313 tons, seam C obtained a tonnage of 48,589,824 tons.*

*Keywords : Estimation, Resources, Coal, USGS Circular Method*