

RINGKASAN

Batu bara merupakan salah satu hasil bumi yang terbentuk dari sisa-sisa tumbuhan yang tidak sempat mengalami pembusukan secara sempurna. Pada penelitian ini batu bara di deteksi berdasarkan nilai resistivitas alat geolistrik digital, adapun tujuan penelitian ini Menentukan perbandingan nilai resistivitas alat digital dan manual berdasarkan implementasi alat geolistrik digital. Perbandingan persentase error hasil alat geolistrik manual dan digital berdasarkan model resistivitas batu bara di Desa Baru, Kecamatan Mestong, Kabupaten Muaro Jambi, Jambi. Metode penelitian ini menggunakan konfigurasi wenner dengan pengambilan data pada 4 lintasan dengan setiap lintasan memiliki panjang sejauh 200 meter. Hasil yang di dapatkan dalam menentukan perbandingan nilai resistivitas alat digital dan manual berdasarkan implementasi alat digital geolistrik di dapatkan nilai persentase tertinggi pada alat resistivity meter manual sebesar 7,6% di lintasan 4 dengan kedalaman batu bara diperkirakan 22,3 meter – 40,3 meter, sedangkan nilai persentase alat digital pada lintasan 4 sebesar 37,0% dengan kedalaman batu bara diperkirakan 3 meter – 7 meter dan nilai persentase terendah sebesar 4,9% di lintasan 2 dengan kedalaman batu bara diperkirakan 3,75 meter – 17,8 meter, sedangkan nilai persentase alat digital pada lintasan 2 sebesar 27,4% dengan kedalaman batu bara 2,5 meter – 7,5 meter. Hasil ini didapatkan dengan menggunakan perbandingan nilai pada 4 lintasan yang telah dilakukan pengambilan data. Dalam menentukan perbandingan presentasi nilai error resistivitas alat digital dan manual yang telah dilakukan mendapatkan hasil nilai error tertinggi pada alat resistivity meter manual sebesar 7,6% dan nilai error terendah sebesar 4,9% dengan rata-rata nilai error sebesar 6,07%. Sedangkan pada alat resistivity meter digital nilai eror tertinggi yang didapatkan sebesar 37,0% dan nilai error terkecil sebesar 27,4% dengan nilai error rata-rata sebesar 31,27% hasil ini didapatkan dengan menggunakan perbandingan nilai pada 4 lintasan yang telah dilakukan pengambilan data.

SUMMARY

Coal is a product of the earth that is formed from plant remains that have not had time to decompose completely. In this research, coal is detected based on the resistivity value of digital geoelectric tools. The aim of this research is to determine the comparison of resistivity values for digital and manual tools based on the implementation of digital geoelectric tools. Comparison of the percentage error results from manual and digital geoelectric tools based on the coal resistivity model in Baru Village, Mestong District, Muaro Jambi Regency, Jambi. This research method uses a Wenner configuration with data collection on 4 tracks with each track having a length of 200 meters. The results obtained in determining the comparison of resistivity values for digital and manual tools based on the implementation of digital geoelectric tools, obtained the highest percentage value for the manual resistivity meter at 7.6% on track 4 with an estimated coal depth of 22.3 meters – 40.3 meters , while the percentage value of digital tools on track 4 is 37.0% with an estimated coal depth of 3 meters – 7 meters and the lowest percentage value is 4.9% on track 2 with an estimated coal depth of 3.75 meters – 17.8 meters , while the percentage value of digital tools on track 2 is 27.4% with a coal depth of 2.5 meters – 7.5 meters. These results were obtained by using a comparison of the values on the 4 trajectories where data was collected. In determining the comparison of the presentation of resistivity error values for digital and manual instruments, the highest error value for the manual resistivity meter was 7.6% and the lowest error value was 4.9% with an average error value of 6.07%. Meanwhile, with the digital resistivity meter, the highest error value obtained was 37.0% and the smallest error value was 27.4% with an average error value of 31.27%. This result was obtained by using a comparison of the values on the 4 trajectories that had been taken. data.