

RINGKASAN

Identifikasi air tanah diperlukan sebagai upaya pencegahan atau mitigasi dalam pengambilan airtanah. Lokasi penelitian berada di Desa Kampung Laut, Kecamatan Kuala Jambi, Kab. Tanjung Jabung Timur. Penelitian ini menggunakan metode geolistrik konfigurasi Wenner-Schlumberger sebanyak 5 lintasan dengan panjang lintasan 150 meter dengan spasi jarak antar elektroda 10 meter. Dan uji sifat fisik air, yang meliputi uji pH, Total Dissolved Solid (TDS), dan Daya Hantar Listrik (DHL). Hasil pemodelan struktur bawah permukaan, nilai resistivitas antara 0.340 – 6.74 Ω m yang diduga terdapat air asin, payau, lempung, dan endapan pasir yang terdapat akuifer. Berdasarkan hasil pengujian sifat fisik air yang telah diambil sebanyak 20 sumur. Hasil dari pengujian pH diatas sebagian besar memiliki nilai pH yang rendah atau dibawah 7. Untuk pengujian TDS (*Total Dissolve Solid*) dapat terlihat bahwa rata-rata konsentrasi TDS berada pada kategori air tawar - kurang asin/payau Namun pada SKP 2 , SKP 3, dan SKP 6 air sumur telah terindikasi mengalami intrusi air laut. Dan pengujian DHL (Daya Hantar Listrik) dapat terlihat bahwa rata-rata konsentrasi DHL berada pada kategori tawar-payau. Namun, pada SKP 2, SKP 3, dan SKP 6 air sumur telah terindikasi mengalami intrusi air laut.

Kata kunci : air tanah, metode geolistrik, dan *wenner-schlumberger*

SUMMARY

Identification of groundwater is needed as a prevention or mitigation effort in groundwater extraction. The research location is in Kampung Laut Village, Kuala Jambi District, Kab. East Cape Jabung. This study used the Wenner-Schlumberger geoelectric method with 5 paths with a track length of 150 meters and a spacing of 10 meters between the electrodes. And tests of the physical properties of water, which include tests for pH, Total Dissolved Solid (TDS), and Electrical Conductivity (DHL). The results of modeling the subsurface structure, the resistivity value is between 0.340 – 6.74 Ω m which is suspected to contain salt water, brackish, clay, and sand deposits in aquifers. Based on the results of testing the physical properties of water, 20 wells have been taken. Most of the results from the pH test above have a low pH value or below 7. For TDS testing(Total Dissolve Solid) it can be seen that the average concentration of TDS is in the fresh water category - less salty/ brackish. However, in SKP 2, SKP 3, and SKP 6 there are indications of sea water intrusion. And testing DHL (Electrical Conductivity) can be seen that the average concentration of DHL is in the brackish category. However, at SKP 2, SKP 3, and SKP 6 there are indications of sea water intrusion.

Keywords: *groundwater, geoelectric method, wenner-schlumberger*