

ABSTRAK

Telah di lakukan pemetaan sebaran air tanah di Gampong lengkong Kota Langsa menggunakan metode *self-potential*. Tujuan pengamatan di lakukan untuk mengetahui pola sebaran air tanah, potensial air tanah dan untuk mengidentifikasi keberadaan akuifer air tanah di Gampong lengkong Kota Langsa. Pengambilan data berupa titik koordinat lintasan, nilai potensial pengukuran dan jarak pengukuran. Data diperoleh dari empat lintasan pada lokasi pengukuran. Lintasan pertama sepanjang 30 meter dengan 16 titik pengukuran, lintasan kedua sepanjang 48 meter dengan 25 titik pengukuran, lintasan ketiga sepanjang 30 meter dengan 16 titik pengukuran dan lintasan ke empat sepanjang 48 meter dengan 25 titik pengukuran. Data koordinat lintasan di olah menggunakan *software global mapper*, kemudian data jarak pengukuran di olah menggunakan *software excel* dan data nilai potensial di olah menggunakan *software surfer13* menghasilkan peta kontur isopotensial. Hasil pemetaan dapat di asumsikan bahwa pola sebaran air lengkong tersebar dari utara ke selatan atau dari potensial tinggi ke potensial rendah, potensial tinggi pada lokasi pengukuran terdapat pada lintasan ketiga dengan nilai potensial berkisar antara 60-80 mV, lintasan ketiga tersebut juga dapat diasumsikan sebagai zona konduktif (daerah akumulasi air tanah).

Kata Kunci: Air Tanah, Self-Potential, Akuifer, Peta Kontur Isopotensial

ABSTRACT

Mapping of ground water distribution in Langsa City Langsa has been carried out using a self-potential method. The purpose of the observation was to determine groundwater distribution patterns, groundwater potentials and to identify the presence of groundwater aquifers in Langsa City Gampong. Retrieval of data in the form of the coordinates of the path, the potential value of measurement and distance measurement. Data obtained from four tracks at the measurement location. The first track is 30 meters long with 16 measuring points, the second line is 48 meters long with 25 measurement points, the third line is 30 meters long with 16 measuring points and the fourth line is 48 meters long with 25 measurement points. The coordinate path data is processed using global mapper software, then the distance measurement data is processed using Excel software and the potential value data is processed using surfer13 software producing isopotential contour maps. The results of the mapping can be assumed that the arch pattern of water distribution spreads from north to south or from high potential to low potential, high potential at the measurement location is in the third lane with potential values ranging from 60-80 mV, the third lane can also be assumed as a zone conductive (groundwater accumulation area).

Keywords: Groundwater, Self-Potential, Aquifer, Isopotential Contour Map