ABSTRAK

PENYEBARAN AIR TANAH (*AQUIFER*) BERDASARKAN METODE GEOLISTRIK KONFIGURASI SCHLUMBERGER PADA DAERAH DUSUN SIRAME KECAMATAN LOSARI KABUPATEN BREBES PROVINSI JAWA TENGAH

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Telah dilakukan penilitian menggunakan metode resistivitas konfigurasi Schlumberger di daerah Dusun Sirame Kecamatan Losari Kabupaten Brebes Provinsi Jawa Tengah yang bertujuan Untuk mengindentifikasi penentuan lapisan air tanah berdasarkan nilai resistivitas berdasarkan interpretasi penampang 2D dan rekontruksi model 3D.

Data yang digunakan berupa data sekunder berupa nilai beda potensial (mV), arus litrik (mA), hambatan listrik (Ω), faktor geometri (m), dan lokasi pengukuran geolistrik. Akusisi data menggunakan metode geolistrik dengan konfigurasi schlumberger. Jumlah titik pengukuran sebanyak 39 titik. Pengolahan data menggunakan software Ms. Excel 2007,*software* **Interpex(IX1D)**, **rockwork15**. Hasil pengolahan data berupa peta kedalaman dan ketebalan air tanah.

Setelah melakukan pengolahan dan interpretasi metode geolistrik sounding pada daerah penelitian, batuan Batupasir merupakan akuifer utama. Terdapat 2 akuifer pada daerah penelitian yaitu Akuifer Dangkal berupa akuifer melayang. Dengan kedalaman akuifer mulai 10 – 15 meter dan ketebalan bervariasi sekitar 5 meter. Penyebaran setempat (spot) pada daerah penelitian, dan akuifer Dalam berupa akuifer tertekan. Dengan kedalaman akuifer mulai dari 65 – 100 meter dan ketebalan bervariasi lebih dari 10 meter. Penyebaran cenderung kebagian tenggara daerah penelitian. Pada hasil peta penampang korelasi X – X’ mewakili lapisan akuifer mengarah dari barat ke timur. Pengaruh intrusi air laut terdapat pada kedalaman 10-30 meter dengan ketebalan sekitar 10-40 meter, penyebaran hampir merata keseluruh daerah penelitian serta memiliki ketebalan yang bertambah mendekati permukaan laut (bagian timur-laut).

Kata Kunci : Air tanah, Resistivitas, Schlumberger,

ABSTRACT

DETERMINATION GROUND WATER (AQUIFER) BY USING OF GEOELECTRIC METHOD CONFIGURATION OF SCHLUMBERGER AT DUSUN SIRAME SUB DISTRICT LOSARI, BREBES REGANCY CENTRAL JAVA

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Studies have been conducted using Schlumberger configuration resistivity at Dusun Sirame Losari Brebes regancy in Central Java province that aims to identify the determination of the aquifer based on cross-sectional resistivity value based on the interpretation of 2D and 3D model reconstruction.

The data used in the form of secondary data in the form of value potential difference (mV), litrik current (mA), electrical resistance (Ω), the geometry factor (m), and the location of geoelectric measurements. Data acquisition using geoelectric method with Schlumberger configuration. The number of measurement points as much as 39 points. Data processing using software ***Ms. Excel 2007****, software* ***Interpex*** *(IX1D),* ***rockwork15****. The results of data processing in the form of a map of the depth and thickness of soil water.*

After doing the processing and interpretation of geoelectric sounding method in the study area, rocks Sandstone is a major aquifer. There are two aquifers in the study area are Shallow Aquifer in the form of drift aquifers. With the depth of the aquifer ranging 10-15 meters and thickness varies about 5 meters. The spread of local (spot) on the area of research, and aquifers in the form of confined aquifer. With the depth of the aquifer ranging from 65-100 meters and thickness varies more than 10 meters. The spread tends to the southeast area of research. On the results of a cross-correlation map X - X' represents the aquifer layer leads from west to east. The influence of seawater intrusion are at a depth of 10-30 meters with a thickness of about 10-40 meters, spread almost evenly throughout the study area as well as having an increased thickness of approaching sea level (northeastern).

Keywords: Groundwater, resistivity, Schlumberger,