ABSTRAK

Survei metode magnetik telah dilakukan disekitar daerah Tambakserang, Kecamatan Bantarkawung, Kabupaten Brebes untuk mengetahui struktur bawah permukaan di daerah tersebut berdasarkan nilai anomali medan magnet. Beberapa tahap yang dilakukan untuk mencapai tujuan tersebut yaitu pendahuluan, pengambilan data, pengolahan data, pemodelan dan intrrpretasi. Dalam penelitian ini dilakukan pengukuran sebanyak 156 titik pengukuran menggunakan *Proton Processing Magnetometer (PPM) GSM_19T v7.0.* Data induksi magnetik total yang diproleh kemudian dilakukan koreksi harian, koreksi IGRF dan koreksi pada topografi. Anomali medan magnet di topografi direduksi kebidang datar karena perbedaan topografi ketinggian daerah penelitian. Setelah itu dilakukan kontinuitas keatas pada ketinggian 2000 meter di atas sheperoid untuk menghasilkan anomali regional dan anomali lokal. Data anomali medan magnet lokal akan di sayat untuk memodelkan struktur bawah permukaan. Penelitian ini melakukan dua pemodelan yaitu lintasan A-A' dan lintasan B-B'. Berdasarkan hasil pemodelan terdapat model batuan yang diduga termineralisasi yaitu pada lintasan A-A´ batupasir yang mengandung mineral pirit 0.005001 cgs – 0.005051 cgs dan pada lintasan B-B´, intrusi porfir 0.010001 cgs, batuapasir yang mengandung mineral pirit 0.0050005 cgs, dan batuan intrusi 0.004401. Daerah penelitian diduga telah terjadi proses mineralisasi dari komposisi batuan dicirikan dengan keberadaan batuan intrusi dan batuan intrusi porfir yang mengakibatkan terjadi proses alterasi pada batuan, daerah yang diinterpretasikan termineralisasi terdapat dibagian tengah daerah penelitian.

Kata kunci: Metode Magnetik, Anomali Magnetik, Mineralisasi, Tambakserang.

ABSTRACT

A magnetic method survey was conducted around the Tambakserang region, Bantarkawung District, Brebes Regency, to determine the subsurface structure in the area based on the magnetic field anomaly value. Some steps taken to achieve the goals included an introduction, data collection, data processing, modeling, and interpretation. In this study, measurements were carried out in 156 measurement points using the Proton Processing Magnetometer (PPM) of GSM_19T v7.0. The total magnetic induction data obtained were then processed by daily corrections, IGRF corrections, and topographic corrections. The magnetic field anomaly in the topography was reduced to the flat plane due to the difference in the topography of the height of the study area. Then, continuity upwards was carried out at an altitude of 2000 meters above the sheperoid to produce regional anomalies and local anomalies. The local magnetic field anomaly data were incised to model subsurface structures. This study conducted two models, consisting of the A-A' path and the B-B' path. Based on the modeling results, there was a rock model that was considered to be mineralized, which was on the A-A' path of sandstones containing pyrite minerals of 0.005001 cgs - 0.005051 cgs and on the B-B' path, porphyry intrusion of 0.010001 cgs, sandstones containing pyrite of 0.0050005 cgs, and intrusive rocks of 0.004401. The research area was considered to experienced mineralization process from the rock composition characterized by the presence of intrusive rocks and porphyry intrusive rocks which resulted in an alteration process in the rock. The area that was interpreted to be mineralized was in the middle of the study area.

***Keywords:** Magnetic Method, Magnetic Anomaly, Mineralization, Tambakserang.*