

ABSTRACT

IDENTIFICATION OF BEDROCK CONFIGURATION BASIN BASED ON ANALYSIS OF GRAVITY METHOD ON WONOGIRI REGENCY

By :

Ra'sa Rama Rahmattulloh

115.180.039

Wonogiri district and its surroundings are part of the South East Java Mountain Zone, Java Island based on the physiographical division by van Bemmelen. (1949). This zone is the widest physiographic unit that is dominantly composed of volcanic rocks and carbonate rocks. In this area is found a natural phenomenon of the Baturetno Fence. There is a basement lower zone with a bouguer anomaly value of -79.5 mGal - 55.7 mGal (Complete Bouguer Anomaly Map), a bouguer anomaly of 79.8 mGal – 56.1 mGal (Regional anomaly Map) and a Bouguer anomaly of 2.7 mGal – (-6.8) mGal (local anomaly map). In the research area the Baturetno Basin (southern mountain slope) forms a semi-circular zone where it is bounded by the basement altitude zone in the north by the Plopoh slope and the Goat, in the east it is bordered by an Old Andesit Mount Complex, to the west by a stage massive, and in the south it is confined by a karst topography. (gunung sewu). The structural patterns obtained indicate that the structures are the limits and controllers of the elevation and lowness of the basement, as well as the weak zone of the outlet of the freezing rock intrusion. A 2.5 dimensional geophysical conceptual model below the surface suggests that the basement in this area has a lithology of metamorphic rocks and frozen rocks with a containment of rocks from the Baturetno Formation.

Keywords: *Baturetno Reservoir, Gravity Method, Basement, Southern Mountains*