UTILIZATION OF GRAVITY AND REMOTE SENSING DATA FOR STRUCTURAL MAPPING: A CASE STUDY AT KANGANKUNDE HILL, BALAKA, MALAWI.

ABSTRACT

The present investigation aims at denealiting the geological structures of kangankunde hill by using the integration between gravity data and remote sensing data, to improve the structural analysis of the study area. The subsurface geologic Lineaments (fault and fractures) and curvilinear (anticline or syncline) structures of the area, were determined from horizontal gradient, tilt derivative and Euler deconvolution using gravity data while remote sensing data was processed to delineate the surface lineaments .The results showed that the lineaments has complex trending patterns of NE-SW, N-S and NNW-SSE. However the integration of geological data ,gravity and remote sensing data also showed that the lineaments of area has a similar complex trending patterns to the mobile belts of the area(Southern irumide and Mozambique oregenic mobile belts).

Keywords: Gravity , remote sensing, lineaments, integration