

Reflection of local structures in the gravitational field Δg

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The aim of the work is to search the geological structures using the gravimetric method. Since the structures to which oil and gas deposits are often confined and which are relatively easy to find using the gravity exploration method are anticlinal folds. The inner layers of these folds are built by older rocks, and the outer ones are younger. The study area is located within the Outer Kakheti (Southern Kakheti) and is located between the Kakheti Range and the Iori Gorge. The paper provides a general geological and geophysical study of Outer Kakheti, its physical and geographical characteristics, geological and geophysical studied, stratigraphy, tectonics and characterizes 48 anticlinal folds located on the territory of Outer Kakheti. The methodology of gravimetric studies, a gravimetric device, in particular, a Quartz Astatic Gravimeter is described. The main types and methods of gravimetric survey. The main tasks that are solved using gravity exploration. Examples are given of how local structures are reflected in the gravity field of Δg . A gravity anomaly is not always confirmed by the geological structure that caused it, or is only partially confirmed. Then we can conclude that this geological structure has not been fully studied and determined. That is, gravity exploration allows us to completely map and depict a complete and detailed picture of the distribution of these structures. The work is presented on 32 p. References –29 , 7 pictures.