P10-11 THE GRAVITY DATA OF ALBANIAN REGIONS WITH EVAPORITIC DEPOSITS

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Evaporitic deposits of Albanides, wherever they have been appeared, as outcrops or encountered in drilled wells, consist generally of Gypsum, Anhydrides, Salts, Dolomits, Conglomerates and Breccies. It is noticed that above components are intercalated in evaporitic mass, almost homogenous rations. That is why that the evaporitic mass density is determinates as an average value of the densities of the individual cores of the drilled wells, or outcrops. The average density of the outcropping evaporitic deposits after different regions are as follows:

Xare-Butrint-Delvina Region.....2.59 g/cm^3
Picar-Kardhiq Region.....2.58 g/cm^3
Dumre Region.....2.55 g/cm^3
Peshkopi Region.....2.49 g/cm^3

It ýs noticed a very interesting fact: the density values of evaporites of Albanides decrease inSouth-North direction: from 2.58 g/cm^3 in Xare-Butrint, Delvina, Picar-Kardhiq regions of southern Albania, in 2.55 g/cm^3 in Dumre region of central Albania, while the density of Peshkopi evaporites in northern Albania amounts 2.49 g/cm^3. Presumably, this is as a result of increasing the pure salt and gypsum components in the evaporitic mass when passing from South to North.

The evaporitic out-crops in Albania contact on the surface with two kinds of deposits: Carbonates (Xare-Butrint, Delvine, Picar-Kardhiq regions) and Flysch deposits (Dumre, Peshkopi regions). the carbonate deposits do not change too much the density with depth and the oscillations of density values of the individual cores about the average one are very small. According to generalized densitogram that is made by the data of numerous wells, the average value of limestone density of Paleogene-Cretaceous is 2.67 g/cm^3.

From lithological point of view, the flysch deposits are composed from sandstone-shale and silistone deposits. They are considered typical concerning the increasing of the density with depth. With increasing of location depth, the geostatic pressure of above strata increases, which decreases the porosity and consequently, it increases the density.

From generalised densitogram, that is constructed for the Dumrea region based on some numerous drilled wells, the flysch deposits change the density from 2.47 g/cm^3 on the surface to 2.65 g/cm^3 at depth 3000 m. at the depth of about 1000 m, the density of flysch amounts to the average value of evaporites density, 2.55 g/cm^3. So, from surface until the depth of 1000 m, the density of flysch deposits is smaller than evaporites one, while under this depth, the density of flysch becomes higher than the density of evaporites. In this way, evaporites of Dumrea region, in relation to flysch deposits, operate as a "gravity dipole". From surface to the depth 1000 m this "dipole" creates the positive contrast of density, while for depths greater than 1000 m, it creates the negative contrast of density.

Evaporites of Albanides that contact in surface with carbonates (2.67 g/cm^3) as in Xare-Butrint, Delvina and Picar Kardhiq regions, are reflected with negative anomaly Bouguer gravity for reason of smaller density of evaporites (2.58-2.59 g/cm^3), while when evaporites contact on surface with deposits with smaller density, as in the Dumrea region where flysch deposits in surface have the density of 2.47 g/cm^3 and molasses of Pliocen-Tortonian has the density of 2.30-2.40 g/cm^3, are reflected with positive anomaly.

Especially from al other regions, the evaporites of the Peshkopi region, are not reflected in Bouguer anomaly. This can be explained with the supposition that evaporitic thickness in depth ought to be relatively small, so that their influence on negatºve anomaly taht characteristic the tectonic model of the Korabi (Palegonian) is negligeble Nevertheless, it must be noted taht the Bouguer map of the Peshkopi region is not so detailed compared to the other regions of the Albanides and therefore this interpretation has to be considered with reserves.

The Bouguer map of the Ionian zone presents a very interesting phenomenon as far as concerned the regional geology of the southern Albanides and northern Helenides. The Albanian part of the Ionian zone is characteristic by high gravity values, while the Greek territory by low gravity ones. The Cika and Kurveleshi thrust belts, that are included in Albania part of Ionian zone, towards south, crop-out on the surface the deposits in generally with always older geological ages. It ýs verified by drilled wells, also, that the synclines of southern part (e.g. the Drinos synclines) of Albanian Ionian zone are relatively more shallow than those of northern one. These geological facts that decreasing of the Bouguer gravity values in the Ionian zone southwards, from its southern parts in Albanian territory continuing in the Greek territory, must be related with geological surfaces deeper than carbonates, like the pre-Alpine Basement, which ought to become deeper in this direction. The presence of bigger evaporitic thickness in South part of Albania and more in northern part of Greece ought to be influenced in this decreasing of Bouguer gravity values.