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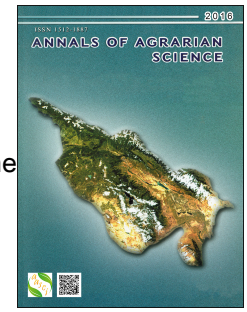

Geophysical research results of buried relief and distribution groundwater runoff of the Aragats massif

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PII: S1512-1887(17)30025-8

DOI: 10.1016/j.aasci.2017.02.013

Reference: AASCI 92

To appear in: *Annals of Agrarian Sciences*

Please cite this article as: V.P. Vardanyan, A.H. Hovhannisyan, Geophysical research results of buried relief and distribution groundwater runoff of the Aragats massif, *Annals of Agrarian Sciences* (2017), doi: 10.1016/j.aasci.2017.02.013.

Annals of Agrarian Science vol. 15, no.1, 2017

Geophysical research results of buried relief and distribution groundwater runoff of the Aragats massif

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Received: 09 September 2016; Accepted: 05 November 2016

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A B S T R A C T

Based on the synthesis and reinterpretation of long-term data of geophysical studies together with the hydrology - hydrological materials it has been received new data about the buried topography and spatial distribution of groundwater runoff of the Aragats massif.First of all, it requires to determine the structure of its buried relief, which is basically a regional relief aquitard. The underground water sources are considered to be precipitation on the massif (approximately 83% of the total), infiltration of the surface (11%), the condensation of water vapor in the aeration zone (5%) and underground inflow from adjacent areas (1.3%). Itis established to find connection (for topographical scale 1: 50000) based on the heights of the distribution function analysis of modern and buried reliefs (composed by using paleorelief maps of scale 1: 50000). The distribution of heights set size space between adjacent contour lines reliefs. It is created correlation relation between the buried and surface reliefs in different slopes and has been specified the ways of focused groundwater runoff and the possible locations of buried watersheds. Overall, the new data concerning the structure of the buried relief of Aragats massif and the distribution of its underground runoff allow to develop effective measures for the selection of underground waters and their rational usage for the purpose of water supply and irrigation.

***Keywords**:* massif, buried topography, groundwater runoff, electrical sensing card, paleorelief, focused runoff

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1.Introduction