

# PROCESSING OF EXPERIMENTAL DATA DERIVED FROM PUMPING THE PERFECT WELLS IN COMPLEX AQUIFERS

Esmeralda CHIORESCU<sup>1</sup>, Ioan ILAȘ<sup>2</sup>, Sergiu JIȚĂREANU<sup>3</sup>, Ana Andreea GURIȚĂ<sup>1</sup>

Email: [echiorescu@uaiasi.ro](mailto:echiorescu@uaiasi.ro)

## Abstract

In this paper, the correct interpretation of experimental data derived from pumping the perfect wells in complex aquifers was drawn up a mathematical model of computing and automatic data processing which is facilitated by computer program Filtrate Coefficients m. Thus filtration coefficients by each filtrate aquifer and the coefficient of proportionality of the Kusakin formula for the radius of drilling influence  $aR$  were determined. The proposed model was applied to case study of the Miercurea Ciuc area.

According to the mathematical model proposed a data processing was found that permeability of the aquifer under pressure is about four times higher than the groundwater aquifer, but for the constant  $aR$  obtained a value closer to the one proposed by Kusakin, which is a validation of the algorithm calculation.

**Key words:** confined aquiferous, unconfined aquiferous, filtration coefficients, pumping test

---

<sup>1</sup> USAMV Iași

<sup>2</sup> Technical University "Gh. Asachi", Iași

<sup>3</sup> Payments and Intervention Agency for Agriculture Iași