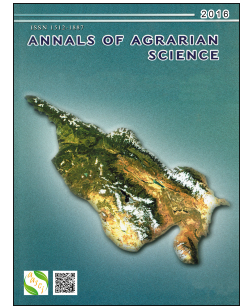


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# Assessment of Exploitation Reserves of Nabeghlavi Mineral Water Deposit

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## Abstract

The article deals with the results of modern research conducted on a famous Nabeghlavi Mineral Water deposit. In the last years the deposit was influenced by the natural disaster and mandatory restoration works, therefore necessity of reassessment of the exploitation reserves came up to the agenda. Hydrogeological and hydrochemical studies had been carried out. Hydrogeological studies revealed the complex hydrogeological and geofiltration conditions and geochemical diversity of the deposit. Based on the chemical and microbiological researches, the quality of the mineral waters and the conformity with the requirements for the category of mineral water were determined (2003/40/EC).

Based on 2 year monitoring results, the exploitation reserves of the deposit is calculated by using hydrodynamic, hydraulic and balance methods. Reliability of the used methods is assessed. It is determined that the total watershed exploitation output of the deposit is fully secured by the natural resources of water bearing complex of middle Eocene volcanogenic rocks.

**Keywords:** Hydrological conditions, Volcanogenic rocks, Natural discharge, Gradual Decrease, Mineral water, Hydrochemical point.

## Introduction

Nabeghlavi is a balneal-climatic resort. Its mineral water has been used for drinking and healing purposes, as well as for spa procedures since the distant past [1].

Nabeghlavi deposit is located on northern-western slope of Adjara-Imereti ridge and is distinguished by the complicated conditions of its formation. The first hydrogeological researches of the deposit were carried out in 1930 by Professor A. M. Ovchinnikov [2].

From 1937, hydrogeological expedition of Georgian Scientific and Research Institute of Balneology and Physiotherapy (T. Chichua, S. Chikhelidze) started a hydrogeological study

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