



Genesis of Tuzla salt basin

Amir Sušić (1), Amir Baraković (2), and Snezana Komatina (3)

(1) Salt mine TUZLA, Tuzla, BiH, (2) University of Tuzla, Tuzla, BiH, (3) University of Travnik, Faculty of Technical Sciences, Belgrade, Serbia (komsne@yahoo.com)

Salt is condition for the survival of the human race, and holds a special place in the exploitation of mineral resources. It is the only mineral raw material used in direct feeding, and therefore has its own specialty. Salt is a crystalline mineral that is found in seawater, as well as in underground areas where it is formed by deposition of salt sediments.

Occurrences of salt water near Tuzla and Gornja Tuzla have been known since the time of the Romans as "ad salinas". The name itself connects Bosnia with its richness in salt, because the word barefoot, which is preserved in a north-Albanian dialect, means a place where boiling salted water are obtained. At the time of the Bosnian kings, these regions are named Soli, which is in connection with occurrences of saline sources.

Geological studies of rock salt in the area of Tuzla basin are practically began after the annexation of Bosnia and Herzegovina by the Austro-Hungarian Empire, in the period from 1878 to 1918. Geological field work was conducted K. Paul, H. Hefer, E. Tietze and F. Katzer.

Monomineral deposit of rock salt Tetima is made of halite and anhydrite mixed with marl belt, while the bay of salt in Tuzla is polymineral and contains a considerable amount of thenardite (Na_2SO_4) and rare minerals: nortupit, nahkolit, bradleit, probertit, glauberite and others. Both salt deposits were created as a product of chemical sedimentation in the lower Miocene Badenian sediments.

The main objective of this paper is to show the genesis of the deposits and the spatial and genetic connection. In addition, genesis of geological research in the areas of Tuzla basin will be presented.