

Baskunchak: geological and industrial heritage

**ANISSIMOV, L.A., IVANOV, A.V., PERVUSHOV, E.M.,
MOSCOWSKY, G., BELONOVICH, A.V. Saratov State University,
Saratov 410026, Russia**

Baskunchak salt dome is located 200 km east of Volgograd, the South Volga Region, and is the central dome of the group of outcropped domes (Elton, Baskunchak, Azgir, Bischoho) in the western part of the Pricasapian Basin. Baskunchak as a site of the tourist attraction consists of three components:

- Baskunchak Lake with a large salt deposits of Quaternary age;
- Great Bogdo Hill with uplifted Mesozoic sediments;
- Karstic Fields around the lake with numerous solution cavities, sinkholes and subterranean drainage system.

Baskunchak salt deposits are located on the top of vast salt dome and have been created by dissolution of Permian salt and sedimentation of salt by solar evaporation. Secondary salt deposits were formed during the Quaternary are about 400 m in thick.

Baskunchak Lake is the most important source of salt in Russia. During the last 130 years the Lake which is known as the "principal saltcellar" of Russia and, later, of the Soviet Union has produced 200 million tons of salt. Intensive salt works and agricultural activity around the Lake have created some environmental problems, mainly, soil erosion and flow of muddy streams to the lake. The special protection programs have to be elaborated to preserve salt resources and touristic objects.

Surface flows bring to the lake depression a lot of clastic sediments forming beaches, mouth bars and other alluvial sediments. Agricultural activity around the lake has increased the soil erosion and removing the debris to the lake. This process is very dangerous for the salt quality and for the lake as whole. Now the process of organising the reserved territory is in progress.