

DETECTION OF POTENTIAL AQUIFER USING REMOTE SENSING DATA AND DIGITAL ELEVATION MODEL,
SADRAZAMKÖY, THE TURKISH REPUBLIC OF NORTHERN CYPRUS

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ABSTRACT.- The Turkish Republic of Northern Cyprus (T.R.N.C.) is under the Mediterranean climatic conditions and there is fairly water trouble due to insufficient rainfall and incorrect irrigation methods. For this reason, the investigations have been carrying out by The General Directorate of Mineral Research and Exploration (MTA) and also have been supporting by remote sensing methods. In this application, Landsat 5 TM's thermal IR band, which is the date 28.06.1994, 176/35-36 path/row and 30x30 m resolution, was evaluated and the temperature analysis of the sea surface along the T.R.N.C. shorelines was processed and the cold areas which can be interpreted as ground water outputs were detected in the surrounding of the Cape Koruçam (NW of Cyprus). The relation between these data from the satellite image and the land was researched by both aerial photographs and field observations. It is found that the paleokarstification was developed on the Upper Pliocene-Pleistocene aged bioclastic limestones and also a probably calcerous crust covering this formation in the surrounding of Sadrazamköy. It is understood that the bioclastic limestones and the karstic areas formed under the humid climatic conditions and morphometrically located at same levels as the sea terrace levels can be thought as a potential aquifer area.