

# **Investigation on source and quality of water of Cheshmeh-guilas North-west of Mashad N-E of IRAN**

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Cheshmeh-guilas is a natural pool in the Khorasan, Mashad, North-East of Iran. In Kopet-daagh basin, extend approximately 900 square meter.

As investigation on it's source water could be important for economy and providing water for the city of Mashad, studying in it's source and quality of water could be considered.

The spring lays on southern part of a syncline called Toos syncline. The host rocks consist of limestone and dolomite called Mozduran formation which are characterized by late jurassic in age. An active fault zone caused to form the spring. Recent earthquakes cause to be decreased more or less in it's volume of water. Specifications on semi-arid climatic zone in kopet-daagh caused to form special geomorphologic shapes and descending water pass through joints to the carstic Mozduran formation.

Hydrolic gradian caused the imprisoned water in limestone and dolomite pass to the syncline a few kilometers through fractures and joints and form sources of water.

The active fault zone in southern part of the syncline is a passage for going out of water.

Importance in directions of fractions caused to study faults and joints in this area.