Energy and Industries Hydraulic



ALGERIA - Texenna Client RAZEL

Project manager Tractebel

Project owner Agence nationale des Barrages et des Transferts d'Algérie

Miscellaneous

Dam 366 m long and 112 m high, Tunnel 13 km long (4,3 m of excavated diameter) Tabellout dam Earthworks 2012 - 2015



Description of the project

The Algerian National Dams and Transfers Agency (ANBT) has awarded to the GEIE/RAZEL/CMC/RAVENA consortium the contract for the Tabellout dam project construction near the city of Texenna, about 70 km south of the Jijel wilaya (district), in Algeria.

The project as a whole comprises the construction of a roller-compacted concrete (RCC) dam 366 m long and 112 m high (reservoir capacity 294 hm3) and a transfer tunnel 4.3 m in diameter (finished diameter 3.5 m) 13 km long, for which a tunnel boring machine (TBM) is being used.

Key features

- Expertise of slopes stability
- Definition of additional geotechnical surveys
 Expertise relating to the tunnel excavation
 - conditions

Description of the mission

From the start of the works, in March 2010, a number of geotechnical problems have been identified, in particular a landslide on the left bank of the dam, but also extensive degradation of the tunnel lining segments with the development of a collapse, and blocking of the TBM for more than 6 months.

At the request of the consortium, in July 2012, TERRASOL carried out an expert assessment of the landslide of the left bank of the dam, with a full review of the risks of embankment and earthworks instability for the whole of the site.

Given the complexity of the geological context and the insufficiency of geotechnical data, TERRASOL is also providing technical assistance and consultancy services to the consortium on the various geotechnical aspects, including for prediction of the behaviour of the massif during the tunnel excavation, and in particular the behaviour of the Numidian clays and the zones of toppling suspected of being the source of the problems encountered.

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