



# TERRATEST

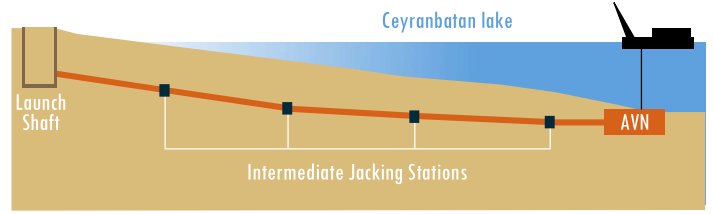
## Microtunneling

### CEYRANBATAN UF PLANT PROJECT

#### Bringing drinking water to Baku

One of the largest surface ultrafiltration (UF) water plant in the world is being built in Ceyranbatan. This water facility will have a treatment capacity of 520,000 m<sup>3</sup> per day bringing drinking water to Baku, capital city of Azerbaijan with over 3 million people population.

As a part of this project, three intake towers were erected to take clean water directly to the UF treatment plant. The connection between these intake structures and the intake building was done by three pipe lines of 450 meters each.



Pipe jacking was the trenchless method used to execute the three lake outfalls in the Ceyranbatan UF project.

A well trained and experienced personnel in pipe jacking works assured the completion of the project in an efficiently and safely way.

Pipe jacking works for the first drive began on March 2014 and were completed on May 2014. After TBM reached its final position, reception pit area was dredged and TBM was rescued safely.

On October 2014, second drive drilling works were completed after only 35 days. During this drive, TBM accomplished its best performance, achieving 28,60 meters in 24 hours.

By June 2015, the AVN machine bored 1,350 meters of tunnel 1,940 mm in diameter and was rescued three times from Ceyranbatan lake, completing the three intake lines required at Ceyranbatan UF Plant Project.

#### Project Data:

Pipeline length: 3 x 450 meters  
(a total of 1,350 meters)

Geology: clay, sand, silt

#### Machine Data:

AVN1600

Pipeline diameter: 1,940 mm

Max. torque: 360 kNm

### COMPANIES INVOLVED

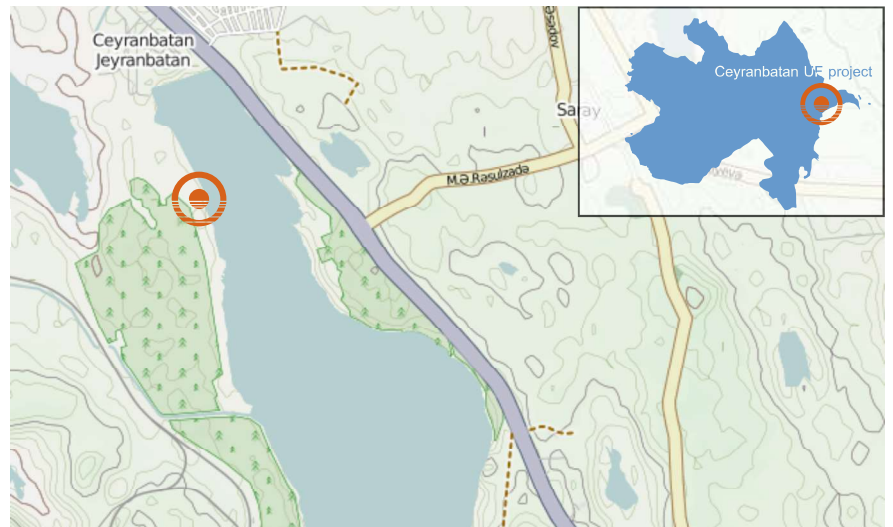
**EUROHINCA**  
Microtunneling specialist

**HIDRO-LOTUS**  
Main contractor

**PIRAMIDA**  
Jacking pipe manufacturer

**METEAR**  
Rescue company

### Ceyranbatan, AZERBAIJAN



PIPE JACKING  
Lake Outfall



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Airlock connection works during first drive.



TBM lifted by barge's crane during rescue stage.



Rescue final stage, TBM is taken on-shore.



Terratest Microtunneling specialist personnel at Ceyranbatan UF Plant Project.