Belobin Dam, Iran

**PROJECT SUMMARY**

Name: Belobin Dam, Iran  
Year: 2017 - on going  
Client: Zanjan Regional Water Authority  
Main Contractor: Zangan Pershia  
Instrumentation: Larzeh Sakht Savalan  
Consultant: Arkan Rahab

**OVERVIEW**

Belobin Dam is located south of Zanjan Province, 11 km from Halab city. It is an earthfill dam with clay core, 325m in length and 59m high. The dam provides potable and industry. It impounds a 53,780,000 m³ reservoir.

**MONITORING**

Monitoring of the dam construction integrity and long-term safety is carried out by recording measurements in the following key areas:

- **Main dam body**
  - Pore water pressures in the core
  - Effective stress in the core
  - Inclination in the core & shell
  - Settlement in the core & shell
  - Groundwater levels

- **Foundation**
  - Pore water pressures in the rock
  - Groundwater levels

- **Dam main drain**
  - Seepage

**PRODUCTS USED**

- **VW piezometers**
  Measurement of pore water pressure

- **VW Total Pressure Cells**
  For measuring total earth pressures

- **Standpipe piezometers**

- **3D Mechanical Crack Meter**

- **Portable MEMS Inclinometer System**
  For measuring lateral displacement

- **Remote Smart Mux**

- **Smart Mux Interface**

- **V-notch Weirs**
  Measurement of seepage flows

- **Staff gauges**

- **GEO-XM**
  Magnetic system for measuring ground settlement.

- **VW Readout VWR1**
  Measures all types of vw instruments.

- **G8 PLUS DataLogger**

- **GeoAxiom software**

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V1.6 01/2018