

## SANTA EULALIA DAM

ORENSE –SPAIN

### Installation of 3 Extensometers for the control of the left bank hill side of the Santa Eulalia dam (Orense)

The Santa Eulalia dam regulates water supply for the generation of electricity in the Sil basin (Orense, Spain).

#### The problem

Since 1968, the sliding experienced on a specific zone of the left bank hill side of the dam has been controlled.

In 1990, 18 signs were installed in order to control the superficial sliding of the zone through an angular collimation from 2 piles located in the opposite bank.

In 2004, an access path was built from the dam to the affected zone in order to install 2 inclinometers (SE-1 and SE-2) and 1 piezometer. During the excavation, several control terminals were lost and many were shifted.

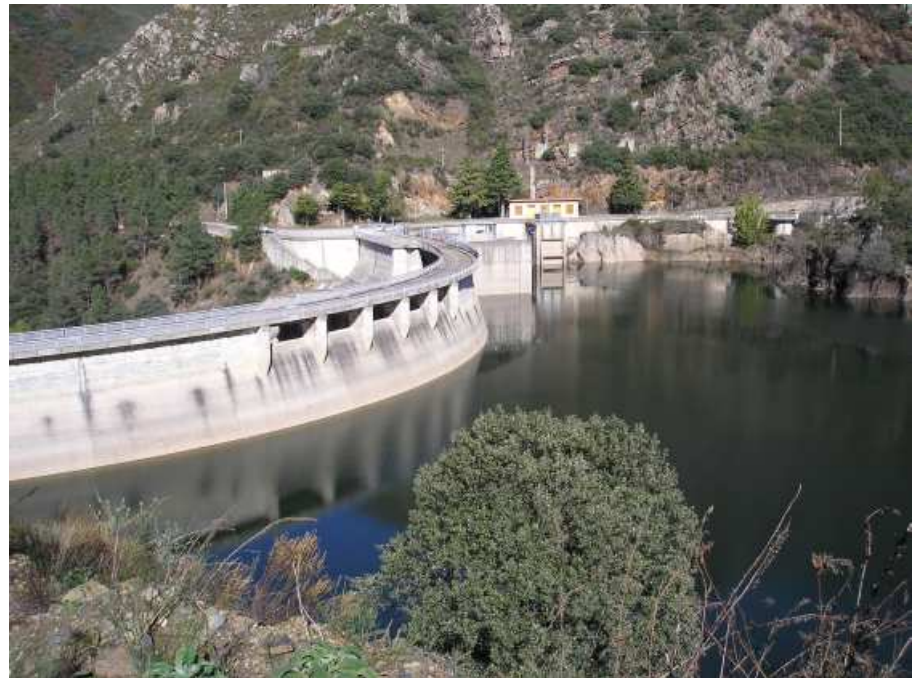
The aim was to keep controlling the evolution of the land slides in order to guarantee that the installation is maintained in optimum conditions from an operational point of view and improve as much as possible the safety conditions of the people, the installations and the environment.

#### The installation

Sol Data was in charge of performing three 80m perforations and installing 3 extensometers (80 m and 25 m.) in order to control the land slide of the left bank hill side.

Moreover, 8 topography signs were installed to complete the existing network.

Santa Eulalia dam



CLIENT :	<b>IBERDROLA</b>
DATE OF WORKS :	<b>OCTOBER 2006 – DECEMBER 2006</b>
<b>WORKS CARRIED OUT :</b>	
• Supply and installation of:	
- 3 Extensometers. (80 y 25 m.)	
- 5 topography signs	
- 1 geotechnical report of the perforated zone	
• The following perforation works were carried out:	
- 1 perforation at 30° of the 80m vertical	
- 2 80m long horizontal perforations	