PRELIMINARY GEOPHYSICAL SURVEYS ALONG TRENCHLESS EXCAVATIONS

SERVICE FOR TRENCHLESS CONSTRUCTION COMPANIES

When the geology of the subsoil is not known, the changes in lithology, the presence of natural obstacles, the thickness of the sediments constitute a serious problem in tunneling, causing delays and economic losses.

Geophysical survey allows to **identify in advance obstacles**, **lithological variations and underground utilities** along the planned route, even at depths down to **many tens of meters**. Planning becomes easier, with consequent **reduction in time and cost**, and **elimination of construction site downtime**.


ADVANTAGES OF PRELIMINARY GEOPHYSICAL PROSPECTING

- **Avoid long and costly construction site downtimes**
- **Precise forecasting of the costs**
- **Accurate construction site planning**
- **Geological information on the entire tunneling route or in its most important stretches**
- **Three-dimensional modelling of the subsoil**
- **Quick surveying time by use of dynamic systems**
- **Surveying in any context (terrestrial, marine, lake and river, both on rock and on sediments) and down to great depths**

TECHNOLOGY

Adastra Engineering uses diversified techniques according to the depth and the geological context of the site. The techniques are: three-dimensional **electrical resistance tomography (ERT), electromagnetic survey, Ground Probing Radar (GPR) survey** and other state-of-the-art geophysical techniques.

If in-progress tunneling is encountering difficulties in your construction site, we are able to intervene with **the utmost urgency** to tackle and solve your problem, operating both **on land and in water**.
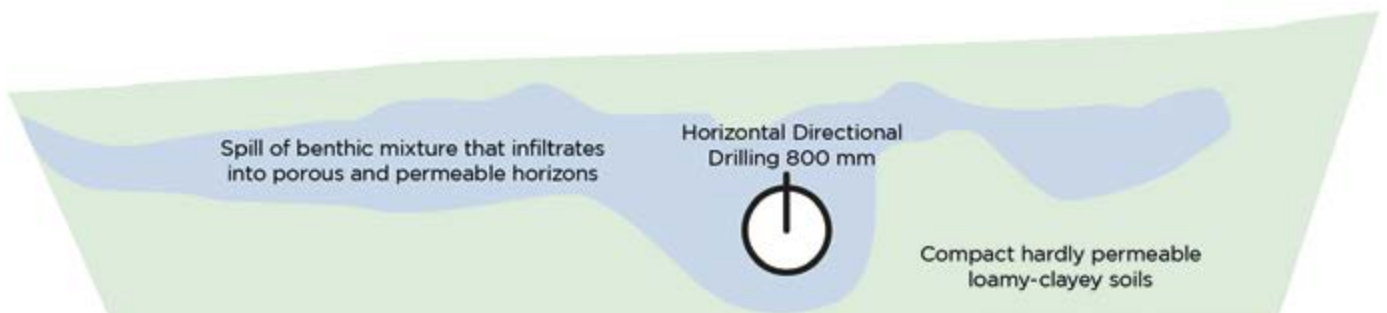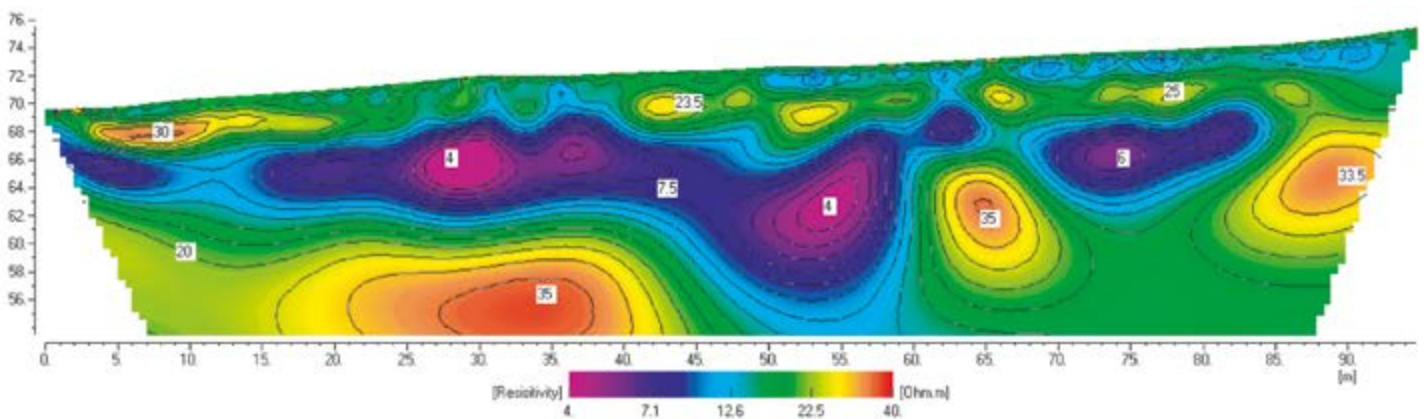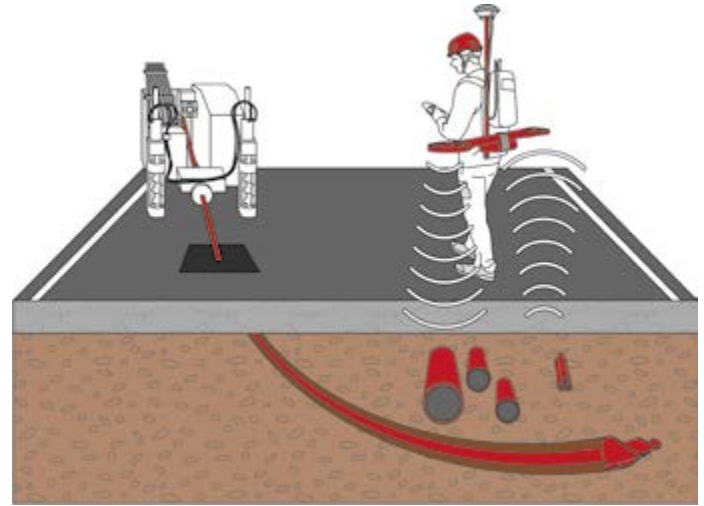
Tomografia di resistività elettrica pependicolare ad una TOC che evidenzia la fuga di miscela bentonitica lungo orizzonti permeabili.