

## Engineering Geophysics

Geophysical equipment and solutions can provide many of the answers engineers require to solve complex engineering problems. The importance of identifying potential hazards early – ideally before a project gets underway – is critical to both safety and cost control in the project's life-cycle.



### The Applus+ solution

Applus+ RTD's geophysical service teams use the latest geophysical equipment to collect high-quality data and provide pertinent information to engineers on the design of their structures. Through an early investment in geophysics services, projects can benefit from a more detailed analysis of the subsurface conditions, integrating these results with traditional geotechnical data. Applus+ RTD offers the ability to provide all of these services to our clients.

Highlights of the Applus+ engineering-geophysics solutions include:

- Non-destructive technology
- State-of-the-art equipment
- Robust design data
- Risk reduction
- Value engineering

Applus+ RTD can work with clients to design customised surveys that will provide geophysical data to assist in characterising the subsurface conditions on their sites.

### Target customers

Many engineering projects in a range of sectors could benefit from a quality geophysical survey. From construction and infrastructure to energy and transportation projects, geophysics can provide vital information about subsurface conditions.

Geophysical services are of benefit over the complete life-cycle of a project. Engineering geophysics plays an important role in project planning by providing engineers with valuable data to use in their initial designs. Such data can be used to determine soil and rock properties for a new building design or to evaluate a future right-of-way for unknown geological hazards.

Engineering geophysics also plays a key role during a project's construction phase. Services such as vibration monitoring and ground penetrating radar can assist contractors in determining risks to the project.

Finally, engineering geophysical services can be used during project completion and throughout the maintenance life-cycle of the structure or site. Examples include: quality-control surveys to determine concrete thickness and rebar placement.

## Key customer benefits

The main benefit of performing geophysical studies is the positive impact they can have on a project's design and execution, which ultimately results in cost savings and reduced risk to the client. In addition, Applus+ RTD solutions are environmentally sensitive, tailored to a client's specific needs and carried out quickly. By combining different geophysical technologies, Applus+ RTD can provide a complete picture of the subsurface to facilitate clients with their projects.

## Related services

- Ground Penetrating Radar (GPR) Services
- Vibration Monitoring Services
- Structural Health Monitoring
- Bridge Inspection Services