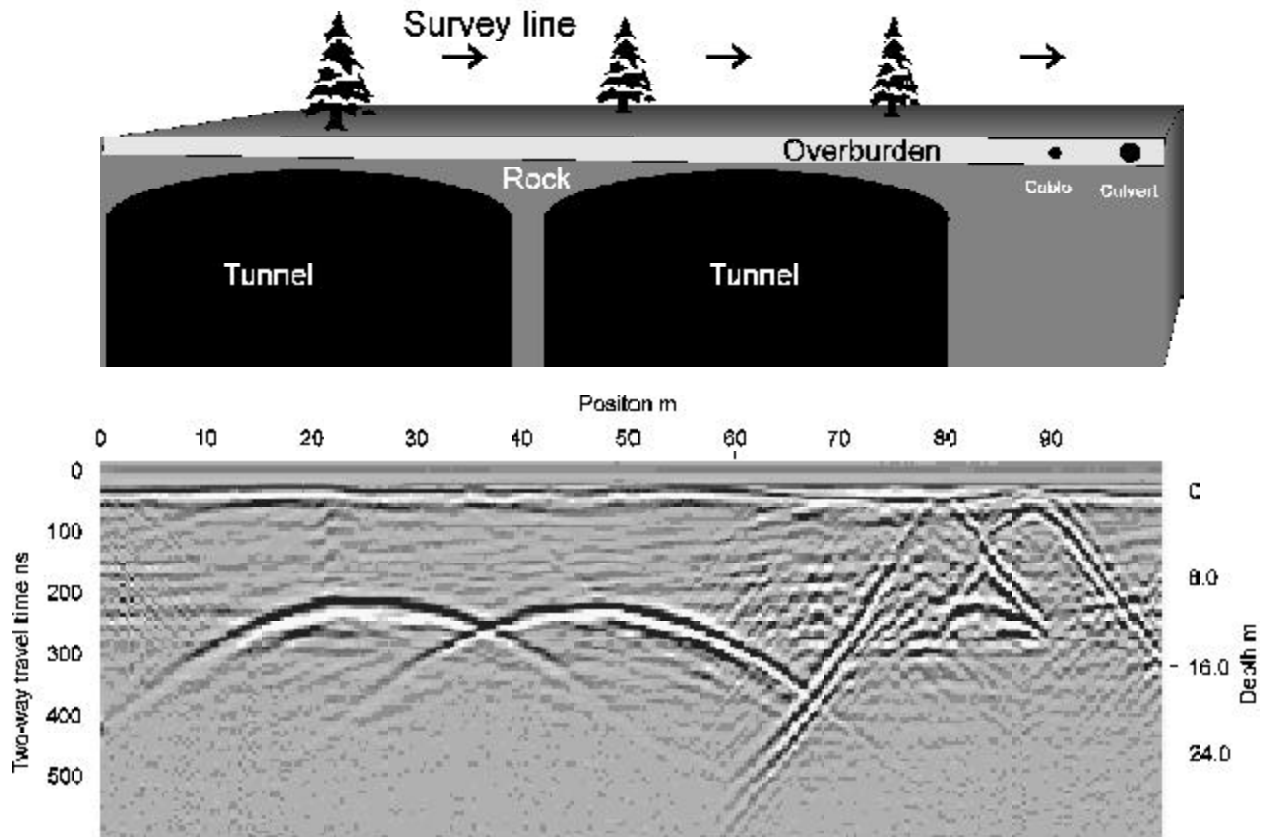


CASE STUDY

SUBSURFACE STRUCTURE MAPPING



Ground penetrating radar locates the two tunnels shown in the diagram, represented by the two arches on the left side for the data set. The two shallower features on the right side are generated by a cable and culvert approximately one meter deep.

Highlights

- **GPR locates two tunnels at 11 meters depth**
- **GPR locates a cable and culvert**
- **GPR defines overburden thickness**

Ground penetrating radar (GPR) provides a powerful means of mapping subsurface structures, utility, tunnels, pipes and cables, as well as surrounding geological features. This information is important for future remediation planning and development. Sensors & Software Inc.'s pulseEKKO® and Noggin® systems are used widely for these applications.

The above 50MHz pulseEKKO results from

Sweden located tunnels cut in bedrock at 11 meters below surface. A cable and a culvert at one meter depth are also detected.

The GPR information indicates minor fracturing in the surrounding bedrock which is valuable information for detecting potentially hazardous unstable rock formations.

GPR subsurface structure mapping can benefit city planners, civil engineers and developers. It not only informs of existing structures underground but also warns of potentially hazardous situations enabling proper precautions to be taken.

Data compliments of T S Geokonsult (Sweden).

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