GROUND PENETRATING RADAR (GPR)

Capabilities

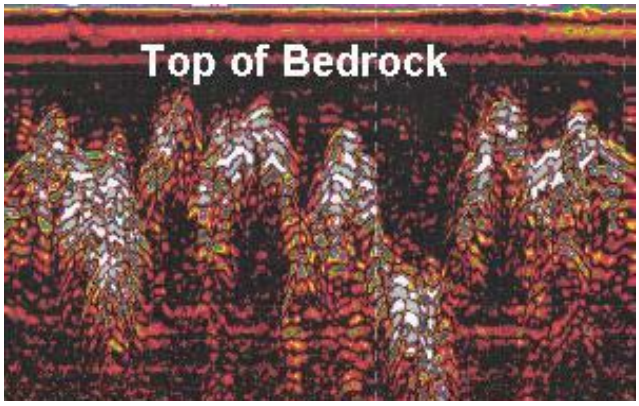
- Common investigation method to determine the presence of buried objects (no drilling or probing).
- Provides information on objects of buried to a depth of about 10 meters.
- Detects buried materials or indications of digging.
- Produces computer-generated cross section profile of buried objects.
- Operates by transmitting high frequency electromagnetic energy into ground.
- Transmitted energy reflects off of buried objects or earth materials in the ground.
- Device moves slowly and deliberately across entire surveyed area.
- Antenna on unit receives information and stores them for subsequent digital analysis.

Applications

- GPR is commonly used for environmental, engineering, archeological, and other subsurface investigations.
- Specific applications include detection of underground tanks, drums, geologic structures, voids, landfills, burial trenches, graves, and archaeological features.
- GPR depth range is limited by nature of the soil, frequency used and the power of the device.

Limitations

- Requires specialized expertise to conduct survey and interpret results.
- Objects in the earth cannot always be conclusively identified.
- Unknown fill materials, underground utilities, etc. may degrade results.
- Performance degraded in certain soils such as clay or salty soils.



Provided by the ROK-US Joint Investigating Team