ENVIRONMENTAL ASSESSMENTS

SPOTLIGHT
GEOPHYSICAL SERVICES

Geophysical measurements are an important part of a variety of environmental assessments that range from small Phase I/II investigations to regional contaminant migration mapping. For example, geophysical methods are a cost-effective means to locate abandoned underground storage tanks (USTs) and other subsurface structures. They can also be used to map inorganic contaminant plumes or leachate from a municipal landfill. The methods are non-invasive, often allowing for complete site coverage without disturbing potentially harmful materials. Examples of geophysical methods for environmental assessments include:

- Electromagnetics to map inorganic contaminant plumes, disturbed soil, USTs, and utilities. Instruments range from simple metal detectors that allow for a quick sweep of a site, to more sophisticated multi-channel instruments that record georeferenced data.

- Magnetics to map ferrous debris and subsurface structures. Magnetic methods are more sensitive than electromagnetic methods for targets such as abandoned wells and vertical structures.

- Ground Penetrating Radar (GPR) to assess the depth and lateral extent of subsurface structures and anomalous conditions. Often used in conjunction with an electromagnetic method.

- Electrical Resistivity Imaging to provide a 2D cross-section of electrical resistivity and identify anomalous trends related to certain types of inorganic contaminants. The method is also a useful tool to map the vertical extent of burial pits and landfills.

For more information, contact Spotlight Geophysical Services at info@spotlightgeo.com on the web at www.spotlightgeo.com