

# Electromagnetic Geophysical Investigations

## ABSTRACT

Near surface Geophysics provides a variety of tools useful to the environmental consulting industry. Geophysics can provide a non-destructive way to reduce risk of utility damage for Proposed Exploratory Boring Sites (PEBSs) and monitoring well installs, as well as aid in UST, septic tank and Drum Location, Identifying landfill cells, and delineation of conductive, radioactive, and acid plumes.

Electromagnetics, Utility locating instruments, Magnetometers, Seismic and Ground Penetrating Radar are commonly used technologies in this industry. This presentation aims to discuss these technologies and the common methods of applying them in environmental investigations. The presentation will include case studies of plume and metal delineation, and discussion of limitations of the available tools.

**Keywords:** Electromagnetics, Subsurface, Magnetometry, excavation, borings, plume delineation, utility location, Ground penetrating radar.

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