

Microgravity

A gravity survey measures changes in the Earth's gravity due to subsurface density variations. *Microgravity* is a term used to indicate a precision gravity survey in which near surface features are of interest. These features may include lateral changes in soil or rock density, buried channels, large fractures, faults, dissolution-enlarged joints and cavities. A microgravity survey can be used to map the lateral boundaries of anomalous features, estimate the amount of missing mass within an anomalous area, and guide confirmatory borings.

- Non-invasively map karst features (caves, conduits, dissolution zones), tunnels, mines and geologic hazards
- Gravity anomalies can be modeled to estimate the extent of anomalous features
- Not significantly affected by utilities, concrete, and other surface features that may degrade other geophysical data
- Measurements made along survey lines or within a survey grid to provide plan-view contour maps that show lateral trends and guide confirmatory borings
- Measurements with modern gravimeters allow for production rates that are equal to other standard surface geophysical methods
- Survey procedures outlined in ASTM D6430-99

