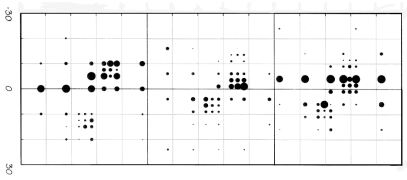
Smart Sampling ™

A risk-based, goal-oriented process that provides an objective and quantitative framework for evaluating and improving alternative remedial designs, for direct mapping of risk levels and cost alternatives, and for real-time decisions as excavation proceeds. The process emphasized graphical products to focus negotiations between the site owners, stakeholders, and regulators.

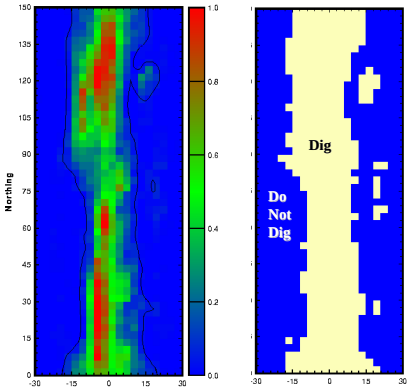
Where do I sample?

Sampling is an iterative process designed to extract *information* that increases confidence.



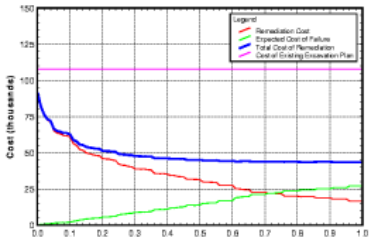
Where do I dig?

Advanced *geostatistical* tools, pioneered by the oil, gas, and mining industry, are used to calculate and display maps that describe the likelihood of compliance with regulatory criteria and precisely define the areas requiring removal or treatment.



What does it cost?

An *economic* objective function is used to identify what combination of characterization, treatment or disposal, and risk criteria minimize the total cost of the remediation.



Public Domain Software

UNCERT
Colorado School of Mines
http://uncert.mines.edu

GSLIB
Stanford Center for Reservoir Forecasting
http://ekofisk.stanford.edu/SCRF.html

Completed Projects

Mound:
OU-4 Miami-Erie Canal

Fernald:
Uranium in Soils Integrated Demonstration

Sandia National Laboratories:
Lead-Flyer Site

Sponsors

Joint DOE & EPA Innovative Treatment Remediation Demonstration

DOE Office of Science and Technology

DOE Miamisburg Area Office

EPA National Exposure Research Laboratory

International Atomic Energy Agency

A Joint Sandia National Laboratories-Oak Ridge National Laboratory Project

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