

Workshop 4 - The Advancement of Environmental Geophysics

WS4.0

Organizers: William Doll, Jonathan Nyquist, Oak Ridge National Laboratory; Peter Haeni, US. Geological Survey; Phil Romig, Colorado School of Mines; Don Steeples, Kansas Geological Survey; and Brian R. Spies, Schlumberger-Doll Research

This workshop, organized by the newly-formed Near-Surface Geophysics Section of the SEG, is motivated by the growing role of geophysics in environmental studies. The workshop is an extension of the conference technical program, and addresses practical issues affecting acceptance of geophysical methods in environmental applications.

Geophysicists widely recognize that advanced geophysical methods have a significant potential for site characterization and monitoring at environmental sites. Several factors will influence whether this role can be achieved. Funding to adapt or develop appropriate geophysical methods has lacked the financial incentives which have driven research in the petroleum industry. Once developed, many environmental instruments have not made it beyond the research lab, and are available only to a select few. Poor or inappropriate application of geophysical methods by unqualified investigators has given geophysics a bad name among some environmental managers. The threat of litigation causes some to avoid environmental geophysics and causes others to question the role of geophysics at environmental sites. Professional registration may become a necessity if trained geophysicists are to be allowed to apply their trade. These problems must be addressed if environmental geophysics is to achieve its technological capability.

The purpose of this workshop is to assemble a group of geophysicists, and those who work with and support them, with the goal of improving the quality and technological level of environmental geophysics. Formal presentations will include:

Overview of technological tools that could be developed for environmental applications:
Phil Romig, Colorado School of Mines;

Adapting seismic reflection technology for routine environmental use: *Don Steeples, Kansas Geological Survey;*

GPR: From cradle to common use: *Peter Annan, Sensors and Software, Inc.;*

Government funding of environmental geophysics research: *Clyde Frank, DOE Office of Technology Development;*

Industrial funding for environmental geophysics research: *Steve Danbom, Conoco;*

Professional registration to allow environmental geophysics to be practiced in the U.S.: *Carl Savit, Consultant;*

ASTM and other standards for geophysical methods: *Wayne Saunders, OYO Geospace Corp.*