

EDUCATION

M.E.P.C. The Pennsylvania State University. 1974. Masters of Environmental Pollution Control

B.S. The Pennsylvania State University. 1973. Geological Sciences

Master's Paper: "The Identification of Heterotrophic Bacteria Isolated from Acid-Mine Water". Twelve strains of bacteria were isolated from trickling filter media treating acid-mine water. An extensive series of bio-chemical tests was performed. From the compiled data the bacteria were identified to the genus level.

Continuing Education:

- The Pennsylvania State University. 1975. "Fundamentals of Water Pollution Control in Coal Mining" (20 hours).
- Pennsylvania Department of Environmental Resources. 1975. Training Course for Sewage Enforcement Officers (40 hours).
- Professional Education School of Engineering / Applied Science, Princeton University. 1977. "Introduction of Ground-water Pollution and Hydrology" (40 hours).
- National Ground Water Association. 1986. "Practical Karst Hydrology with Emphasis on Ground Water Monitoring" (40 hours).
- PA Department of Environmental Protection. 1998. "Workshop on Pennsylvania's Land Recycling Program, Act 2."

Certification:

- NUS Corporation. "Fundamentals of Hazardous Waste Site Activities-Health, Safety, and Operations Training Course" (40 hours). July, 1987. Pittsburgh, Pennsylvania.
- Waste Site Worker Supervisory Training in Accordance with 29CFR 1910.120(e)(4). April 27, 2001.
- Hazardous Waste Site Worker Refresher Training (8 hours annually) in accordance with 29CFR 1910.120(e)(8), State College, PA.
- Mine Safety Training in Accordance with MSHA 30CFR Part 46, Training/Retraining of Miners. May 31, 2002, plus annual Miner Refresher Course.
- American Safety and Health Institute Approved Basic First Aid and Adult CPR Certification, plus annual re-certification.
- Permit-Required Confined Space Training, Including Entrant, Attendant and Supervisor Non-Entry Rescue. August 2, 2004.

EXPERIENCE

April 2001 to present: *President and Principal Hydrogeologist, Meiser & Earl, Inc., State College, Pennsylvania.* Same as below.

November 1976 to April 2001: *Senior Hydrogeologist, Meiser & Earl, Inc., State College, Pennsylvania.* Completed projects including:

- investigating the geologic setting of a county landfill to determine its ground-water contamination potential;
- obtaining PADER approval for land disposal of industrial sludges;
- performing hydrogeologic studies for proposed developments to determine the suitability for on-site sewage disposal;
- developing coal refuse disposal regulations for Maryland Department of Natural Resources (DNR);
- evaluating hydrogeologic impact of strip mines in Pennsylvania, Maryland and West Virginia;
- supervising the investigation and preparation of a Phase I permit application for several municipal solid waste landfills;
- developing ground-water monitoring systems for several waste disposal sites and reviewing the monitoring analysis data to determine contamination sources;
- defining the extent of hydrocarbon contamination and supervising the recovery process at several spill sites;
- evaluating ground-water quality and quantity data from long-term pumping tests on commercial and municipal wells;
- supervising the hydrogeologic field investigation activities of a 55-acre Superfund site;
- speaking as quest lecturer at The Pennsylvania State University for a Solid Waste Seminar and Civil Engineering class concerning ground-water monitoring and a continuing education course on Hydrogeological Design for Surface Coal Mining;
- participating in the definition of ground-water flow systems for PADER study of kepone contamination;
- reviewing numerous mining permit applications and evaluating the hydrogeologic impact of mining as a consultant to the Maryland DNR Bureau of Mines;

- performing the hydrogeologic evaluate for non-coal mining permits, including one in a high quality watershed; and
- testifying as an expert witness before the Pennsylvania Environmental Hearing Board, Pennsylvania Township Zoning Hearing Board, Pennsylvania and Maryland County Courts, and British Columbia, Canadian Provincial Hearing Board.

March 1974 to November 1976: Hydrogeologist, Todd Giddings and Associates, State College, Pennsylvania. Supervised and coordinated a major study (budget exceeding \$120,000) of the ground water and geology of a seven-county watershed comprising essentially the Northern Susquehanna River Basin in Pennsylvania (COWAMP IV Basin). Testified as an expert witness in a coal mining permit hearing. Participated in the following projects: analyses of high-yield, water-supply wells; site suitability studies for municipal and industrial solid waste disposal, spray irrigation of industrial wastes, and sewage sludge disposal; leachate movement analysis around various waste disposal sites; collection of water samples from degraded ground-water areas and interpretation of the resulting quantitative analysis of low-yield monitoring wells; and design and installation of a cofferdam to restore water levels in dewatered colluvial wells.

PROFESSIONAL AFFILIATIONS

- National Ground Water Association, Association of Ground Water Scientists and Engineers, Active Member
- Pennsylvania Mining Professionals

PUBLICATIONS

Hershey, R.M., N.W. Hedrick and E.W. Meiser, Jr. 1984. Backfilling techniques and alkaline addition to control acid mine drainage in a coal strip mine. Proceedings of seventh national ground-water quality symposium. Las Vegas, Nevada. National Ground Water Association. September 26-28, 1984.

Hershey, R.M., and R.W. Pollok, 1995. Site Development Issues Related to the Geologic and Hydrogeologic Investigation of the Clinton County Solid Waste Authority Site, Wayne Township Landfill, Clinton County. Sixtieth Annual Field Conference of Pennsylvania Geologists. Williamsport, PA. October 5-7, 1995.

PROFESSIONAL REGISTRATION

Commonwealth of Pennsylvania Registered Professional Geologist, No. PG-0377-G
Virginia Board of Geology No. 000493
Wyoming Board of Registration for Professional Geologists, No. PG-2279