

SERGIO SMIRIGLIO

Senior Consulting Hydrogeologist

EDUCATION

Hofstra University, B.S. Geology, 1979

PROJECT EXPERIENCE

Mr. Smiriglio is a senior hydrogeologist with more than 20 years of varying project experience in the geotechnical and hydro-geotechnical fields. His work history includes project management and technical responsibilities with the United States Geological Survey and the firms of Geraghty and Miller Inc. and Malcolm Pirnie Inc., prior to establishing himself as a consulting hydrogeologist. He has been the principal of SSEC Inc. since 1988. His experience include the following activities:

- ◆ Has developed a GIS based fracture trace technique which is far superior to the stereo photography based system commonly in use.
- ◆ Conducted Stage two environmental site assessment including well installation, sampling and Hydrogeological evaluations for Bedford Hill Shopping Center, under consent order by the New York State Department of Environmental Conservation.
- ◆ Water Quality program evaluation and testing program, Hudson National Golf Course, Croton on Hudson, New York
- ◆ Centennial Golf properties, Carmel and Southeast, fracture trace analysis, geotechnical investigations, well siting and installation and pump tests for 27 hole golf course.
- ◆ Sleight Farm, fracture trace analysis, well siting and drilling, pump tests and water supply studies.
- ◆ Briar Hall Golf Club, French Hill Golf Club, Indian Hill Golf Club, Fracture trace analysis, water supply development for golf course irrigation system, Briarcliff Manor, Yorktown and Putnam Valley, New York
- ◆ Directed site assessment for disposal of harbor dredge material at several regional landfills.
- ◆ Conducted site suitability study for de-watering New York City harbor dredge materials.
- ◆ Developed a pumping test technique appropriate for analyzing the productivity of most bedrock aquifers.
- ◆ Determined the extent of carbon tetrachloride contamination of the water table aquifer under the Dupont plant in Danville, Illinois. Installed and implemented a successful recovery system.
- ◆ Completed a groundwater development study for a hotel site in Westchester County, New York. Study included initial fracture trace analysis, installation of bedrock wells, design, implementation, and analysis of several pumping tests and presentation of results to state and local authorities.
- ◆ Completed a groundwater development study for a a six hundred unit residential development. In Putnam County, New York, including a fracture trace analysis, pumping test and analysis and preparation of the hydrogeologic portion of the Environmental Impact Statement. This project also included presenting the results to the NYSDOH and NYSDEC for approvals.
- ◆ Completed a groundwater development study in Dutchess County, New York for an eight hundred unit residential development, which included a fracture trace analysis, installation of two bedrock wells, design and implementation of pumping tests suitable for the artesian limestone aquifer, and representation of the data to state and local agencies.
- ◆ Studied the effects of the Channel Master plant's surface impoundment on the surrounding environment in Ellenville, New York and design of the RCRA post closure monitoring system.
- ◆ Determined the extent and quantity of solvents in the formation beneath the Channel Master plant site and designed and implemented a recovery system to remove the contamination.
- ◆ Developed a 1.05 million gallon per day (mgd) water supply from a bedrock aquifer (Fordham Gneiss) for IBM Corp. in Putnam County, New York. Utilized fracture trace techniques to locate

suitable drilling locations and to improve the average yield of the test wells.

- ◆ Conducted general groundwater quality assessment of the Brunswick Shale aquifer at a Clifton, New Jersey steel plant site.
- ◆ Developed a 1 mgd water supply from limestone aquifer in Washington Township, New Jersey.
- ◆ Developed a .9 mgd water supply from the Farrington Formation, Gloucester, New Jersey.
- ◆ Completed a groundwater development project in New Paltz, New York for a proposed shopping center and office complex.
- ◆ Developed an alternate water supply from the Connecticut Valley shale to replace a water supply in the same formation contaminated by fuel oil at a mountaintop location in Farmington, Connecticut. Project required an innovative use of a packer sealing system to isolate contaminated shallow groundwater from the deep unaffected aquifer.
- ◆ Conducted a geologic study of the Woodbury and Merchantville Clay units in Burlington County, New Jersey to determine the suitability of a site for a regional landfill.
- ◆ Successfully determined and eliminated a source of contamination to the Town of Republic, Missouri deep limestone aquifer and well system.
- ◆ Conducted a general groundwater quality assessment of the Polaroid plant in Waltham, Massachusetts. Designed and implemented a solvent recovery system from the bedrock aquifer.
- ◆ Designed and supervised installation of RCRA Monitoring Systems at several industrial sites in New York, New Jersey, and Connecticut.
- ◆ Conducted a groundwater assessment on the Tomah products plant site in Pedrickstown, New Jersey and designed and implemented a contaminant recovery system to bring the site into ECRA compliance prior to sale of the company to Exxon Corp.
- ◆ Developed a groundwater supply for the Lakeover Country Club in Bedford, New York.
- ◆ Developed a groundwater supply for the Bedford Park Estates in Bedford, New York.
- ◆ Technical review of groundwater supply reports submitted to Town of Fishkill
- ◆ Evaluation of hydrogeologic impact of proposed County Route 11 for Dutchess County
- ◆ Various groundwater quality evaluations, Orange County, Putnam County and Dutchess County
- ◆ Various groundwater development projects, Putnam, Westchester, Orange County,.
- ◆ RCRA Assessment of an organically contaminated waste landfill, Orange County
- ◆ Environmental assessment of a proposed shopping center, Woodbury
- ◆ Multiple pumping test for a proposed development, Waywayanda
- ◆ Water supply development, Rockland County
- ◆ Groundwater quality evaluation and remediation, Long Island
- ◆ Various site assessments associated with property transfers
- ◆ Groundwater development project, Jefferson Township
- ◆ Groundwater development project, Hopatcong Township
- ◆ Property transfer environmental audits
- ◆ Investigation and remediation of fuel oil and solvent spill, Stamford
- ◆ Fracture Trace Analysis of the Town owned properties in Crawford New York
- ◆ Fracture Trace Analysis of County owned properties in Orange County, NY