

# ESSEX

*Engineering Science & Subsurface Exploration, P.C.*

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## **DENNIS J. GRAVES, P.G. Engineering Geologist (Principal)**

*geotechnical investigations, surficial and bedrock mapping,  
environmental site assessments, soil and groundwater remediation,  
materials testing*

### **Education**

Hudson Valley Community College, Troy, NY A.A.S. Civil Technology, Cum Laude	1977
State University of New York at Albany B.S. Geological Sciences, Magna Cum Laude Graduate Studies in Tectonics, Structural Geology and Petrology	1984
Rensselaer Polytechnic Institute, Troy, NY Graduate Studies in Groundwater Hydrology and Rock Mechanics	

### **Licenses**

Professional Geologist:

Pennsylvania
Virginia
Delaware

### **Professional Memberships and Associations**

Hudson-Mohawk Professional Geologists' Association  
New York State Council of Professional Geologists

### **Career Summary**

Mr. Graves is an engineering geologist with more than twenty-six years of environmental and construction experience and with special expertise in geotechnical and environmental site explorations and soil and groundwater remediation. He has experience in engineering and environmental geology, hydrogeology, site characterization, environmental assessments, construction materials testing, land surveying, and groundwater and soil remediation.

### **Experience**

#### **Geotechnical Investigations**

He is currently managing a multi-site geotechnical exploration program with properties in Connecticut, Delaware, Maine, New Hampshire, New York, New Jersey, Pennsylvania, Maryland, Massachusetts, Rhode Island and Virginia. Mr. Graves has collected and classified soil and bedrock samples using the unified soil classification system for soils, and the rock quality designation for bedrock samples. The investigations typically require subsurface exploration and development of geologic cross-sections and maps. Geologic

formations which have been investigated include Glacial outwash, till, kame and morainal deposits; Glacio-lacustrine and deltaic deposits; aeolian deposits; fluvial, backswamp and salt marsh deposits; flat-lying and folded limestone karst; highly deformed and faulted granitic gneisses and schists; massive and columnar jointed basalts; saprolitic deposits of various lithologies; flat-lying shales and sandstone; pyritic shales and coal; surface and under-mined sites. He has managed and performed QA/QC on the materials testing programs for sites which have proceeded to construction.

While with a Geotechnical firm in Latham, New York, Mr. Graves performed field, batch plant and laboratory QA/QC for asphaltic and portland concretes and soil. His experience also includes rotary drill rig operation, driven and cast-in-place pile installation, California Bearing Ratio (CBR) testing, concrete mix designs, soil and rock classification and various physical soils analyses.

### **Site Assessment**

Developed and performed environmental site assessments at various government and industrial facilities in Alabama, Connecticut, Delaware, Illinois, Massachusetts, Michigan, New York, New Jersey and Pennsylvania. Contaminant sources included Light Non-Aqueous Phase Liquids (LNAPL's), Dense Non-Aqueous Phase Liquids (DNAPL's), dissolved phase petroleum and chlorinated solvents, historic fill, heavy metals, glycol, acetone and PCB's.

Managed a Phase I and Phase II site assessment program for multiple sites in New York, New Jersey, Pennsylvania, Connecticut, Maryland, Massachusetts and Rhode Island. Involvement included all requirements per ASTM 1527 including background research, field activities, and report preparation.

Prepared a New York State Environmental Quality Review Act (SEQR) Full Environmental Assessment Form (EAF) for a project which involved the blasting and removal of approximately 60,000 cubic yards of gneissic bedrock. A negative declaration was obtained. The property is now the site of a 7-story building with a four-story parking garage. Mr. Graves also monitored the rock removal and rock face stabilization. Stabilization measures included rock bolting and the application of reinforced shotcrete

Mr Graves performed mapping of the surficial and bedrock geologic deposits at a major industrial facility in Connecticut where the release of several types of contaminants had occurred. He provided oversight for the installation, development and sampling of approximately forty overburden and bedrock monitoring wells in a network of seventy. The areas of concern at the facility included a former landfill, a former incinerator, sludge drying beds, hazardous waste storage units and manufacturing areas. He also assisted in the development of a RCRA B permit for the site and managed the compliance monitoring program.

Mr. Graves has assisted in the development, implementation and interpretation of groundwater withdrawal and injection tests in unconfined and semi-confined aquifers at industrial sites in New York and New Jersey where groundwater contamination with dissolved phase chlorinated hydrocarbons had been confirmed.

Mr. Graves performed and critically reviewed soil and groundwater assessment activities at major U.S. government installations in upstate New York and Alabama. The scope of work included the assessment of petroleum, DNAPL and glycol spills. Mr. Graves calculated the hydraulic conductivities, and transmissivities for affected areas as well as performing QA/QC on the soil and groundwater investigations.

**Career History**

Engineering Science & Subsurface Exploration, P.C. 1997 to Present  
Delanson, NY  
Engineering Geologist (Principal)

Law Engineering and Environmental Services 1991 to 1996  
Albany, NY  
Project Geologist

JD Crum Land Surveying 1988 to 1991  
Cobleskill, NY  
Project Manager, Research Specialist

Law Engineering and Environmental Services 1987 to 1988  
Albany, NY  
Geologist

Empire Soils Investigations 1977 to 1982  
Latham, NY  
Senior Engineering Technician

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