



Whitman's Richard Britton to Teach 'Groundwater in Fractured Bedrock' Continuing Education Course at Rutgers

EAST BRUNSWICK, N.J. (April 22, 2010) – Whitman, New Jersey's leading environmental and engineering management firm, has announced that Richard Britton, P.G., LSRP, the company's vice president of site investigation services, will teach a continuing education course at Rutgers University. Titled "Groundwater in Fractured Bedrock," the one-day course is intended for geologists, hydrogeologists, environmental professionals, remediation engineers, regulators, and corporate site managers responsible for the investigation and remediation of complex bedrock sites.

To be held from 9 a.m. to 4 p.m. on Wednesday, April 28, "Groundwater in Fractured Bedrock" will focus on practical aspects of groundwater in the fractured sedimentary bedrock of the Newark Group (Brunswick Aquifer), where thousands of sites have been impacted by industrial contaminants. According to Britton, remedial activities at such sites are usually impaired by oversimplified notions regarding groundwater flow and contaminant migration, as well as by the use of inadequate hydrogeologic characterization methods.

To teach the course, Britton will team up with Andrew Michalski, Ph.D., CGWP, P.G., a principal at groundwater consulting firm Michalski and Associates. Britton and Michalski have worked together at numerous major industrial sites located in the Passaic Formation, and have decades of hands-on experience in characterizing and remediating bedrock sites in the Newark Basin.

"Participants will have an opportunity to improve their understanding of the hydrogeologic framework best used to represent sedimentary bedrock sites," Britton said. "Illustrated by real-world examples, students will learn practical methods to conduct a rapid remedial groundwater investigation, or re-evaluation of problem sites."

Attendees are expected to be familiar with basic concepts of contaminant hydrogeology. Program topics will include:

- Fracture flow basics and differences with porous media
- Various conceptual flow models applied for groundwater in bedrock, and how their use influences apparent groundwater flow direction, velocities, plume delineation and remediation outcomes at contaminated bedrock sites
- Dominant role of certain bedding fractures in sedimentary bedrock, and harmful consequences of using inadequate conceptual models of groundwater flow
- A step-by-step approach to fracture flow characterization, using geological, geophysical, and hydraulic methods at unexplored sites, and sites with numerous wells
- Expedited characterization of contaminated groundwater in bedrock by means of temporary test holes, in-well flow tracing, flow sampling and packer testing. (Procedures, advantages and pitfalls of this practical dynamic approach to comprehensive bedrock characterization)

- How to conduct remedial investigations and groundwater cleanups at DNAPL and LNAPL Sites
- Plume delineation and CEA determination at fractured bedrock sites

Britton manages site investigation projects for Whitman and has lectured on, and implemented, conventional and innovative remediation technologies at numerous sites in New Jersey. He received his B.S. in Geology and Chemistry, and his M.S. in Environmental Science from Rutgers University, and is the past president of the Association of Engineering Geologists.

Dr. Michalski has more than 30 years of academic and consulting experience conducting groundwater investigations at hundreds of sites. In addition to publishing seminal papers on groundwater occurrence and movement in fractured bedrock of the Passaic Formation, Dr. Michalski developed practical bedrock hydrogeologic characterization tools that will be discussed in this class. He received a M.S. in Mine Hydrogeology and a Ph.D. in Technical Sciences from Cracow, Poland, and held senior technical positions with the Whitman Companies, TRC, and the Earth Technology Corp. He also taught an undergraduate hydrogeology course at Rutgers University for nine years.

To register for "Groundwater in Fractured Bedrock", call 732-932-9271. Multi-person registration is \$215; and regular registration is \$275.

Participants can also register at <http://www.cpe.rutgers.edu/courses/current/ew0108ca.html>.

About Whitman

Founded in 1985, Whitman is New Jersey's premier environmental and engineering management firm, comprised of the industry's leading professionals. The East Brunswick, N.J.-based company offers turnkey environmental, engineering, and mechanical, electrical and plumbing (MEP) services, as well as renewable energy services. Whitman continues to grow into new and diverse markets, providing expertise to the private and public sectors, including all levels of federal, state and local governments, as well as a variety of public authorities.

For more information on Whitman please call 732-390-5858 or visit www.whitmanco.com.

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