

Short Course:

Innovation in Grouting: The Developments 2000-2005

Coordinated by:

Donald A. Bruce, *Geosystems, L.P.*

- AGENDA -

PERMEATION GROUTING

- Principles
- Applicability
- Grouting parameters
- Monitoring and control
- QA/QC

GROUTING FOR KARST

- Investigation for design of grouting in karst
- Function of grouts in karst
- Stabilization techniques
- Limited mobility grouting approaches
- Performance evaluation in karst

ROCK GROUTING AND COMPUTERS

- The old way of grouting
- The new way of grouting
 - Quantitative design
 - Stable grouts
 - Computer monitoring
- State of the art in computer monitoring technology
- Alternative procurement methods

JET GROUTING

- History
- Methods/Systems (single, double, and triple fluid)
- Range of jet grout element properties (diameters and strengths)
- Practical applications
- Specifications

COMPACTION GROUTING AND ULTRAFINES

- Principles
- Applications
- Equipment Requirements
- Project Planning and Execution
- Grouting Parameters

DRILLING

- Systems, methods, and applicability
- Equipment
- Circulation type and application
- Borehole deviation
- Recording of drilling progress and parameters
- Specifications

CRISIS MANAGEMENT

- Fundamental elements of solutions to catastrophic flows
- Basic construction considerations for grouted cut offs
- Recent examples

SPECIAL CASE HISTORIES

- Applications of ground stabilization
- Groundwater control projects
- Settlement control and underpinning in situ
- Unusual applications of grouting

When: Sunday January 23, 2005

Where: Hilton Austin
500 East 4th Street
Austin, TX 78701

Registration fee: \$300.00
per person
Special registration fee for full-
Conference registrants: \$ 50.00
per person

- Registration includes refreshments, lunch, handouts
- Participants receive 7 PDHs

<http://www.asce.org/conferences/geofrontiers05/>

ABOUT THE COURSE

This short course will address the tremendous advances in the techniques, materials, and methods used in the variety of ground treatment techniques. The course will provide an update to practicing professionals who already have experience in the field. Special emphasis will be placed on the outcome of the 2003 New Orleans Grouting conference. Subjects will include drilling, chemical grouts, low mobility grouting (LMG) for karst, rock grouting and the use of computer-controlled grouting operations, jet grouting, crisis management techniques, and special case histories.

ABOUT THE INSTRUCTORS

Richard M. Berry, Chairman, Rembco Engineering – Grouting engineering consultant with over 38 years of experience in the fields of soil modification, grouting, slope stabilization, micropiles, soil nailing, anchoring, and concrete repair. Member of the Geo-Institute Grouting Committee.

George K. Burke, P.E., Vice President – Engineering, Hayward Baker, Inc. – Principal Engineer for specialty geotechnical contractor implementing all types of grouting and ground improvement technologies, with over 25 years experience in the fields of chemical, compaction, fracture, and jet grouting. Member of the Geo-Institute Grouting and Ground Improvement Committees.

Michael J. Byle, P.E., Chief Geotechnical Engineer, Schoor DePalma – specialty geotechnical consultant with over 25 years of experience in ground improvement, grouting, karst and foundation remediation. Served as Chair of the Geo-Institute Committee on Grouting from 1997-2000 and Chair of Grouting and Ground Treatment 2003

Trent L. Dreese, P.E., Senior Associate, Gannett Fleming, Inc. – consultant with over 15 years of experience in the field of dam design and construction with special emphasis on seepage control measures including grouted cutoffs. Member of Geo-Institute Grouting Committee.

Thomas M. Hurley, District Manager, Layne GeoConstruction – heavy/special geotechnical construction contractor with over 15 years of experience, and Jet Grouting Sub-Committee Chairman for the Geo-Institute Grouting Committee.

James Warner, Consulting Engineer - independent consultant with over 20 years of contracting experience and 25 years of consulting experience in the grouting field worldwide. An ASCE "Grouting Great" and member of the Geo-Institute Grouting Committee.

Donald A. Bruce, Ph.D., C.Eng., L.G., L.E.G., President, Geosystems, L.P. – specialty geotechnical construction consultant and expert witness with over 25 years experience in the fields of drilling, grouting, ground anchors, micropiles, deep mixing, and soil nailing, and Chairman of the Geo-Institute Grouting Committee.

ABOUT THE SPONSOR

This short course is sponsored by the Geo-Institute Grouting Committee. This committee mainly consists of practitioners (contractors, consultants, academicians, regulators, and suppliers), and its activities are ranging and “cutting edge” relative to the perceived needs of industry. Within the general vision of the Geo-Institute, the Committee has adopted the following mission statement: “In order to increase the quality of grouting projects and to foster the continuing development of grouting technology, the Committee will collect and retain technical and practical knowledge from the grouting industry specialists and widely distribute that knowledge to end-users and consumers through guideline documents, seminars and short courses, conferences and appropriate electronic media. The Committee will actively liaise with its counterparts both in the Geo-Institute and in other organizations.” Our Committee operates internally via a number of task-specific subcommittees, but wherever possible acts as one group in its participation in external events, e.g., short courses, conferences.