



ASSOCIATION OF ENGINEERING GEOLOGISTS

"Serving Professionals in Engineering, Environmental, and Ground-Water Geology"

THE ROCKY MOUNTAIN SECTION NEWSLETTER

www.aegrms.org

MEETING DATE

**THURSDAY
MAY 13, 2004**

TIME

5:45 p.m. Social Hour
6:30 p.m. Dinner
7:30 p.m. Presentation

LOCATION

**BERTHOUD HALL
2nd Floor**

Colorado School of Mines
Golden, CO
See map below

COST

\$20 Members
\$22 Non-members
Free for Students first
time, \$10 then after

RESERVATIONS

c/o AEG Reservation Line
(303) 790-2161 x 243 or
meetings@aegrms.org
**BY NOON, TUESDAY
MAY 11th**

Yule Quarry – Current Operations

By Mr. Rex Loesby of the Yule Quarry

The Colorado Yule Marble Quarry produces one of the finest white marbles in the world. It operated from 1905 to 1941, during which time it produced the stone for the exterior of the Lincoln Memorial and the Tomb of the Unknowns in Washington, DC. The quarry reopened in 1990. Recently, the Department of the Army approved the replacement of the Tomb of the Unknowns with a new stone from the quarry. The Tomb block is very large and will require special efforts to perform the task. The replacement of the Tomb, and where the Yule Quarry fits in the international stone business, will be discussed.

A field trip to the quarry is planned for Saturday, June 19. We will meet in Marble at 1:30 pm. Carpools can be arranged and families are invited. Further arrangements will be discussed at the meeting. If you are unable to attend the meeting, but wish to attend the field trip, please contact Darin after the next meeting.

Webmaster Wanted!

Ed Friend is retiring as webmaster. We are in need of a willing and able body to fill the position. Everything is set-up with the website, so the commitment level would be a few hours a month updating the site. Please contact Ed Friend at webmaster@aegrms.org, Kristi McQuiddy at newsletter@aegrms.org, or Darin Duran at chair@aegrms.org if you are interested or have questions. We would like to get someone lined up in the next month or so before Ed heads out to the field.

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303.220.0300

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Kristi McQuiddy,
GEI Consultants, Inc.,
303.662.0100
newsletter@aeqrms.org

Website

Ed Friend,
GEI Consultants, Inc.,
303.662.0100
webmaster@aeqrms.org

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Jim Wright,
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303.662.0100
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www.aeqrms.org

Words from the Chair

This is the last meeting of the season and it should be a good one. Mr. Rex Loesby of the Yule Quarry will give a presentation on the current operations. This will be a precursor to a field trip we have planned to the Yule Quarry in Marble, Colorado. The field trip will be an opportunity for the entire family to visit this famous location.

The meetings since we have hosted the annual meeting have been well attended which is a testament to the strength of our section. I hope that the Rocky Mountain Section can show the rest of the sections of AEG our strength and commitment to the profession by attending the next annual meeting in Dearborn, Michigan. A brief PowerPoint presentation showing the highlights of the meeting will be given at the May meeting.

By the time you receive this newsletter, the mid-year board meeting will be complete. I will have a full update on the meeting and the current happenings at national level. Hope to see you all there.

RSVP – PLEASE!!!

The turnouts for the monthly meetings have been great, however last month we had 28 people RSVP to attend, yet 38 walked in the door. The numbers are great, but this caused a problem with lack of food and utensils. We want people to attend, but please let us know so we can have enough food, and heaven forbid, enough beer.

Your Business Card Here

The section is looking for companies or individuals who would like to advertise their products or services in the section newsletter and on the website. This is anything from a business card (\$10/month), quarter page spread (\$20/month), to a half page exposition (\$40/month). If you are interested, contact Ed Friend webmaster@aeqrms.org or Kristi McQuiddy newsletter@aeqrms.org.

Soil Stratigraphy for Trench Logging Continuing Education Course

The Great Basin Section of AEG is hosting "Soil Stratigraphy for Trench Logging" - a continuing education course in cooperation with the Basin and Range Province Seismic Hazards Summit II.

The course will be held May 20-21 at the John Ascuaga's Nugget in Sparks, Nevada. For more information see the attached brochure or contact Dave Sullivan at 775-827-6111 or dave@greatbasinaeg.com.

An Engineering Geologist's Experiences by Charles Robinson

In 1980, Charles S. Robinson and Associates merged with Converse-Ward-Davis-Dixon of Pasadena, CA. The firm had grown to ten personnel and I was spending all my time doing administration and not geology. I hoped to return to professional work and leave the administration to a new manager, Jack Burk. By 1981 business had dropped off significantly - the Interstate Highway system in Colorado had been about completed and the mining companies went into recession. In late 1981, I "retired", hoping to save the company my salary so they might survive. It didn't work. In 1982, Converse-Ward-Davis-Dixon closed the Denver office. I remodeled a tenant house at my home into an office and returned to consulting under an old company, Mineral Systems, Inc. I was kept busy primarily out of state on mining and engineering geology projects, and my son Charlie came to work for me full time. Over the next five years we did several studies for Thomas E. Summerlee & Associates of Colorado Springs, flood control, slope stability, and environmental geologic studies for La Contra, Ltd. of Arvada, many coal-mine subsidence aggregate resource studies and numerous water wells in the mountains and on the plains.

The most significant project between 1982 and 1984 was for DMJM-Phillips-Reister-Haley, Inc. on the post tensioning of Barker Dam in Boulder, CO. In discussion with the design engineers, we convince them a rock mechanics study could reduce the cost. I didn't think the Federal Energy Resource Commission (FERC) would buy the study (it isn't in the Bureau of Reclamation's Small Dam Handbook), but they did. We made a detailed geologic map of the dam area, with an emphasis on the structure, drilled three holes for core and submitted samples of the core for dynamic testing. We were assisted by Alan Moss of Stephen-Robertson-Kirsten, Inc. As a result, the strength of the rock was incorporated into the final design. We were then retained to supervise the installation of the post-tension anchors. It was reported to us, that as a result of our work, the cost

was 41% below the originally estimated cost (Robinson, C.S., Moss, A.S.K., Tolle, J.E., and Noble, H., Jr., Barker Dam Stabilization: Proceedings of the International Conference on in situ soil and rock reinforcement, Paris October 9-11th, 1984).

In Colorado, investigation of landslides and potential slope stability occupied much of our work from 1985-2000. These included the landslide of the Telluride Airport, San Miguel County; Mountain Terrace Townhome failure, Eagle County; Aspen Mountain slope failure, Pitkin County; a huge landslide, the Leche Creek landslide in Conejos County; and the Woodstone Apartment landslide in Colorado Springs. More than half our work during this time was out of state. This included engineering and environmental geology related to mine development, dams, and groundwater, in Washington, California, and Arizona.

I'm still at it, but I don't try to promote work any more. A few old clients ask me for help now and then - but most of my old clients have died or retired. I keep busy now with some mineral exploration.

Charles S. Robinson, Ph.D., P.E.

Note: We will still be looking for individuals to provide their knowledge and experience to the AEG-RMS community through case histories and articles of interest next year (beginning in September). Please contact Kristi McQuiddy at newsletter@agrms.org.

Aspiring Employees

Many resumes from students graduating in the very near future have been received. Employers, please contact Tim Petz for information regarding potential employees for summer part-time or full-time work. Students can drop off your information with Tim at the meetings or via e-mail.

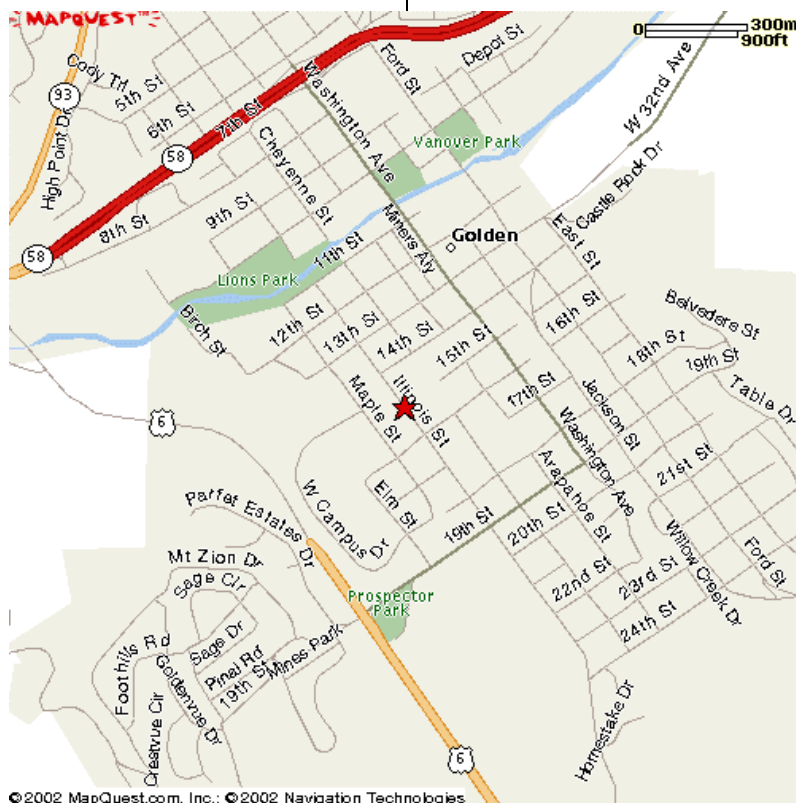
Parting Words

Another successful AEGRMS season has come to a close. The final speaker for this year should be great with an interesting field trip to follow in June.

The meeting turnouts have been exceptional this year considering many members gave countless hours to make Vail the huge success it was.

This will be the last newsletter until September and we are not planning on any mailing this summer. There may be an occasional e-mail, but it should be a quite summer on the AEGRMS front. Have a great summer!

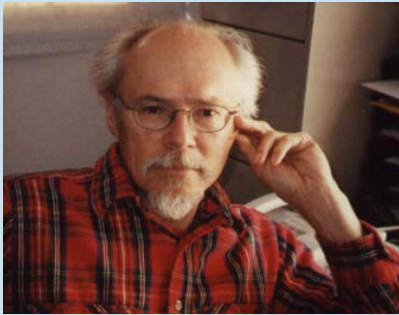
The Editors
Kristi McQuiddy
Ed Friend



COLORADO SCHOOL OF MINES – BERTHOUD HALL
1516 Illinois St.
Golden, CO 80401

Course Description

Students will learn how to improve their logs and descriptions of soils uncovered during seismic trenching.



Dr. Glenn Borchardt, Ph.D.

Soil Stratigrapher / Earthquake Hazard Specialist

Dr. Borchardt is the Principal Soil Scientist for Soil Tectonics, located in Berkeley, California. Dr. Borchardt has a Ph.D. in Soil Mineralogy from Oregon State University, a M.S. in Clay Mineralogy from the University of Wisconsin, and a B.S. in Soil Science from the University of Wisconsin. Additionally, Dr. Borchardt is a Certified Professional Soil Scientist.



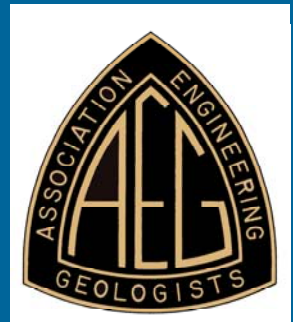
Lumos and Associates, Inc.
5401 Longley Lane Suite #5
Reno, Nevada 89511

Association of Engineering Geologists
Great Basin Section

Association of
Engineering
Geologists
Great Basin Section

Soil Stratigraphy for Trench Logging

A Continuing Education
Course in Cooperation with
the Basin and Range Province
Seismic Hazards Summit II

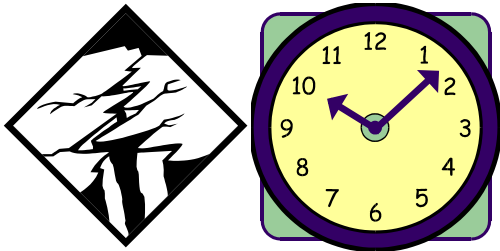


Date: May 20-21, 2004
Time: 8:00am to 5pm
John Ascuaga's Nugget
Sparks, Nevada

Soil Tectonics

Interactions Between Soils and Faults

Soil tectonics is the study of the interaction between soil formation and tectonism. It is a branch of both paleoseismology (the study of prehistoric earthquakes—especially their location, timing and size) and pedology (the study of soils). The complex interactions involving these dynamic processes may record a history of fault offset and other ground movements that can be discovered in no other way. The formation and alteration of minerals in the soil act as timekeepers in recording these interactions. Although there has been some research involving other types of ground movement, such as landsliding and subsidence, due to fluid withdrawal, most soil tectonics work involves analysis of seismic hazard due to fault offset.



'I took this short course at the AEG national meeting, and it was real eye-opener. Glenn is an excellent teacher.'

-Eric Hubbard, CEG, Kleinfelder

Also attend the **Basin and Range Province Seismic Hazards Summit II**—May 16-19, 2004. Go the following link for information: <http://www.nbmng.unr.edu/meetings.htm>

Topics To Be Discussed:

- ABCs of soils: Soil-horizons from simple to complex
- CT POT: the factors of soil formation
- Climate: How water improves rocks
- Topography: How gravity helps water improve rocks
- Parent material: How rocks control soils
- Organisms: Construction and destruction in soils
- Pedochronology: Perspective and bookkeeping for the ages
- Relative dating methods: Chronosequences
- Absolute dating methods: U/Th, C-14, and others
- Laboratory methods: PSD and soil mineralogy
- Recognizing important soil features: Tongues, krotovinas, calcite filaments, nodules, clay films, manganese oxide coatings, artifacts, pressure faces, creep faces, slickensides, fossil fissures
- Soil Tectonics: What faults do to soils; what soils do to faults

Information:

Location: John Ascuaga's Nugget, Sparks, NV

Date: Thursday, May 20, 2004 (Lecture)

Friday, May 21, 2004 (Field Trip)

Time: 8:am to 5pm

Cost: \$325

Provided: Text, Lunch (both days), and Transportation (for the field trip—Note, you may drive personal high-clearance vehicle if desired)

Bring: Thursday—Typical classroom supplies and attire.

Friday—Typical field supplies and attire.

Certificate: Earn 1.2 CEU's (1 CEU=10 PDH's)

Registration Soil Stratigraphy for Trench Logging

Enrollment: Phone, Fax, or Mail your registration. Enrollment closes on May 14, 2004 or when full. Please Pay in advance. Make check payable to "Great Basin AEG."

Confirmation will be by email or fax if requested.

Cancellations must be made prior to May 14, 2004. No refunds will be made after May 14, 2004.

Fee: \$325

I will be driving my own high clearance vehicle to the field trip.

Yes
 No

I need confirmation.

Yes
 No

Comments:

Name

Address

Phone

Fax

Email

Association of Engineering
Geologists
Great Basin Section

Lumos and Associates, Inc.
5401 Longley Lane Suite #5
Reno, Nevada 89511
Phone: 775-827-6111
Fax: 775-827-6122
Email: dave@greatbasinaeg.com

Contact person:
Dave Sullivan
775-827-6111