

# Association of Engineering Geologists

## Southern California Section

### NEWSLETTER- February 1992



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12 Issues/year-\$25 to "AEG"  
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c/o Leighton & Associates  
1470 S. Valley Vista Dr. #150  
Diamond Bar, CA 91765

2550 Beverly Blvd.  
Los Angeles, CA 90057

#### Dinner Meeting *Tuesday February 11th*

- The Quiet Cannon Restaurant  
901 North Via San Clemente  
Montebello
- Cost - \$20.00 (Full-Time Students - **Free**)
- Make reservations by Friday February 7th!!!**  
URS Consultants (Dottie) 310-983-6800  
(Leave Your Name & Number of People in Your Party)
- 5:30 Social Hour
- 6:45 Dinner
- 8:00 Program

## Program

### The Murrieta Creek Fault, A New Branch of the Elsinore Fault, Rancho California Area

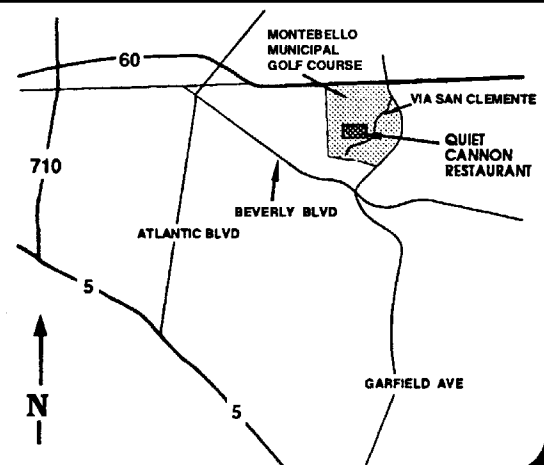
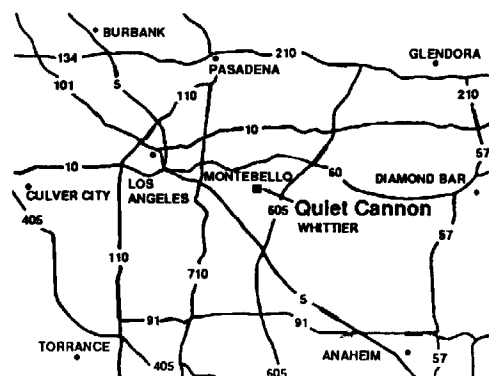
Mark C. Bergmann, Leighton and Associates

and

### State of the Association of Engineering Geologists

Steve Garrison, President of AEG

#### MAP to Meeting



# PROGRAM

## Topics & Speakers

### The Murrieta Creek Fault, A New Branch of the Elsinore Fault, Rancho California Area, Riverside County, California

Mark C. Bergmann, Leighton & Assoc., Inland Empire Office Director of Geology  
and

State of the Association of Engineering Geologists

Steve Garrison, President of AEG

The Elsinore Valley is continuing to be developed as an urban link between the San Diego and Los Angeles areas. This is not surprising as the area was historically used as the major trade route between San Diego and Riverside/San Bernardino areas. The Elsinore area faults along the valley pose problems related to the siting of developments and the potential for ground-water withdrawals activating earthquakes and ground ruptures.

The Murrieta Creek Fault is a newly named active fault associated with the Elsinore Fault Zone. It is located along the southwestern margin of Temecula Valley, northwest of Cherry Street, in Riverside County. Dr. Tom Rockwell, from San Diego State U., and Mark Bergmann undertook a field program to identify the potential seismic activity of this fault. Initial trenching and drilling indicated 15.5 m of predominantly dip-slip offset within Holocene time. Correlative (+) organic-rich layers on each side of the fault have produced radiocarbon dates of 12,670 + 180 years BP and 12,140 + 150 years BP, respectively. Numerous trenches excavated along the strike reveal that the fault diverges into several splays. Individual splays indicate relative dip-slip, strike-slip, or oblique-slip displacements as determined by the orientation of striae on slickensides. Using 15.5 m of offset and radiocarbon results averaging 12,405 years BP the dip-slip rate is 1.25 + mm/yr. Dip-slip displacements of 40 cm on the A horizon and 75 cm on an apparently thickened B-1 unit suggests multiple large events. The displacement per event divided into the approximate slip rate, produces an average recurrence interval of 440 years + 160 years (280-600 years for the lapse time between significant displacements).

Ground fissures, a recent phenomenon in the Rancho California area, were observed to be coincident with the Murrieta Creek Fault. These ground fissures generally parallel the trace of the observed fault, and are typically located in a 3 m to 12 m wide zone from the fault trace into the adjacent graben. Ground fissuring and valley subsidence are believed to be caused by pumping of ground water from valley sediments.

The Murrieta Creek Fault, valley subsidence, and ground cracks coincident with the fault trace(s) will require careful evaluation of all faults in the Elsinore Trough which may be reactivated by ground water withdrawal. Details of the results of the field investigation in the above description was taken from an abstract provided by Mr. Bergmann and co-authored by Dr. Rockwell. Mr. Bergmann will describe the conduct and results of the study at the meeting. The Elsinore Fault Zone will undoubtedly receive additional attention as our population continues to develop homes and industries in this area.

Mr. Bergmann has over 13 years of experience in many aspects of engineering geologic studies ranging from site feasibility through planning, design and construction phases. He has conducted site-specific geologic investigations and inspections for large industrial and commercial structures, large hillside residential developments, active landslides and faults, environmental impact reports, and resource potential evaluations. He is currently the Director of Geology for Leighton & Associates' Inland Empire Office in Temecula.

#### **STEVE GARRISON, AEG PRESIDENT**

will be a special guest of the February meeting. He will give a brief presentation on the state of the Association, and will be available for questions.

## **PROGRESS ON THE PHOTO DIRECTORY**

The photo directory of AEG Southern California Section members and associate members is presently being compiled. A total of 100 out of 450 photos of members have been collected, computer scanned, edited and placed in a computer database. The goal to complete this first edition of the photo directory is planned for April 1992. To retain a measure of privacy it is intended that only the names and photos of members will be listed in the directory.

You probably noticed a small version of your photo image to the left of your name on your mailing label. Alternatively, you have an outline of a head and shoulders that indicates you do not have a photo currently placed in the database. This format of the mailing label will be used for the next few months to allow you to decide whether the image is one that you want in the database. If you don't like the present photo image, please send a note and/or feel free to provide another photo to Tania Gonzalez. Her address is on the front of the newsletter.

### **Quality Control for the Photo Directory**

Putting together the photo directory is an interesting project. Use of photographic images in computers is becoming more common and less expensive. The continually improved hardware and image editing software are becoming more amazing every day. It is impressive how good the output is from some of the printers. Therefore, for the directory to have a good start on quality it is important that the original photo to be scanned have good quality. For photographic images, the more detail the better. For example, some of the photos presently scanned in the directory ranged in size from postage-stamp-size to 4" by 5"-size. If scanned at the same resolution of 400 dots per inch, more information is obviously available from the detail of the larger photo. The "best size" photo for the directory is one that shows about 4 square inches for the head. A passport-size photo (~1 square inch for the head) is good, but the photos in the directory will be printed about twice this size.

Depending upon its popularity the photo directory will be updated and printed annually.

### **Awards for the Best Photos**

A \$25.00 first prize and a \$10.00 second prize for the members with the best photos in the directory will be awarded in May as an incentive for members to submit photos as soon as possible. If it is inconvenient for you to provide a photo, Kelly Rowe will be glad to take your photo at the monthly meetings. Alternatively, if you have a good photo of yourself that you would allow to be borrowed, for enough time to be scanned and put in the database, please do so. It will be returned to you promptly. Good luck on winning the prize.

## **ANNUAL AEG MEETING 1992 WE NEED YOUR HELP!**

The committee is soliciting start-up contributions from engineering geology and geotechnical consulting firms in the Southern California area. Three levels of sponsorship are planned: Gold - \$1,000 contribution, Silver - \$500 contribution, and Bronze - \$250 contribution. All sponsors will receive recognition in the section newsletter, the meeting bulletin, and posters at the meeting. Sponsors at the \$500 level will receive a framed, signed, numbered print of the artist gift which will be given to all registrants. Sponsors at the \$1,000 level will receive the signed print and special recognition at the awards dinner. We are happy to accept a contribution of any amount to help with initial fundings. And, if things get better, you can always up your contribution!

### **AEG 1992 DONATION LIST**

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**Contributions to Date: \$6,450.00  
THANK YOU ONE AND ALL**

# BOOK SALE

## Association of Engineering Geologists, Southern California Section

- Blake, T., and Larson, R.A., Eds., 1991, Engineering Geology along the Simi-Santa Rosa fault system and adjacent areas, Simi Valley to Camarillo, Ventura County, California: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, August 24, 1991, volumes 1 and 2, 383 pgs., 4 map sheets. **\$40.00**
- Buckley, C.I., and Larson, R.A., Eds., 1990, Geology and Engineering Geology of the western Soledad Basin, Los Angeles County, California: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, November 3, 1990, 185 pgs., 2 map sheets. **\$25.00**
- Cann, L., and Steiner, E., Eds., 1989, Engineering Geology along Coastal Orange County: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, September 23, 1989, 207 pgs. **\$20.00**
- Lamar, D.L., Ed., 1978, Geologic Guide and Engineering Geology Case Histories, Los Angeles Metropolitan Area: Guidebook for the Southern California Section of the Association of Engineering Geologists, First Annual California Section Conference, May 12-14, 1978, 174 pgs. **\$16.00**
- Stout, M.L., Ed., 1976, Geologic Guide to the San Bernardino Mountains, Southern California: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, May 22, 1976, 114 pgs. **\$11.00**
- Byer, J.W., Ed., 1975, Sycamore Canyon Fault, Verdugo Fault, York Boulevard Fault, Raymond Fault, and Sierra Madre Fault Zone: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, September 27, 1975, 68 pgs. **\$ 8.00**
- Buesch, D., Ed., 1979, Geomorphic Applications in Engineering Geology: A State-of-the-Art Short Course: Short course held at California State University at Los Angeles, November 10-11, 1979, reprinted by the Southern California Section of the Association of Engineering Geologists, 145 pgs. **\$11.00**
- City of Los Angeles, 1982, Geologic Maps of the Santa Monica Mountains, Los Angeles, California: 333 map sheets at 1" = 400', compiled by the Bureau of Engineering, Department of Public Works, City of Los Angeles, reprinted by the Southern California Section of the Association of Engineering Geologists, 342 pgs. **\$26.00**

**Books are available from:** Joe Cota, Publications Chairman, AEG Southern California Section, c/o GeoSoils, Inc., 6634 Valjean Avenue, Van Nuys, California 91406, (818) 785-2158. Make checks payable to AEG Southern California Section. **Please add 8.25% sales tax and the following postage/handling charges:** \$2.50 for the first book and \$0.50 for each additional book.

### SECTION COMMITTEE CHAIRS

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## Positions Available

Ads in this section are welcome at no cost.

### Career Opportunity for an Engineering Geologist

The City of Los Angeles has an opening for an engineering geologist. Responsibilities include: analyzes and determines the adequacy of geological reports and recommendations pertaining to soil contamination; prepares and conducts training in the geological aspects of enforcement of underground tank regulations; assists with site assessments and soils remediation report reviews and approvals; acts as liaison with other governmental agencies regarding proposed new legislation, procedures and standards in site assessments and other matters. Requires certification as an Engineering Geologist with the California Board of Registration for Geologists and Geophysicists upon employment. Salary: \$3,575-\$5,223 monthly. Submit applications to:

**Personnel Department**  
City Hall South  
111 East First Street, Room 100  
Los Angeles, California 90012  
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### Immediate Opening for a Registered Geologist

Ecology Control Industries, a stable, growing Environmental Services company, has an immediate Management position open for a Registered Geologist. The successful candidate will supervise and prepare Phase I, II and III site assessments and other environmental surveys.

Please submit resumes to:

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For further information contact:  
Mr. Ken Smith, General Manager, or  
Ms. Heather Harralson, Office Supervisor  
(213) 427-4482

### The Geological Society of America Congressional Science Fellowship

Beginning September 1992, GSA will sponsor one earth scientist to serve a one-year term in the office of a Congressional committee or as a U.S. House or Senate member. The Fellow's responsibilities will be to advise on a wide range of scientific issues related to public policy. Fellows perform in much the same way as regular staff members; they have the opportunity to be involved in varied legislative, oversight and investigative activities. They offer their special knowledge, skills and competence for the opportunity to acquire experience and the chance to contribute to the formulation of national policy.

The program is open to highly qualified earth scientists in early or mid-career. The position will require the ability to work well with people from diverse professional backgrounds, and to be articulate and flexible in fulfilling a broad range of assignments. The fellowship carries with it a \$38,000 stipend, plus limited allowances for health insurance, travel and relocation. The program is funded by GSA and by a grant from the U.S. Geological Survey. The deadline for receiving applications for the fellowship is February 15, 1992. Procedures for application and detailed requirements are available in the geology departments of most colleges and universities in the United States, and upon request from:

**Executive Director, Geological Society of America,**  
P.O. Box 9140  
Boulder, Colorado 80301

### Career Opportunities for Mid-level Geotechnical an/or Environmental Geologists and Engineers

Converse Consultants, a leading geotechnical, Environmental and Materials Engineering firm in California is presently interviewing for Project and Senior level geologists and engineers for the Inland Empire office, located in San Bernardino, California.

The positions require a minimum of 4 to 5 years of individual or combined experience in the Geotechnical or Environmental Engineering consulting field. Applicants should have BS degree in geology, geohydrology, civil engineering or related discipline. Written and verbal communications are mandatory and registration is preferred (RG/CEG/RCE/GE). Qualified candidates should submit resumes in confidence to:

**Converse Consultants**  
630 E. Brier Drive, Suite 100  
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Attention: David Simon

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## Seminars/Meetings/Field Trips

### FEBRUARY 1992

**10-14 Sixth International Symposium on Landslides**, in Christchurch, New Zealand. The symposium is co-sponsored by the International Society for Soil Mechanics and Foundation Engineers, and the International Association of Engineering Geologists. **CONTACT:** David H. Bell, Geology Department, University of Canterbury, Christchurch, New Zealand, Phone: (64-3) 642-717 or 677-001. FAX: (64-3) 642-999.

**18-21 Earth Remote Sensing Short Course**, in Los Angeles, presented by the Department of Business, Engineering and Management of the UCLA Extension Program. **CONTACT:** For technical information: David L. Glackin at (213) 336-8735, for registration information: Short Course Program Office at (213) 825-3344.

### MARCH 1992

**2-6 Short course on Fundamentals of Deep Foundations, Analysis, Design, Testing and Inspection**, in Cocoa Beach, Florida. Presented by the University of Missouri-Rolla Civil Engineering Continuing Education. **CONTACT:** Norma R. Fleming, U. of Missouri-Rolla, Rolla, MO 65401-0249, 1-800-752-5057 or 314-341-4200.

**25-29 Second Conference on Earthquake Hazards in the San Francisco Bay Area**, in Hayward, California. **CONTACT:** Dr. Sue Hirschfeld, Department of Geological Sciences, California State University, Hayward, CA 94542-3088, (510) 881-3486.

### APRIL 1992

**29-May 1 1992 Pacific Section Convention AAPG-SEPM-SEG-EMD**, in Sacramento, California. Theme for the convention is "Creative Approaches to Environmentally Sound Exploration". **CONTACT:** Rich Boyd, General Chairman, Capitol Oil Corporation, 1545 River Park Drive, #501, Sacramento, CA 95815, (916) 929-4141.

Tania Gonzalez  
AEG Secretary/Newsletter Editor  
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