



Association of Environmental and Engineering Geologists
California Central Coast Chapter, Southern California Section

www.aegsc.org/chapters/centralcoast

Robert J. Urban, Chapter President
William "Bill" Tracy, Chapter Vice President

Vacant, Chapter Treasurer
Jim Steele, Chapter Secretary

OCTOBER 2006 MEETING NOTICE

**ENVIRONMENTAL FORENSICS:
PETROLEUM FUELS**

by
Dr. Alan Jeffrey
ZymaX Forensics/DPRA

Wednesday, October 25, 2006

Rusty's Pizza, Goleta
(RSVP/Directions below)

6:00 pm- 7:00 pm Social Hour
7:00 pm – 8:00 pm Chapter Meeting

The October meeting is sponsored by:



Speaker:
Alan Jeffrey, PhD

Speakers' Brief Biography:
Dr. Alan Jeffrey is Senior Geochemist at DPRA/Zymax Forensics in San Luis Obispo, California. Dr. Jeffrey received his

PhD in Chemical Oceanography from Texas A&M University for research using stable isotope ratios to determine the origin of natural gas. He has over 20 years of U.S. and international experience in environmental and petroleum geochemistry. Much of his work has focused on the use of geochemical techniques to solve environmental problems, including sources of spilled hydrocarbon fuels and fugitive methane seeps. alanj@zymaxusa.com

Abstract

ENVIRONMENTAL FORENSICS: Petroleum Fuels

Alan Jeffrey, Ph.D
ZymaX Forensics/DPRA
71 Zaca Lane, San Luis Obispo, CA 93401
phone 805.544.4696 fax 805.544.8226

Petroleum contamination, ranging from natural gas to heavy petroleum fuels, is frequently encountered in surface and subsurface soils and water. Responsibility for disposing of the hydrocarbons is often a contentious issue and relies on legally defensible identification of the source of the hydrocarbons. In some cases, such as recent surface fuel spills, the fuel type and its source may be readily ascertained from the site history. In other cases, particularly with subsurface plumes, identifying the source is more difficult. Spilled hydrocarbons are subject to evaporation, water dissolution, and biodegradation, all of which alter the composition, and complicate the identification of fuel types. Identification is further complicated by co-mingling of fuels of different types, or similar fuels released at different times.

EPA analytical methodology is often used to identify and quantify hydrocarbon contamination in soil and water. This methodology provides only limited information on the hydrocarbon fuels in a sample, and can even lead to misidentification of fuels. More detailed geochemical techniques such as high resolution GC, GC/MS, and stable isotope analysis can be used to identify chemical and isotopic fingerprints of fuels in a sample. GC/MS and isotopic analysis are useful in biodegraded samples where the GC fingerprints are featureless because of loss of the normally dominant n-alkanes. These forensic geochemical techniques provide a more reliable method for identifying spilled hydrocarbons, and can also be used to estimate the relative amounts of different fuels in a mixture. These techniques can also be used to assess the degree of alteration of spilled hydrocarbons, and from this and site information, an estimate of the length of time the source fuel has been in the environment may be made. Other age dating techniques involve analysis of additives in gasoline free products, and comparing this with the documented use of the additives in gasoline over time.

Fugitive methane occurrences are a growing problem in housing developments in Southern California. Stable isotope ratios are particularly useful for identifying the source of leaking hydrocarbon gas such as petroleum gas from leaking pipelines or gas reservoirs, and landfill gas.

Case studies will be described which illustrate how these techniques have been used to fingerprint gasoline, diesel, and heavy oil spills to determine the source of the spill.

Chapter President Message

Greetings CA Central Coast Chapter:

At our September meeting, volunteers were solicited for Chapter officer positions. I will be volunteering for another year as your Chapter President, Bill Tracy will serve another year as Chapter Vice President, and the newest addition to the team includes Jim Steele, who is volunteering as the Chapter Secretary. We look forward to providing you with an enriching AEG program for the following year.

The Chapter is still seeking a Chapter Treasurer. This would require about two to three hours a month of your time. Volunteers are welcome!

Along with the Chapter's change in officers, our Section leader's will be changing. Our Chapter thanks our Section leaders for keeping our Section and Chapter informed of relevant events surrounding our profession. Thank you especially to Charles Nestle (Section Chair), Roz Munro (Section Treasurer), and Dr. Kerry Cato (Section and Chapters Webmaster). We look forward to the working with the upcoming Section Officers over the next year.

I look forward to seeing you at the upcoming meeting. However, if you can't make it, I wish you a happy yet ghoulish Halloween.

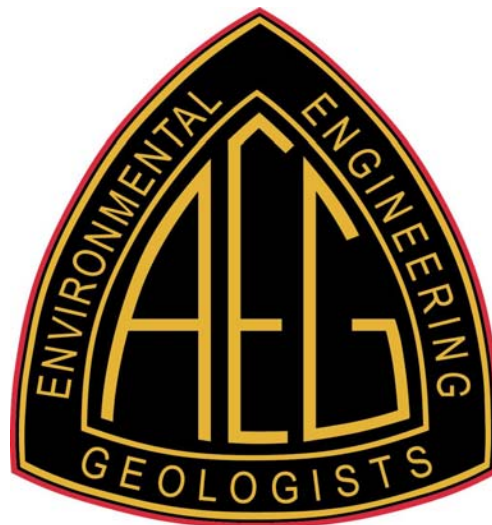
*Best of regards,
Robert J. Urban
Chapter President
AEG CA Central Coast Chapter*

Announcements

Please email announcements to lavapoet@verizon.net, thank you.



**HAPPY
HALLOWEEN!!!**



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS 49th ANNUAL MEETING

Northeast Engineering Geology: From Till to Fill

October 30 – November 4, 2006

**Boston Park Plaza Hotel
Boston, Massachusetts
Eleven Technical Sessions**

Highlights of the meeting include:

- Four Symposia
- A new and exciting interactive Poster Session
- Four Short Courses
- Four Field Trips
- Wonderful and Exciting Exhibitors

For more information and registration, please visit the 49th ANNUAL MEETING website at:

<http://www.aegweb.org/i4a/pages/Index.cfm?pageID=3836>

TOUR THE SEEPS

Join Venoco Inc. for a tour of the
Santa Barbara Channel



Learn more about the natural oil and gas seeps near Coal Oil Point. Venoco would like to give you a chance to view the "World's Most Spectacular Seeps." At Coal Oil Point it is estimated that 6,000 gallons of oil seeps into the ocean each day [up to 2.3 million gallons per year] as well as the 5,000,000 cubic feet of natural gas per day [up to 1.8 billion per year]. On going tours are available. To learn more about these seeps and schedule a tour, please call Karen Robertson-Fall at 805-745-2100 or go to the [Venoco](#) Internet site.

REG REVIEW COURSES OFFERED FOR CERTIFICATION LICENSES

REG REVIEW and the Association of Environmental and Engineering Geologists are pleased to announce the reinstatement of Exam Review Courses for the Certification Exams for Engineering Geology (CEG) and Hydrogeology (CHG). These courses will be held in Sacramento on November 4, 2006 and Santa Ana on November 5, 2006. The morning class from 8am to noon is devoted to the CEG and the afternoon class from 1pm to 5pm is for the CHG. The Courses individually are \$245 for AEG members, \$260 for nonmembers. If you take both together the total cost is \$485 for AEG members, \$500 for nonmembers. Preregistration deadline for the CEG and CHG courses is October 13, 2006.

The courses are taught by Patti Sutch, California RG 3949, CEG1641, and CHG

25, and Lisa Dirth, California RG 3951, CEG 1240, and North Carolina RG by ASBOG exam.

For specific information and registering for the courses as well as current information on study manuals, flash cards, and courses please visit REG REVIEW, Inc's website at <http://regreview.com>. To contact REG REVIEW Inc.: e-mail - regreview@aol.com, mailing address - 37 Rosewell Road, Bedford, NH 03110, telephone - East Coast call Lisa Dirth at 603-472-3050, (fax) 603-471-1969. West Coast (evenings) Patti Sutch at 916-456-4870.

8th Annual John J. Woolley Memorial Golf Tournament

The Coast Geological Society (Ventura) is hosting the **8th Annual John J. Woolley Memorial Golf Tournament** that will be held on Friday, **October 13, 2006**. Don't be scared to show off your golf skills because the event will take place on Friday the 13th. For further information, please check out the Coast Geological Society's website for the tournament at: <http://www.coastgeologicalsociety.org/golf.htm> At the website, you will find links for Signup and Sponsorship. Further inquiries or signups can be emailed to golf@coastgeologicalsociety.org

A flyer announcement is attached at the end of this newsletter.



Signal Hill, CA

Gregg Gregg Drilling and Testing, Inc. is pleased to announce its new Mile-Drilling Reward Program. Clients of Gregg Drilling and Testing who drill over 2 miles of boreholes in one year

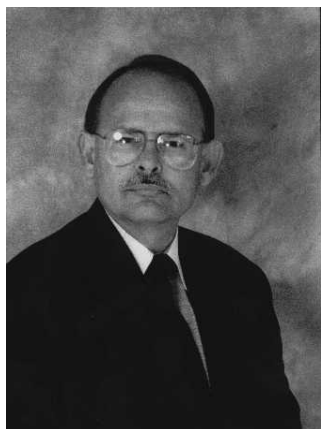
using either mud rotary or hollow stem auger receive a complete PLog™ package for free. For more information regarding Gregg Drilling & Testing, Inc. and the Mile-Drilling Reward Program, please visit:
www.greggdrilling.com

Please note that next April will be our 2nd Annual Student Night.

Student night involves two aspects of recognizing and supporting the future of our profession: (1) awarding a deserving student the Chapter's Dr. John W. Williams Scholarship and (2) listening to students present their research projects in the form of short (15 to 20 minute) presentations.

Applications for the Chapter scholarship will be posted on the Chapter website and distributed to regional universities and colleges in the near future. Last year, the scholarship was awarded in the amount of 500 dollars and may be increased this year. For further information or an application or to express your interest in delivering a presentation to the Chapter, contact the Chapter President.

AEG CA Central Coast Chapter Dr. John W. Williams Scholarship



Dr. John W. Williams is an active AEG member of the San Francisco Section, professor of engineering geology and Department Chair at San Jose State University (1976 – present), and former AEG National President (1988), secretary, and Vice President. Dr. Williams has served as the Association of State Boards of Geology (ASBOG) President and a founding Officer and President of the Engineering Geology Foundation (1996). In addition to acting as President for a number of additional organizations, Dr. Williams has served as Chair on: the Examination Committee for the California Board of Registration for Geologists and Geophysicists (1978-2000), the Ethics Committee for the ASBOG (2002 – present), and the Examination Committee for ASBOG (2002 – present). Dr. Williams acts as the advisor to the San Francisco Section Student Chapter and has throughout his career encouraged student membership and participation in AEG.

Dr. Williams has received numerous awards over the years of service to AEG and our profession. He has received the Floyd T. Johnston Service Award (1998) from AEG and the Meritorious Service Award (1992) from the Engineering Geology Division of the Geological Society of America.

Dr. Williams earned doctorate (1970) and masters of science (1968) degrees in geology from Stanford University and a bachelors of science (1967) degree in geology from the College of William and Mary, VA. Dr. Williams is a licensed Professional Geologist, Certified Hydrogeologist, and a Certified Engineering Geologist. He began his career working for the California Division of Mines and Geology (now the California Geological Survey) from 1971 through 1976 then became a professor at San Jose State University in 1976 and has continued teaching through the present. Many consulting geologists have received mentorship from Dr. Williams and even a greater number of geologists are aware of Dr. Williams bringing attention to the importance of ethics and ethics training to geo-professionals.

The CA Central Coast Chapter recognizes the important contributions of Dr. Williams to AEG and our profession. We hope that our scholarship brings awareness of Dr. Williams' contributions to future professional geologists.

To make a donation to the Dr. John W. Williams Scholarship fund, please contact Robert Urban at robert_urban@urscorp.com. All scholarship donors will be recognized on our Chapter's

website.

Last Month's Meeting

Julius Carstens, of Oilfield Environmental Compliance, presented information regarding analytical methods of total petroleum hydrocarbons (TPH). Mr. Carstens discussed how TPH analytical methods can be influenced by laboratory equipment and procedures.

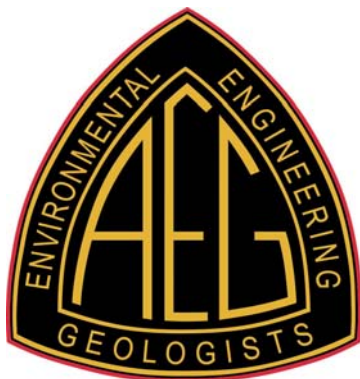
Upcoming Meetings

Interested in speaking to the Chapter?
Inquire with the Chapter President.

Upcoming meetings include:

November 29, 2006 meeting - Dr. Jonathan F. Clark (UC Santa Barbara) –
"Tracing recharge water from spreading ponds: Insights from a decade for studies"

December meeting – no meeting, enjoy the holidays



Chapter Sponsors



URS Corporation
130 Robin Hill Road, Suite 100
Santa Barbara, CA 93117
805.964.6010



MICHAEL F. HOOVER
Consulting Geologist • Hydrologist

Michael Hoover
Consulting Geologist – Hydrologist
Santa Barbara, CA
805.569.9670



STL

STL Los Angeles

1721 South Grand Avenue
Santa Ana, CA 92705
Phone: 714-258-8610
Fax: 714-258-0921
ATTN: Wendy Pierce



TETRA TECH, INC.

4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone: 805.681.3100
FAX: 805.681.3108

OEC has twice sponsored a Chapter meeting, thank you OEC!



OILFIELD ENVIRONMENTAL AND COMPLIANCE

Environmental, Laboratory and Geoprobe Services

307 ROEMER WAY, SUITE 300
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(661)762-914



71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401
805-544-4696
www.zymaxforensics.com

The Association of Environmental & Engineering Geologists CA Central Coast Chapter is currently seeking monthly meeting sponsorship. Benefits of becoming a monthly meeting sponsor include: 1) sponsor's name or logo placed on our Chapter website indicating the month of sponsorship, 2) listing as a Corporate Sponsor in our monthly newsletter, and 3) recognition at the monthly meeting. Our Chapter is asking for a donation of \$150 for becoming a monthly meeting sponsor . . . a small price for the recognition that you contribute to the professional society that best embodies our professional practice.

Directions to Meeting

Monthly Meetings

Monthly meetings will take place on the last Wednesday of every month at Rusty's Pizza in Goleta. Social hour begins at 6 pm; the meeting begins at 7pm.

For more information or to be added to the CA Central Coast Chapter email list, please contact Robert Urban via email at robert_urban@urscorp.com.

Location:

Rusty's Pizza, 270 Storke Road, Goleta (Santa Barbara)

Directions:

1. Driving Northbound or Southbound on Highway 101;
2. Exit on Storke Road;
3. Turn Left (if you were traveling northbound), Right (if you were traveling southbound);
4. Turn Left at the first stoplight past Hollister Road;
5. Rusty's is on the left.

Donation/Cost:

AEG members = \$15; non-AEG members = \$20; Students = \$5

Please: If you plan on attending the meeting, please email lavapoet@verizon.net a confirmation of your attendance by the Tuesday preceding the meeting date. This greatly helps in ordering the food for attendees. However, if you forget to email, please still do attend the meeting. Thank you.

JOB POSTINGS

If you would like to place a job announcement, please email the listing to lavapoet@verizon.net, thank you!



Lawson & Associates
Geotechnical Consulting, Inc.

Lawson & Associates Geotechnical Consulting, Inc.

2045 Royal Avenue, Ste. 125
Simi Valley, CA 93065

Tele: (805) 579-3434 Fax: (805) 579-3435

Email: kesmond@lgcgeo.com

Website: www.lgcgeo.com

LGC is looking for dynamic individuals to join our team and work on some of Orange, Los Angeles, Ventura, San Bernardino, Santa

Barbara and Kern Counties' most interesting and technically challenging projects. If you are an experienced geotechnical professional, or just starting your career, please do not hesitate to contact us. All inquiries will be considered in the utmost confidence. We look forward to hearing from you.

Lawson and Associates looking for Project Engineer

Work under the supervision of registered geotechnical engineer to perform field geotechnical investigations, analysis and design of shallow & deep foundation, seismic hazard assessments, liquefaction analysis, and static and pseudo-static slope stability analysis; prepare geotechnical reports; participate in inspecting existing engineering projects and formulating recommendation on project design improvements; present the engineering aspect of the project to clients and interact with clients on the technical parts of the projects.

Requirement: MS degree in Civil Engineering with specialization in Geotechnical Engineering.

Send resumes to 2045 Royal Avenue, Suite 125, Simi Valley, CA 93065



URS Corporation is seeking top professional geologists and graduating students for career positions at our Santa Barbara and Santa Maria offices. For further information, please contact Mr. David Bernal, PG by email at:

David.Bernal@urscorp.com

URS Corporation
130 Robin Hill Road, Suite 100
Santa Barbara, CA 93117
805.964.6010

COUNTY OF SANTA BARBARA

The Santa Barbara County Planning and Development Department is currently seeking a full-time engineering geologist to supervise and perform engineering geology work and to review plans for conformance with county ordinances dealing with soil and earth stability.

Registration as a professional engineering geologist in the State of California and a valid California Class C driver's license are required.

The salary range is \$69,139-\$84,406 approximately per year. The County also offers a generous benefits package that includes a \$4946/year benefit allowance.

With a mild climate and spectacular setting that includes scenic coastline, beautiful valleys, and rugged mountain peaks, Santa Barbara County is one of the most desirable places in the world to live and work.

To learn more about the position and to apply on line, visit www.sbcountyjobs.com, or call (805) 568-2800. This position is open until filled.

AEG CA Central Coast Chapter Contact Information

Chapter President

Robert J. Urban
URS Corporation
130 Robin Hill Lane, Suite 100
Santa Barbara, CA 93117
Phone: 805.964.6010
robert_urban@urscorp.com

Chapter Vice President

Bill Tracy
County of Santa Barbara
4415 Cathedral Oaks Blvd.
Santa Barbara, CA

Chapter Treasurer

VACANT

Chapter Secretary

James Steele
Tetra Tech, Inc.
4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone: 805.681.3100

Chapter Student Liaison

Garret Bean, Graduate Student
Department of Geological Sciences
University of California at Santa Barbara
gbean@uail.ucsb.edu





Career Opportunity for Engineering Geologists

URS is a multi-disciplinary firm serving both public and private clients worldwide. The geotechnical practice of URS is the combined resources of the previous Woodward Clyde and Dames & Moore – two prestigious geotechnical practices with strong, deeply rooted tradition and technical reputation.

Our Los Angeles Office has immediate opportunities available for a wide range of experienced ENGINEERING GEOLOGISTS (from Project to Principal levels) to support or manage high-profile and major geotechnical projects involving schools, hospitals, dams, ports, and infrastructure developments.

Duties will vary depending upon level of experience; however, duties would ultimately include client contact, proposal and technical report writing, subsurface field investigations, fault trenching and mapping, field observation and testing, data collection, engineering analysis, project management and mentoring junior geologist staff.

The ideal candidates should be a California Certified Engineering Geologist (CEG) and should have at least 3 years of experience (after obtaining CEG license), a focused vision towards company and career growth, a genuine and conscientious work ethic, good organization skills, and be adept to a fast-paced, team oriented environment. Candidates should possess a strong academic background in engineering geology, good written/verbal communication and team work skills. Candidates must have own vehicle and a valid California Driver's license.

URS provides an attractive benefits package including 401(k), healthcare and paid time off, and competitive salaries and unlimited potential for career growth. URS is an equal opportunity employer.

To be considered, please submit your current resume to:

Gundula Thomas, Human Resources

915 Wilshire Boulevard, Suite 700

Los Angeles, CA 90017

E-mail: gundula_thomas@urscorp.com

Or apply on-line at

<https://www.urs.apply2jobs.com/>

to requisition no. URS9293

Southern Anza-Borrego Desert and Coyote Mountains, California

October 28 and 29, 2006

The geology of Anza-Borrego Desert State Park and the surrounding area attracts geologists from around the world. The trip includes an optional Friday afternoon (noon to 4pm) hike to explore the four mysteries of the Domelands which includes the enigmatic "flamingo nests." Optional Friday night camping will be at Agua Caliente County Park, with an optional evening hike to a detachment fault from the campground. The trip will begin on Saturday morning (8:30am) at the Carrizo Badlands Overlook on Highway S-2 in Anza-Borrego Park. We will explore the faulting and structural complexity of the northwestern Coyote Mountains as we descend Canyon Sin Nombre from the Overlook. We'll hike about a mile up a little known side canyon to see stratigraphic evidence of coincidental volcanic activity during the deposition of the Split Mountain formation, structural evidence of the Coyote Mountains uplift, and subsequent Mio-Pliocene basin evolution. We will return to the campsite at Agua Caliente for a catered dinner. The Agua Caliente hot springs await us in the evening, followed by the traditional evening program under the stars. After an early Sunday morning meal we will leave camp to explore the lava beds of Volcanic Hills, and the terrace cavelets and mesa conglomerates. After a short hike we will top off the trip with a sack lunch while discussing the geologic memories of the weekend and allowing you an early return home.

Trip Cost includes meals and liquids Saturday morning thru Sunday lunch, publication, camping fees, and trip logo hat. Carpooling and 4WD are necessary. Please bring your own water, camp and hiking gear, and FRS radios.

For more trip information: Dave Bloom at 619-571-3470, email: vp@sandiegogeologists.org

Register early - Field Trip details will be emailed to participants, so please list your preferred email address.

.....cut here and mail info with money.....

SDAG TRIP October 28th and 29th; Saturday & Sunday = \$110.00

Registration required by October 15th (Limited to 75)

Check here if camping Friday night: October 27th optional Friday night at Agua Caliente Park.

NAME: _____

ADDRESS: _____

EMAIL: _____ **PHONE:** _____

I will be Carpooling with: _____

Mail this form and your Check payable to SDAG to:

Sarah Gray, Marine and Environmental Studies Department,
University of San Diego, 5998 Alcalá Park, San Diego, CA 92110

YOU ARE CORDIALLY INVITED TO ATTEND THE

8TH ANNUAL

**JOHN WOOLLEY MEMORIAL
GOLF TOURNAMENT & BBQ**

**PROVIDING SCHOLARSHIPS & TEACHER AWARDS
THROUGH
COAST GEOLOGICAL SOCIETY**
(an affiliate of Pacific Section AAPG)



Elkins Ranch Golf Course
1386 Chambersburg Road
Fillmore, CA 93015
(805) 524-1440

Friday, October 13, 2006

9:30 CHECK-IN, 11:30 SHOTGUN START, TEXAS SCRAMBLE

- Golf – \$100/person (Box Lunch, 2 Drink Tickets, & BBQ Dinner included) or be a sponsor (4 different sponsorship levels available)
- Mulligans and raffle tickets available for purchase—BIG PRIZES!
- Family BBQ Dinner – \$20/ adult – \$13/ kids (17 years and under)
- Dress code enforced (soft spikes, no denim, no T-shirts)
- Raffle & Awards to follow tournament at the BBQ



Entry forms available now. Limited to the first 144 players! If you have questions, please contact:

Mike Phipps, Tournament Chairman
at (805) 732-4570 or
email: golf@coastgeologicalsociety.org

Downloadable entry form available at:
www.coastgeologicalsociety.org