

# Pacific Petroleum Geologist

NEWSLETTER



Pacific Section • American Association of Petroleum Geologists

September & October • 2007

**Los Angeles 3D Survey  
Leads to Deep Drilling  
Page 11**



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# Pacific Petroleum Geologist NEWSLETTER



Pacific Section • American Association of Petroleum Geologists

September & October • 2007

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Los Angeles 3D Survey Leads to Deep Drilling

Dalton Lockman  
Plains Exploration & Production Co.  
(Part II)



# Message from the President

## Jon Kuespert



Greetings to everybody. I hope that y'all had a great summer and are looking forward to the coming year. My being able to work closely with many of the members that have greatly contributed over the years to our Section is a wonderful opportunity.

It is with a sad heart that I report to you that on Monday, September 3rd, Dr. John Cooper of Cal State University - Fullerton passed away. John contributed much to the geologic world and was an active participant in Pacific Section AAPG programs, and even more in SEPM programs. John was also slated to be the co-General Chairperson of the 2010 PSAAPG Convention in the Los Angeles Basin. My understanding is that memorial services for John will be held on Sept 16 in Fullerton. Those are all the details that I have now, however, we are discussing a more extensive tribute to John in a later newsletter and through a program in the Section.

I would like to thank each of the officers who have served the Section this past year. For being an all-volunteer group they certainly accomplished a lot and laid a good foundation for the next crew. Past-President Mike Wracher, Vice-President Mike Ponck, Secretary Randall Stevenson, Treasurer Melissa Kolb and Past Past-President Joan Barminski all are to be commended for the time and results that were put in on our behalf. Often unsung members like Mark Wilson (PSAAPG Foundation), Mark Yarlot (Membership), Muriel Norton (Finance), Sandra Szymanski (Teacher of the Year Awards), Barbara Houghton (Div. of Environmental Geosci-

ences) and Rick Blake (Legislative and Public Affairs) should also be commended. Karen Blake (Newsletter Editor) deserves a hearty thank you for her successful efforts in revamping the Pacific Petroleum Geologist Newsletter and Website. Bob Countryman needs to be given a big kudos for stepping in for Karen as she becomes my Vice-President.

I know that Mike Wracher mentioned it in the last newsletter but over the summer the final accounting for the National Convention came out and we saw a hard quantitative number on how well the Convention Committee led by General Chairman Dalton Lockman, Kay Pitts and Larry Knauer did in Long Beach last spring. By many standards the Convention was one of the most successful ever. The Section has already geared up for Bakersfield in 2008 with Roy Burlingame as General Chairman. The call for papers is going out to you. I know that we are all busy, but I encourage you to write and present something.

At the recent Executive Committee meeting in Carpinteria, we discussed several concerns that the Section could be more responsive to that impacts our membership. As the Section continues to mature there is a need to encourage the younger people to become more aware that we are in an interrelated community, and must get more involved in the earth sciences. I came into the world of professional geology in the early 80's at the end of a hiring boom created by the demand for



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# Message from the President

Jon Kuespert

fossil fuels during the later 70's. Today the front edge of that hiring boom is retiring and we face even more demands on a smaller membership pool. That membership pool is searching for opportunities in often older fields or in prospects between those fields in areas inhabited by a geo-challenged community. Most companies look for professionals that can integrate modern tools with traditional approaches and interpretations. The benefits of being able to relate an outcrop or a core description to a wireline log, seismic or production response, and then map it on a computer in 3D, can be very valuable to both a small and a large employer. These are skills we need to pass on to those who follow us.

At the recent AAPG leadership conference I was able to see the position that the PSAAPG has taken in the National community. Members like Don Clarke (President-Elect), John Minch (Advisory Council), Bob Lindblom (Honors and Awards) were there putting their best PSAAPG foot forward. I look forward to spending time with all help.

National AAPG is very aware of the need to bring along the next generation of professional geologists and has instituted several programs to do that. Some of those initiatives we are talking about adopting. I would like PSAAPG to be more involved in reaching out to the community and supporting educational

activities in local schools. Although some members are now doing that we could be encouraging of those activities at our Section level.

One of the PSAAPG initiatives we discussed is to start a "Why I am a geologist" section in our newsletters. Members are encouraged to contribute short articles and pictures on how they first got involved. The hope is that younger individuals will know the more experienced members better and find a pathway that they too can walk down.

National AAPG is in the process of taking over the PTTC (Petroleum Technology Transfer Council) activities. PSAAPG will be more involved in the PTTC workshops and other activities in our region. National is also talking to SPE about their involvement. I implore you to ask your fellow SPE members to support these activities, it will benefit all of us.

I think all of us should be proud of what we have done, and excited about the future opportunities. The abilities and drive of our membership has made us a valuable contributor to the National AAPG community. We have the desire to continue forward and create those new opportunities for our Section and the rest of the geological community.

Jon Kuespert



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# Message from the Editor

Karen Blake



I'll be serving as the Editor until the Board can find someone to hold the position until the next election. The Editor as an appointed position, has a vote on the Board. The elected Vice-President has a vote on the Board. Bob Countryman has stepped up to help with the website. Thanks Bob!

If someone is looking for an opportunity to serve - here it is. Or if, in the way of many organizations, you know someone who you think may have an interest, forward their names to the board. To make this transition easier, I will continue to help with the newsletter.



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## CHALLENGING PAPERS ON THE SAN ANDREAS FAULT RECENTLY PUBLISHED BY THE PACIFIC SECTION OF AAPG

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### The Big Bend Segment of the San Andreas Fault: A Region Dominated by Lateral Shortening Rather than by Strike Slip by Robert H. Paschall

#### Excerpts:

Between 1962 and 1997, nine authors and co-authors ascribed right lateral displacements on the San Andreas fault in its combined Big Bend and Southwestern Segments of 16, 116, 150, 210, 260, and 1000 kilometers. The time of initial displacement was assigned variously to four periods from Oligocene to Pleistocene. In no cases were earlier published opinions cited.

Thomas Dibblee, California's famed field geologist, said: "From field relations outlined above, it is evident that dextral displacement on the San Andreas fault zone within the late Miocene to Pleistocene sedimentary fill of the Imperial basin does not exceed 16 kilometers."

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### A Tale of Two Eocene Sands and My Life with the San Andreas Fault by Henry Walrond

#### Excerpts:

Waltham Canyon west of Coalinga is the obvious site of the strait that connected the San Joaquin basin to the Pacific Ocean. There is no evidence of offset of the depocenter of Pliocene sediments that lie unconformably on marine Lower Miocene where the strait crosses the San Andreas fault.

Jack Clare, who engaged in extensive field and subsurface work, concluded that thick Lower and Middle Miocene sediments in the Caliente and Temblor ranges, juxtaposed across the San Andreas fault, show no indication of significant strike-slip displacement.

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# Los Angeles 3D Survey Leads to Deep Drilling

DALTON LOCKMAN  
Plains Exploration & Production Co.  
(Part II)

Acquisition design. In practice, this meant the survey area had to be several times larger than the actual field area, with vibrators and receivers positioned both inside and outside the field to get the proper shooting geometries and angles, depending on the dips and geometries of the beds (Figure 4). Geophones within the field boundaries were placed at a denser offset line spacing of 600 ft with a 5050-ft bin size to detect faults over the shallow Vickers/Ringe. Outside the field, line spacing was doubled to 1200 ft with a bin size of 100100 ft to achieve the longer offsets needed to image deep.

The red dots in Figure 4 represent vibration points, and the blue dots represent geophone locations. Figure 5 shows the 3D survey area superimposed over an aerial photo mosaic, with yellow dots denoting vibrator points and blue dots showing geophone/cable lines.

The hybrid swath design included 21.3 square miles of recording layout, with 2269 total vibration (source) points (660 within the field and 1609 in areas surrounding the field), 4600 total receiver positions (1920 in the field and 2680 outside the field), and a 12 00012 000 foot “rolling line” recording patch length with a minimum width of five lines and a maximum width of 15 lines.

commodated in the survey design, and private property was avoided as much as possible. Instead, geophone and vibrator locations were restricted mostly to streets and roads, where the city or county owns the easement rights to the first 10 ft of roadway from the curb, greatly simplifying access and permitting.

In addition to securing permits from three municipal and one county government, other agencies or organizations involved in permitting included the California Air Resources Board (CARB), the California Department of Transportation, the Metro Transit District, West LA College, and public and state parks. PXP also had to secure “private” permits from 20 homeowners and seven business owners whose property had to be used to accommodate cable crossings or geophone positions. Buggy-type vibrators supplied the seismic energy source in the field, but on the truck-mounted vibrators used on city streets, CARB regulations required all source generators to be certified for air quality independent of the trucks’ drive-train. Because no CARB-certified, street-legal vibrator trucks could be located, the source generators on all five vibrator trucks had to be modified before CARB permits could be secured.

Public exhibition. In Culver City, PXP held a public exhibition of the 3D technology before the city council on the street where the city’s mayor lives. Geophones



The Inglewood Field 3D survey used a hybrid recording layout. The truck-mounted vibrators at left were used on city streets with 1200 ft line spacing to provide longer offsets to image the deep zones, while the buggy-type vibrators at right were used within the field area to image the shallow interval with 600 ft offset line spacing.

# Los Angeles 3D Survey - continued

and cables were laid along the street, and surface tests were conducted with a train of four vibrator trucks. The city ran pigs in the 100-year-old sewer lines beneath the street both before and after the tests to make sure the vibration would not damage them, and surface waves were monitored at different locations—including inside the mayor's house—to measure vibration and noise levels. The mayor called the demonstration a success, stating, "My dog didn't bark, the chandelier didn't sway and my antique china display was unscathed!" Within a few days of the demonstration, Culver City issued a permit.

Once all necessary permits were obtained, the 55-man survey crew was mobilized to begin acquiring data. Inspection video was recorded of buildings, streets, sidewalks, walls, fences, etc., ahead of the vibrator trucks in the event claims were later filed alleging personal or public property damage from the vibrations. PXP also hired Matheson Mining Co. to monitor peak particle velocities on both sides of the vibrator trucks at all vibration points to make certain vibration levels remained within federal government standards to avoid structural damage.

In all, the survey used 3327 geophone sets (placed either inside sandbags on sidewalks/gutters, or occasionally in lawns within the public easement), 5000 sand bags, 551 data transfer boxes, 31 line collection boxes, 914 batteries, and 769 line cables. Among the operational challenges, one of our biggest issues was preventing street



A public demonstration was held in Culver City for city council members and other interested parties. Surveying operations were conducted on the street on which the city's mayor lives, and included monitoring vibration and noise levels inside the mayor's house.

sweepers from grabbing cables in gutters and breaking them. The combination of hot temperatures and heavy traffic also proved too much for standard cables, and heavy-duty cables had to be used at major intersections and other high traffic areas. For additional protection, cables were often buried within the road surface when possible.



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# Los Angeles 3D Survey - continued

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Some of the work was performed in high crime neighborhoods, and theft of equipment did occur, but it was considerably considerably less than anticipated.

The biggest single loss was batteries, all of which were stolen by one individual in a single day. Damage claims (primarily interior and exterior building cracks) were also significantly less than originally estimated. The vibrator trucks were permitted to vibrate on the streets only between the hours of 9 a.m. and 3 p.m. Monday through Saturday. Acquisition took 60.5 days total: four layout days, 46 vibrator days (the trucks vibrated 46 days on streets, while the buggies vibrated 19 days in the field), 3.5 pick-up days, four nonwork days (Sundays), and three rainout days.

In terms of total acquisition costs, the largest expenses were attributed to data collection (72.5 percent); additional services such as traffic control, quality control and particle velocity monitoring (10.2 percent); permit/agent fees and truck retrofits (4.4 percent); and surveying (4.3 percent). Damage and equipment theft each accounted for less than 1 percent of the total acquisition costs.

**Deep drilling success.** By January 2004, PXP was ready to begin drilling based on the 3D data. The first seven prospects were designed as “concept wells” to test deep fault blocks in the Sentous. The first of those wells was completed in February 2004 with 10-day flow test rates averaging 300 barrels of 43-degree API crude oil and 3000 Mcf of gas a day, easily exceeding the company’s preliminary expectations. To date, 30 deep wells have been drilled in the Inglewood Field, and 25 are now on production producing a combined 2500-3000 barrels of oil a day.

There has been a learning curve associated with completing the wells. The first three wells used slotted liner completions, but unfortunately, the liners collapsed, and the completion method had to be revised to running casing/cement and hydraulic fracturing

the Sentous. By late summer 2004, production began to ramp quickly as the wells using the new completion strategy came on stream.

By the end of this year, PXP expects to have drilled 36 deep wells in the Inglewood Field, with a number of additional locations already identified for future drilling on the current 10-acre spacing. Because the field has multiple, stacked zones, there is also future uphole recompletion potential in the deep wells targeting the Bradna, Moynier and Rubel zones, as well as the shallow Vickers/Rindge. In fact, the company has already reprocessed the entire data set to enhance faulting detail in the shallow horizon, although drilling will very much remain focused on the deep zones for the foreseeable future.

In the final analysis, challenges certainly were encountered while planning and conducting the Inglewood Field 3D survey, including problems related to topographic variability, fold design for steep dip, layout constraints, theft and traffic, and damage to structures. However, with proper planning and diligence—especially in permitting—the survey operations successfully acquired 21.3 square miles of 3D seismic across the boundaries of four municipalities in a highly urbanized setting, delivering a final data set as designed.

The bottom line is that the real result of the 3D survey is the ongoing deep drilling program. Without the new seismic data, Plains Exploration & Production would not have drilled the deep wells and would today be producing 2500-3000 fewer barrels of oil a day from the Inglewood Field.

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This notice and other information regarding oil and gas leasing in the state of Colorado is available at:

[http://www.blm.gov/co/st/en/BLM\\_Programs/oilandgas/leasing.html](http://www.blm.gov/co/st/en/BLM_Programs/oilandgas/leasing.html)

**When:** The competitive oral sale will begin at 9 a.m. on November 08, 2007. The sale room will open one hour earlier to allow you to register and obtain your bid number. Registration begins at 8 a.m.

**Where:** The sale is held at the Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215. Parking is available.

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Pavlof volcano and eruption  
plume on the evening of  
August 30, 2007, 21:20  
AKDT.

Image: Chris Waythomas




I walked into the room late. There, at the head of the class room, was a man that appeared to be either Jerry Garcia (the lead singer of the Grateful Dead, for those that don't know) or Santa Claus. A big, burly man with long scraggly, unkempt hair on top, down over his ears and down his back, and a great full white beard in the front.

This was the man, Dr. Pemberton, who was to teach me and several dozen others about the field of ichnology! Yes, the truly exciting field of looking at worm tubes and shrimp holes and determining from their tracks and tubes and trails what a rock layer was like when it was first laid down eons ago. It goes to show you that even when you are a soft animal that can't leave a fossil behind that you can still leave something behind! (After all, you can't take it with you?).

Dr. Pemberton had a great, booming voice. However, he soon caught a vowel or something that made him stutter. It soon became apparent that he had quite a stuttering problem. But, he made fun of it! Having been borne with a cleft palate myself, I could really relate. I have to admit that day #1 was boring at times,

partly because I had to fly in early from Sacramento to Long Beach, arrived one hour into the class, and the coffee barely kept the eyelids open until lunch.


Day #1 we went over the types of trace fossils that are found in many different types of environments. They were all marine environments, including tidal flats, offshore bars, etc. The ichnologists have come up with names for each type of trace fossil that they see, and have tried to determine which type of animal created the imprints that they left. The words that they threw out that day were for the types of fossils that they saw, which could often give you insight into whether the rocks were laid down in a tidal flat, tidal bore, near-shore or offshore environment: Cruziana (bilobed trail or "herring bone" ridges) burrows), Chondrites (branching, vertical or horizontal feeding burrows), Ophiomorpha (branching dwelling and feeding burrows made by shrimp that have a box-like network appearance), Nereites (a meandering trail with a medial furrow and closely-spaced lobes on either side of the furrow, interpreted to be a feeding trail) and Skolithos (a simple, vertical tube burrow that is interpreted to be the dwelling of a suspension-feeding animal).



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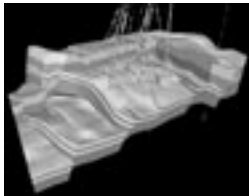
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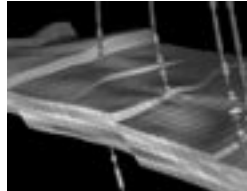




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Day #2 was more exciting. We had to review some of the Day #1 stuff, but we were able to tie the trace fossil data to real live oil and gas field examples. Dr. Pemberton was a bit optimistic for his field, I think, when he said he said that many, or even most, of the great oil and gas fields of the world had enhanced permeability and/or porosity from the work of worms and shrimps. This was in direct conflict with what some other workers have determined, that being that the worm tubes and shrimp holes can actually ruin permeability due to preferential cementation of their holes. Of the many types of trace fossils, many come from animals that were attached to the rocks or other substrate, and they are said to be “sessile”. They stick their body parts such as arms or tentacles out into the saline waters, and siphon in the food from the passing waters. It dawned on me that these “sessile” animals or plants got their “meal” from the sea. I tried to remember if I had seen evidence of worms or shrimps in the outcrops of the Saugus formation near San Fernando, one of my first mapping projects as a young oil & gas geologist. I had worked up a play in the foothills of the Sierra Madre range above the San Fernando Valley north of Los Angeles.

The land that I was walking on was owned by the heirs of Cecile B. DeMille, one of the greatest movie directors ever. But, the formation was non-marine, and those types of rocks usually have no trace fossils. So, no sessile meal on Cecile B. DeMille lands.

However, I ate up the information given to me in the two-day course!



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November 30, 2007

31 March - 2 April 2008  
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The 2008 Pacific Section American Association of Petroleum Geologists (PSAAPG) meeting will be held in beautiful Bakersfield, CA. This year's convention will once again be a joint conference with the Western North American Region SPE (WNARSPE). Along with AAPG and SPE, the Pacific Section SEPM and SEG will sponsor technical sessions. The theme is appropriate for this combined meeting, "Adding Reserves Through Collaboration, Innovation, and Technology Transfer" which will emphasize the importance of collaborative efforts combined with new technology to maximize energy reserves, especially in many of the mature petroleum producing areas that make up the Western Region. In order to make this meeting one of the best ever we will be putting together a technical program that covers all areas of the Pacific Section.

And that is where you come in!

Dust off and complete that presentation that may not be quite done yet or share some of your latest work. We are seeking both oral and poster presentations that will be of interest within a wide variety of general topics. We hope you will strongly consider submitting a paper on one of the topics listed on the tri-fold sleeve. Other topics not listed that could benefit your fellow petroleum professionals are also encouraged.

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## John D. Cooper

June 12, 1939 - September 3, 2007

John D. Cooper, a Cal State Fullerton geologist who was widely known for his research on the evolution of eastern California and for curating a significant collection of fossils that were unearthed during the development of Orange County, has died. He was 68.

After growing up mainly in Blacksburg, Va., where his father taught geology at Virginia Tech, Cooper received a bachelor's degree in geology from the University of Michigan in 1961. At the University of Texas, he earned a master's degree and, in 1970, a doctorate in geology.

He came to Los Angeles in the late 1960s to work as an exploration geologist for Shell Oil and began teaching at Cal State Fullerton in 1970.

Cooper was recognized as an international expert in sequence stratigraphy, a relatively new branch of geology that attempts to link prehistoric sea-level changes to sedimentary deposits. Much of his work was done in the eastern Mojave Desert and southern Great Basin.

For more than 30 years, Cooper used Shoshone, Calif., a village at the southeastern edge of Death Valley National Park, as his base for field research. He gave back by developing exhibits for the Shoshone Museum and serving as president of its board of directors.

In Brea, he helped establish the Olinda Historic Museum and Park and helped develop geologic exhibits related to Olinda, a once-bustling oil town.

In retirement, Cooper attended many events related to the bicentennial celebration of the Lewis and Clark expedition of 1804-06. He also indulged in trail hiking and logged more than 5,000 miles, mainly in the hills around his home.

Cooper died Monday of a heart attack suffered during a morning hike near his Chino Hills home, said his wife, Nancy. In addition to his wife, whom he married in 1976, Cooper is survived by a daughter, Chaska of Burbank; son Zachary of Fullerton; stepson Randy Thompson of Chino Hills; a sister; and a grandson.

Donations may be made to Cal State Fullerton's John D. Cooper Field Camp Award:  
[www.fullerton.edu/supportCSUF/geologyrocks](http://www.fullerton.edu/supportCSUF/geologyrocks)





## Bob Ernst

June 27, 1936 - April 11, 2007

Bob Ernst June 27, 1936 - April 11, 2007 Robert John Ernst was born a twin on June 27, 1936, in Atascadero, California. He died April 11, 2007, in Bakersfield, California. Bob is preceded in death by his mother, Alma and father, Harold. He is survived by his wife of 14 years, Mary; his elder sister, Barbara; his twin brother, Richard; his son, Robert Todd; his daughter-in-law, Karen; grandchildren, Michael and Katharine; and his stepson, Chad Price. He is also survived by a large, extended family including his aunts Violet, Hazel, Bertha, and Marge; his uncle, Eugene; and numerous cousins, nieces, nephews; as well as many loved ones and dear friends.

Bob grew up in Paso Robles and became an accomplished football player. Both he and his twin brother, Dick, were voted All CIF (California Interscholastic Football - all-star team), and Bob played in the state All CIF Shrine Bowl his senior year in high school. Both Bob and his brother went on to play football at Taft College and later at Montana State University. In 1959, after college, Bob Ernst entered the U.S. Army and served until 1961. He then moved to Bakersfield where he took a sales position with a local office supply company. He continued to work as a successful salesman for 29 years, until his retirement. Bob Ernst was an avid hunter and fisherman and served as president of the Kern County Fish and Game Protective Association from 1981-1987. After retirement, Bob devoted the rest of his life to exploration of the fossil bed in the Round Mountain Silt.

Through his hard work and dedication, Bob Ernst leaves, for all, a legacy of thousands of rare paleontological artifacts housed in museums around the world. Anyone fortunate enough to come in contact with Bob Ernst knew of his ardent passion for Kern County's paleontological record. But there was more to this man than Shark's Tooth Hill. He was a loving husband, a caring and supportive brother, a determined father, a playful grandfather, and a fierce friend. Bob was a pinnacle of strength and good character in all of our lives; and now we must follow his example - without his guidance.

Published in the Bakersfield Californian on 4/15/2007.

*Joseph F. Elliott*

**Geophysical Consultant**

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Alaska Geological Society  
www.alaskageology.org

P. O. Box 101288  
Anchorage, AK 99510

Contact: Robert Blodgett  
786-7416



Luncheon meetings are held monthly September through May, usually on the third Thursday of the month, at the Anchorage Hilton (500 W. 3rd Avenue) from 11:30 a.m. to 1:00 p.m. The cost is \$18 for members with reservations; no reservations add \$5; non-members add \$2. For reservations, call the AGS reservation voice mail at 907-258-9059 or contact **David Hite** at hiteconsult@acsalaska.net by noon on Monday before the meeting.

2007 - 2008 Officers

President

Robert B. Blodgett

rbloodgett@usgs.gov

September 20 - TBA

October 18 - TBA

Coast Geological Society  
www.coastgeologicalsociety.org

P. O. Box 3055  
Ventura, CA 93006

Contact: Shaun Simon  
805.495.2197



Dinner meetings are held monthly September through June, usually on the third Tuesday of the month, at the Veterans of Foreign Wars Hall at 3801 Market Street in Ventura. Social hour starts at 6:00 p.m., dinner is served at 7:00 p.m., and the talk starts at 8:00 p.m. The cost of dinner is \$18 (with reservations), \$20 (without reservations), or \$10 (students and K-12 teachers); the talk is free. For reservations, contact **Dave Brown** at 805.653.7975 or make reservations online at www.coastgeologicalsociety.org. Reservations should be made by 4:00 p.m. on Friday before the meeting.

2007 - 2008 Officers

September 18 - Matilija Dam: Implications of Dam Removal on Floodplain and Watershed Management;  
A. Paul Jenkin, Founder and Coordinator, Matilija Coalition

October 16 - TBA

Los Angeles Basin Geological Society  
www.labgs.org

515 So. Flower Street, Ste 4800  
Los Angeles, CA 90071

Contact: Jon Kuespert  
213.225.5900 x224



Luncheon meetings are held monthly September through November and January through June, usually on the third or fourth Thursday of the month, in the Monarch Room at The Grande at Willow Street Conference Centre (4101 E. Willow Street) in Long Beach. Lunch is served at 11:30 a.m., and the talk starts at 12:15 p.m. The cost is \$20 (with reservations), \$25 (without reservations), or \$5 (students). Reservations can be made online at www.labgs.org or by contacting **Jon Kuespert** at jkuesper@breitburn.com or (213) 225-5900 ext. 224. Reservations must be made prior to Tuesday before the meeting.

2007 - 2008 Officers

President

Jon Kuespert

jkuesper@breitburn.com

September 27 - What makes southern California spin? A look at rotational tectonics along the San Andreas plate boundary; Nate Onderdonk of CSULB

October 25 - Schlumberger on their Periscope drilling technology: Erika Bowen



Northern California Geological Society  
www.ncgeolsoc.org

9 Bramblewood Court  
Danville, CA 94506-1130

Contact: Barb Matz  
Barbara.Matz@shawgrp.com



Evening meetings are held monthly September through May, usually on the last Wednesday of the month, at the Masonic Center (9 Altarinda Road) in Orinda. Social hour starts at 6:30 p.m., and the talk starts at 7:00 p.m. (no dinner). For reservations, leave your name and phone number at (925) 424-3669, or at danday94@pacbell.net before the meeting. Cost is \$5 per regular member; \$1 per student member.

President:	Barb Matz	Barbara.Matz@shawgrp.com
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	Tridib Guha	Tridibguha@sbcglobal.net
	Don Lewis	donlewis@comcast.net
	Ray Sullivan	sullivan@lucasvalley.net

September 26: TBA

October 31: TBA

Field Trip: May 2008, Point Lobos to Point Reyes: Evidence of ~180 km offset of the San Gregorio & Northern San Andreas Fault; Kathleen Burnham, Independent Researcher

Northwest Energy Association  
dlgellar@msn.com

P. O. Box 6679  
Portland, OR 97228-6679

Contact: James Jackson  
503-771-3887



Luncheon meetings are held monthly September through May, usually on the second Friday of the month, at the Multnomah Athletic Club (1849 SW. Salmon Street) in Portland. Meeting time is at 7:30 - 9:00 am. The cost is \$15. For information or reservations, contact **Shelley Thomas** at 503-848-2947 or **Treck Cardwell** at 503-226-4211 ext. 4681.

2007 - 2008 Officers

TBA

Sacramento Petroleum Association

P. O. Box 571  
Sacramento, CA 95812-0571

Contact: Rick Blake  
925-422-9910



Luncheon meetings are held monthly January through November, on the third Wednesday of the month at the Hungry Hunter Restaurant (450 Bercut Drive) in Sacramento. The meetings starts at noon. The cost is \$16. For information or reservations, contact **Pam Ceccarelli** at 916-322-1110 or pceccare@consvr.ca.gov.

2007 - 2008 Officers

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Vice President	Marc Brennen	marc.brennen@halliburton.com
Secretary/Treasurer	Pam Ceccarelli	pceccare@consvr.ca.gov

San Joaquin Geological Society  
www.sjgs.com

P. O. Box 1056  
Bakersfield, CA 93302

Contact: Rob Negrini  
rnegrini@csu.edu



Dinner meetings are held monthly October through June, usually on the second Tuesday of the month, at the American Legion Hall (2020 H Street) in Bakersfield. The icebreaker starts at 6:00 p.m., dinner is served at 7:00 p.m., and the talk starts at 8:00 p.m. The cost of dinner is \$20 (with reservations) or \$23 (without reservations); the talk is free. For reservations, contact **Janet AcAlee** at [jmcalee@pxp.com](mailto:jmcalee@pxp.com) or (661) 395-5438.

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[jmcalee@pxp.com](mailto:jmcalee@pxp.com)

September 7 - Annual Golf Tournament and Barbeque  
October 9 - TBA

Everett Stevenson  
Operations Coring Coordinator



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