An exciting program for our 1999 annual convention in Monterey is taking shape. As of this writing (early December) we have nearly a hundred abstracts with some still coming in. Continuing a healthy trend seen in the national AAPG convention there is a heavy emphasis on posters. While poster presentations require more effort from their presenters, I think both authors and viewers gain much more from the exchange in the presentation booth. Professor David Andersen, our Technical Co-chair for the convention, has prepared the following brief summary from the abstracts that he has reviewed to date.

"Abstracts we have received cover a wide range of topics on sedimentary systems and hydrocarbons. Some highlights of the technical sessions include symposia and theme sessions on:

- **Fluid seeps at transform and convergent margins** - this will be a major international review of the effects of continental margin seeps on Earth systems; these seeps directly reflect hydrocarbon migration and sources, impact and feed biological systems, and influence marine waters and coastal groundwaters;

- **Sedimentation in continental shelf, submarine canyon, and sub-sea fan systems** - several sessions will cover new discoveries in continental margin sedimentation, including new techniques for acquisition and interpretation of data in marine environments;

- **Circum-Pacific exploration sites, including methane hydrates** - these topics will dovetail with the papers on circum-Pacific fluid seeps;

- **Surveillance and reservoir modeling** - continuous improvement practices and paradigm shifts add reserves;

- **Geology and diagenesis of the Monterey Formation** - topics related to reservoir quality in California;

- **Geology, seismicity, and neotectonics of the San Gregorio fault zone, central California coastline** - the latest information on geologic history and total slip estimates, as well as current slip rates and modern seismic hazards."

Field trips are planned to highlight major features of Salinian block geology, including the unique geology of San Ardo, California’s sixth largest oilfield, the Sierra de Salinas and the neotectonics of the San Gregorio fault zone. A pre-convention guided geologic tour from southern California to the convention site is also being planned.

Short Courses are still under discussion, but will probably include collection and interpretation of sea bottom imaging data (Gary Greene and MBARI scientists), and an AAPG Petrophysics course.

We all look forward to the Wednesday evening Ice Breaker at Monterey Bay Aquarium. We will have the Aquarium all to ourselves!!!!!!!!!!!!!!!!!!

In other good news (we need to emphasize the good news in these time of low oil prices) we have just received word that the AAPG Foundation is giving the proposed Petroleum Geotechnology Center at the Geology Department of CSUB $34,000 for the purchase of hardware. If we, local industry and the CSUB Geology Department, can find $17,000 from other sources, the AAPG Foundation will provide an additional $34,000 for a total of $68,000 for the Center. Accord-

(Continued on page 2)
ing to Professor Jan Gillespie, "the Center has already been
told by Jerry Mazzaferro at Schlumberger GeoQuest that
they will donate about 3.9 million dollars worth of software
including their CPS-3 mapping suite, the IESX 3D seismic
package, PetroView for petrophysics and Eclipse, their reser­
voir modeling program. Geoplus Corp. is donating approxi­
mately $189,000 of PC-based software. They produce a
software package called PETRA, which is similar to Geo­
Graphix. If the additional moneys come through in the next
few months, we could be up and running by fall -- certainly
with the PC packages since we already have the necessary
hardware for those."

Pacific Section supports the Petroleum Technology Center,
whose purpose is to offer both students and industry profes­
sionals access to and training with the latest and most sophis­
ticated software and hardware for the petroleum industry.
AAPPG Foundation support is in line with their support for
similar centers at Universities in both Dallas and Houston.

The Center is pursuing more support in the form of both cash
and software donations. For further information contact Jan
Gillespie at CSUB (805) 664-3040.

Start planning now to attend the convention at Monterey
April 28th to 30th, 1999, see you there!!!!!!!!!!

Mel Erskine
President 1998-99

A Letter from the Otter

Dear Jeff and Core Family,

The otter is ok and having as much fun as ever.
Immigration came in last week and "demanded" a
donation for themselves to house 2 senior officers,
their wives and servants for one week in Port Harcourt
from Abuja. Of course we said here's 10,000 niara
for your troubles. Nigeria income tax people sent a letter
stating that 1995 thru 1998 income tax returns were
not in order. Our local attorney says no problemo.

I went to Warri last week and felt very uncomfortable.
I got the flock out of there as soon as I could. We had
a blow-out and went into the swamp, natives offered to
help for 10,000 naira, tried to sell me a bush dog in a
horse shoeing on a dead catfish (none of this is made
up) and clapped when we got the tire changed and got

Averill Munger

The oil industry has lost a good friend who proba­
bly had more knowledge of the upstream energy of
the industry in California and nearby states than
anyone in the exploratory and production operations.

After struggling with ill health for the last four
years, Averill H. Munger died at his home in Playa Del
Rey on Nov. 14, leaving his wife, Kay, three children
(Sid, Betty and Mary by his late first wife Dorothy),
eight grandchildren and five great grandchildren.

Born in March 1915 to Elwood J. and Frances H.
Munger on a Union Oil Lease in Brea, Averill was
involved in the oil industry for most of his life. His
parents launched the Munger OilLogram in 1919 and
as the business grew during his childhood years,
Averill and his siblings (Elwood, Corlyn and Corinne)
were involved in production of the newsletter - a
regular family business concern.

The family moved to Whittier after a few years,
where Averill went to school, later going on to
Pomona College in Claremont. Finishing college at a
time when work was hard to find, Averill was glad to
join CCMO, which later became Santa Fe Energy,
Monterey Resources and now Aera Energy.

Working at Rincon, Ventura County, Averill
started as a roustabout working through as a rough­
neck and later a derrick man. This grass-roots
experience proved invaluable later when he joined his
parents at Munger Oil and became involved in the
scouting work which would make the Munger OILo­
gram the source of widespread news of thousands of
wells.

When things became really tough in the oil indus­
try at the end of the '30s and early '40s, Averill's team
found themselves laid off, and for a while Averill
worked for the Southern Pacific Railroad before join­
ing the Navy in the World War II.

After demobilization in 1946, Averill went to work
for the family company, Munger Oil Information, and
found himself doing the scouting work. Finding a real
need for good maps (and always having been fasci­
nated by maps) in the '50s Averill and his good friend
Eddie Placidi developed the Munger Map Book,
which still is being updated and produced and is
much in evidence on desks throughout the industry.

Averill also worked on producing map books for
the industry overseas, and one of his publications is
in the Library of Congress. Averill became president of
the company after the death of his parents, and
continued in a very active role until ill health kept him
away from the office in Los Angeles some four years
ago.

After Dorothy, his first wife, died in 1983, Averill
remarried. He and Kay, from England, were married
(Continued from page 2)

in Kauai toward the end of 1984. Kay joined Averill in the office in January the following year and she continues there alongside Bill Bolster, son of Averill's sister, Corlynn, who also worked in the family business.

The business is still family-owned and operated, celebrating 80 years of service to the industry in 1999. The family plans to keep the Munger Oilogram in service.

Should anyone wish to make a gift to remember/honor his life, Averill's request is that this should be made to R.M. Pyles Boys Camp, Attn: Paul "Rocky" Leitzel, 27211 Henry Mayo Dr., Valencia, CA 91355-1009-for the Scholarship Fund. R.M. Pyle's boys camp had a special place in Averill's life. He supported the camp in all activities and was a member of the board.

He was proud to have given much-needed assistance when he heard the success stories of boys who had their lives turned around.

Bill Rintoul
### January 1999 Meetings

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K - 12 ACTIVITIES

AAPG Teacher of the Year Awards program is off and running in the Pacific Section. For information please contact your society representatives. If your society representative is not listed below, please contact your society President or Paul Henshaw.

Pacific Section:
Paul Henshaw phns@chevron.com
SJGS:
Paul Mock phmo@chevron.com
Coast GS:
Joan Barminski joan.barminski@mms.gov
NCGS:
Randy Kirby rkirby.geosci@usa.net
Monterey GS:
Gary Greene greene@cruzio.com
LA Basin GS:
Don Clark doclark@ci.long-beach.ca.us

AAPG Pacific Section Teacher of the Year Process

Each year the individual societies of the Pacific Section of the American Association of Petroleum Geologists will select a K - 12 Teacher of the Year for their respective societies. They will then forward their winners to the Pacific Section as nominees for the Pacific Section Excellence in the Teaching of Natural Resources in the Earth Sciences Program of the same year. [For example the Pacific Section societies will select their 1999 winners by March 15. These winners will become the nominees for the Pacific Section program for 1999, with the winner being named at the Pacific Section meeting in Monterey.]

The society nominees will be evaluated by the Pacific Section K-12 Teacher Award Selection Committee for selection of the Section winner. The winner of the Pacific Section Excellence in the Teaching of Natural Resources in the Earth Sciences Program will then become the sole nominee from Pacific Section for the National AAPG Excellence in the Teaching of Natural Resources in the Earth Sciences Program for the following year. [For example, the winner of the Pacific Section Program, awarded at the Monterey meeting, April, 1999, will be the Pacific Section’s nominee for the National AAPG program for 2000 – nominations due in November, 1999.]

The Pacific Section K-12 Teacher Award Selection Committee will be made up of at least 3 members. The members shall include the Pacific Section Youth Activities Committee Chair, the Teacher Program Chair/Coordinator of the Pacific Section Meeting for the selection year, and at least one member of the Pacific Section Executive Committee. The Pacific Section Youth Activities Committee Chair will chair the selection committee and be responsible for forwarding the Pacific Section’s winner/nomination to the National AAPG Excellence in the Teaching of Natural Resources in the Earth Sciences Program.

Paul Henshaw

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Bakersfield, CA 93311

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Production Data Data Management

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fax (805) 347-0688 Bakersfield, CA 93301
Deep Bonanza or Question Mark

Bellevue Resources Inc. was not the first company to think there might be considerably more gas and perhaps oil to be discovered at greater depth east of the main area of the Lost Hills field. Others showed verbal interest. But none, as operator, rushed to pursue the search with a deep wildcat.

Bellevue Resources, a wholly-owned subsidiary of Elk Point Resources Inc., of Calgary, Canada, initiated the deeper pool search as operator on May 14, 1998, by spudding in to drill Bellevue No. 1 on Sec. 17, 26S-21E, Kern County, approximately one mile northeast of production in the Lost Hills Field. The contract drilling rig was Nabors Drilling USA’s No. 495. The rig was capable of drilling to 25,000 feet. Drilltek Inc., of Bakersfield, was the consultant. The drill site was on land leased from Chevron, which kept 25 percent royalty payment.


By Monday, November 23, the confidential exploratory well had reached a depth of 17,640 feet and had penetrated the Temblor Formation. At approximately 8:30 p.m. on that date, the Bellevue No.1 blew out and ignited. All 17 rig workers and crew were quickly and safely evacuated without injuries. A flare of some 200 feet that could be seen for 20 miles marked the drill site.

A 5-member team from Houston-based Boots & Coots International Well Control arrived at the location at approximately 3 a.m. Tuesday, November 24, and began mobilizing their specialized control equipment from Houston to the site to begin the process of clearing the debris from the wellhead. Once the initial wellhead cleanup was accomplished, a better assessment could be made to determine the best alternative for getting the well under control.

Adean Walsh, President of Elk Point Resources Inc., and Bellevue Resources Inc., and other members of the Incident Command Team arrived on site at approximately 4 p.m. on Tuesday, November 24, to work with Boots & Coots to get the well under control.

In the two weeks that followed, the uncontrolled flow rate at the uncontrolled flow rate at the wild well was estimated at up to 100 million cubic feet of gas per day and 1,000 barrels per day of condensate. The reservoir that had been tapped was estimated to offer production from a structure 5 to 10 miles long.

By Friday, December 11, the well had produced enough water to quench the flames. A new well located about one-third mile from the discovery well approached the starting post. Bellevue planned to intercept and control the well that had blown out. The relief well was Bellevue No. 1R on Sec. 17, 26S-21E, Kern County. The well figured to open the door wider on reserves tapped by the discovery well.

The Bellevue No 1 had made a new depth record of 17,640 feet for Lost Hills. Before the Bellevue well, the deepest well drilled at Lost Hills had been a wildcat 7 miles northwest of the Bellevue well.

Shell Oil Co. On March 28, 1967, had spudded in to drill the Arco No. 123-22 on Sec. 22, 25S-21E, taking the well to total depth of 16,636 feet, topping
Miocene Chert at 11,600 feet and bottoming in targeted Miocene. The well was abandoned on September 20, 1967.

The Lost Hills field had been discovered on July 20, 1910 by pair of independents, Martin and Dudley, whose well on Sec. 30, 26S-21E, was drilled for water and instead found oil, pumping the oil at a rate reported at less than 50 barrels per day. One of the first mentions of the Lost Hills field in an official article came in 1924 the Volume 10, No. 1, issue of the article was "The Minor Oil Fields of Kern County."

The Lost Hills field became a giant. Cumulative production from the field to the first of 1998 was 266.2 million barrels of oil and 491.9 billion cubic feet of gas. Reserves were estimated at 70 million barrels of oil and 357.8 billion cubic feet of gas.

Production from the field in July 1998 was 31,400 bopd of oil and 51.1 million cubic feet of gas per day from 1,737 wells. Top producers in July were Chevron USA Inc., 15,322 bopd and 26,555,000 cubic feet of gas per day from 738 wells; Aera Energy LLC, 11,522 bopd and 5,572,000 cubic feet of gas per day from 275 wells.

Bellevue Resources Inc.'s production rate remains to be seen perhaps as a new pool in the Lost Hills Field, maybe as a new field. Also to be seen is whether the Bellevue deep play will encourage others to search for significant deep production in the San Joaquin Valley. Field sources are optimistic.

(Continued from page 2)

back on the road. Advice: don't go to Warri again without a big sense of humor and a frontal lobotomy. The bottle in front of me is a great joke down here, thanks Jeff.

Weather today is hot and humid, weather last week was hot and humid, weather last month was hot and humid, weather last year was hot and humid, weather in Jurassic was hot and humid, weather... you get the idea yet?

Please tell Allen to say hello to Mike Clark at Chevron, good move. Say hello to Mike Simmons before he leaves for Saudi land. Hi Linda, life is good, the sky is blue, the clouds are big, white and fluffy, my stomach hurts all the time, etc. Tell Ms. Huggins the beer everyday only works part of the time, I just can't get used to the food here. Oh well, when I come back to Bako for Christmas, you won't recognize me, I've lost weight, my hair all fell out, my teeth look like an Arkansas Razorbacks, my complexion is ruddy, eyes red, disposition sour etc... (in other words, I look like our favorite routine lab supervisor). See you in December! Looking forward to Monday night football! Is that with a funny looking American ball or a proper round one with white and black spots?

Best Regards,
Dan Fargo
G.M. (Going Mad)

(Next issue: Dan's Trip to the Video Store)
Announcing
San Joaquin Geological Society
$500 Award for
Teacher of The Year-Excellence In The Teaching Of Natural Resources in The Earth Sciences

The San Joaquin Geological Society will award $500 in March of 1999 for Excellence in the Teaching of Natural Resources in the Earth Sciences. The winner of this award will also be eligible for consideration by the Pacific Section of the American Association of Petroleum Geologists for their award of the same name.

The award will be a $500 certificate for the winner’s use for their school or for that teacher to attend science conferences or training seminars.

Requirements:
1. Minimum of three full years full-time teaching experience at any level K-12.
2. Teaching at least one unit per year on natural resources. Natural resources are defined as Earth materials used by civilizations past and present such as:
   - Inorganic substances found in the Earth such as water, mineral ores, building stone, aggregate, rocks and sediments.
   - Organic materials such as oil, gas, coal, and soil.
3. Teaching should include scientific study of these resources, for example: their origin, discovery, extraction, and/or historical and present uses. It may also include the preservation of the environment, reclamation, and/or the conservation of resources.
4. Entries will include the a brief description of the teacher’s philosophy of the teaching of natural resources, a description of the unit with outline, Vita, and two letters of recommendation: one from a colleague and one from an administrator.
5. The unit will be evaluated on depth and breadth of concepts (e.g. resource origin, discovery, processing, usage, and reclamation), creativity of presentation, and balanced treatment of information regarding societal need and environmental issues.

Nominations may be made either by the teacher wishing to be considered for the award or by someone familiar with a particular teacher’s performance and credentials. For further information and entry forms contact:

Send Completed Entry Form(s) (See Next Page) to:

San Joaquin Geological Society
Attn: Paul Mock
Chevron USA Production Co.
P.O. BOX 1392
Bakersfield, CA 93302
(805) 395-6499

Entries must be postmarked by February 26, 1999. Winner will be announced by March 24, 1999.
ENTRY FORM
San Joaquin Geological Society
$500 Award for Excellence in the Teaching of Natural Resources in the Earth Sciences

Entrant Information Cover Page (Please print or type all information)
Name ____________________________ School ____________________________
Address ____________________________ County __________ Zip Code ______
City ____________________________ (home) ____________________________ (work) ____________________________
Telephone # (home) ____________ (work) ____________
Current position and grades taught ____________________________
Expected teaching position next year ____________________________
Number of years teaching ____________ Other subjects taught ____________________________
Highest degree and year earned ____________________________ Subject area(s) of degree ____________________________

The above information and information supplied with this entry is, to the best of my knowledge, true and correct. I understand that a $500 award will be made to me for my school for use under my direction only, but can include my attendance at science conferences or training seminars. I am responsible for all taxes due as a result of this portion of the award. If a winner, I hereby give my consent to use my name and photograph for publicity purposes only.
Signature ____________________________ Date __________

The above information and information supplied with this entry is, to the best of my knowledge, true and correct, and represents the teacher's current assignment. I understand that a $500 award will be made to the above named teacher for my school for use under that teacher's direction only, but can include that teacher's attendance at science conferences or training seminars. I also understand that neither my school nor I is responsible for any taxes due as a result of this award. Release time will be given to the above named teacher to attend the award ceremony, if selected.
Administrator ____________________________ Position ____________________________ Date __________

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Subsurface Data - An Endangered Species
By Bob Yeats

It was an unsettling summer for this old oil geologist, working on a NEHRP grant around the oil fields of east LA. I had started out my career in production, developing oil fields, adding to the wealth of my employer, of the community where I worked, of the landowner pruning orange trees next to a new Christmas tree or pumping unit. The majors, led by guys like John Kilkenny and Bob Lindblom, had even figured out how to find and produce oil in downtown L.A., disguising drilling rigs as fake office buildings, complete with shrubbery, making money from beneath the surface at the same time that fortunes were being made above ground, in real estate and commerce.

I watched giant earthmovers plowing up the drilling pads and gathering lines of West Coyote oil field and parts of Brea-Olinda. Small dogtags mark the surface locations of former producing wells. Here and there you can still get a whiff of hydrocarbons, a good smell to an oil guy, but not to tomorrow’s homeowner, who would rather smell sage or honeysuckle in his back yard. Angelenos now think that oil seeps and natural exposures of oil sand are a nuisance, the way ranchers did in the nineteenth century before Ed Doheny and Charlie Canfield found that the sticky brown stuff around L.A. could fuel the soaring economy of the twentieth century and, at the same time, build the great wealth that jump-started a dusty pueblo into becoming a great metropolis.

Ancient cities like Jericho are built on layers obeying the laws of superposition, the oldest dating back thousands of years to the dawn of civilization. Is L.A. marked by layers, too? On the bottom would be the gentle imprint of Indian tribes, overlain by the adobes of Franciscan fathers and Mexican vaqueros, then by the debris of land-hungry Americans, who figured out, not long after their arrival, that there was money to be made beneath the brown, oak-studded hills and barrancas of the LA basin. In the first few decades of the twentieth century, LA played the role that the Persian Gulf does today. A new discovery on the Newport-Inglewood trend could depress the world price of oil! As LA rose on the back of oil and agriculture, it diversified and metastasized until the real-estate value of the land began to exceed the value of the oranges and avocados that were grown at the surface, the cattle that grazed there, and even the oil and gas from far beneath the surface. So now the great earthmovers are covering over the oil-field layer, and archaeologists a thousand years from now will find that this layer is overlain by the "pavement horizon" of subdivisions, shopping malls, and industrial parks. You can already drive through abandoned oil fields and find no trace of them except for a slight fragrance of oil in the evening breeze, a remembrance of times past.

Nature contributed to the layers at Jericho by shaking down the city during massive earthquakes, including the one that would lead to Joshua’s trumpet and the walls that came tumbling down. If the City of LA were as old as Jericho, its walls would have tumbled down at about the same time that Jericho’s did. But LA’s history is too short by a factor of 30, and, except for the San Fernando Valley and Long Beach, its wall-shattering earthquakes still lie ahead.

The oil industry not only built fortunes, it built knowledge as well. The founders of California geology, people like Harold Hoots, W.S. W, Kew, and Ralph Reed, based their insights on detailed field studies, well logs, and stratigraphic sections, and this data base, supplemented by seismic lines, has led to an explosion of concepts that have transformed our understanding of L.A. earthquake hazards and changed the face of geology itself.

In my own geologizing after leaving Shell, I surfed this database thanks to district geologists opening their files to my students and me. The data on which my publications are based are still in filing cabinets in my office, still in active use. So are the files of my contemporaries, eking out a living as consultants, with the memories of the drilling campaigns of mid-century. What will happen to our data after we head for that great outcrop in the sky?

When I embarked on a project as a Shell geologist, I had only to turn to filing cabinets and map cases nearby, holding more than a half century of the institutional memory of my employer. The data were still there in the 1970s and 1980s, and as the economic opportunities diminished, the data availability improved. But finally, the economics drove away those majors who had financed the revolution in geologic information, and names like Shell, Chevron, and Unocal were replaced by Aera, Stocker, Torch, and Nuevo Petroleum. The file cabinets and map cases my students had relied on were in some cases transferred to the new owners, or shipped out to low-rent storage, or taken to the garbage dump.

I know how priceless this data set is. So do the last California-based employees of the major oil companies who created the data, geologists who understand the value of what is at risk, but are at the same time required to defend the storage costs to bean counters.
in Houston to whom California is yesterday's story.
The disappearance of data is like a fire in the University
library. You can save a few treasures, but not many, as
the fire burns out of control. In a few years, economics
will dictate how much of the data will be destroyed, just
as economics played a part in the creation of the data.
And only economics can save it.

The new economics is the understanding of geological
hazards, particularly earthquakes and landslides, that is
enhanced by a better understanding of L.A.'s subsur-
face geology. This includes an understanding of the
influence of basin shape on strong ground motion, or of
whether active reverse faults are steeply dipping or
low-angle thrusts. There is the economics of one of the
largest assemblages of universities on Earth, set in one
of Earth's great natural laboratories.

Saving the data takes money up front, whether it is the
data in oil-company warehouses or in the files of Jack
West, Charlie Hatten, or Bob Yeats. How to transfer it?
Where to put it? How to archive it and make it available
to scientists?

There is one bright hope, and this comes from a city
that was heavily damaged by an earthquake in 1933.
California State University at Long Beach is near one of
the world's great oil fields: onshore and offshore Wilm-
ington. The field is so large and so productive that
producing oil is still the most valuable use of the land.
The Department of Geological Sciences has committed
itself to seeking funds for a research center for subsur-
face geology, with enough money to add the LA subsur-
face data, well histories, logs, dipmeter, paleo, sonic
logs, and geophysical data as part of its own research
library.

Their goal is ambitious: raise 3 million dollars, enough
to fund a professorship and a graduate research assis-
tant to help curate the data. It offers a solution, at least
for L.A., against the disappearance of part of Califor-
nia's heritage.

Despite our individual contributions to creating wealth
through discoveries, most oil geologists are not
wealthy. But some have done very well in terms of
production royalties, and a few geologists have become
multi-millionaires. I hope that those of us who can
contribute in a significant way to this project will do so.
I hope that each of us considers a personal contribution
and, in addition, each of us goes after friends and
business associates, geologists and non-geologists,
who have done well in the oil industry.

3 million dollars is a lot of money to raise. But it's time
to give something back; to contribute to the future.

When I began my career, I could not imagine that an
industry as vibrant as the oil business was in the 1950s
would decline to the subordinate role it occupies in the
LA economy today. As recounted so well by Bill Rin-
toul, 'those of us who "worked" the LA basin will recog-
nize that we were part of a California oil century,
starting with hand-dug wells in the L.A. City field and
ending with John Kilkenny's "asphalt jungle," the devel-

Hey, it was a good ride! Let the next century continue
as an information century begun while wells are still
being drilled, and there are still some sources of data in
LA.

If you want to help, contact Stan Finney of Cal. State
Long Beach at 562-985-8637.

Robert Yeats
Department of Geosciences
104 Wilkinson Hall
Oregon State University
97331-5506
(541) 737-1226
(541) 737-1200 FAX

(Editors Note: See the related article on page 14)

SJGS Says Thanks!
The San Joaquin Geological Society wishes to
thank Jaime Roig for his help in getting the
September Golf Tournament organized. Jaime
did a great job lining up hole sponsors and
making all the arrangements.

In addition, the SJGS thanks Vikki Presmyk for
her efforts in the thankless job of getting the
doors prizes for the barbecue. Vikki’s efforts
were appreciated by the vast number of attend-
ees who won the prizes.

Thanks also go to the many companies who
sponsored a hole for the tournament.
**NEWS FROM THE AFFILIATED GEOLOGICAL SOCIETIES**

**Alaska**

The January 14, 1999 meeting will feature Gil Mull of the Alaska Department of Geological and Geophysical Surveys speaking on “History of the National Petroleum Reserve Alaska (NPRA).

Future meetings include Tom Marshall speaking on “History of North Slope Exploration from the Viewpoint of the State of Alaska”.

Call Agatha Rutka at Arco with reservations for the Jan 14th meeting at (907) 263-4414 or e-mail to: arutka@mail.arco.com.

**Alaska Geological Society**

P.O. Box 101288
Anchorage, AK 99510
Contact: Mark Myers
(907) 263-4205
http://www.seclabs.com/ags

**Coast**

We ran a very successful field trip to Santa Rosa Island the weekend of November 20-22. The trip was lead by CGS members John Wooley, Peter Weigand, and Helmut Ehrenspeck. A total of 46 attended. Everyone had a blast!

We elected Drew Mayerson as our new delegate to the AAPG House of Delegates. He and delegate Joan Barminski, will be attending the AAPG National Convention in San Antonio next spring.

January 19, 1998 - Peter Weigand will speak on “The Conejo Volcanics Origin of Middle Miocene Volcanic Firestorm in Southern California.”

Tuesday, February 16, 1999 will feature Andrea Donnellan, Ph.D. Satellite Geodesy and Geodynamics Systems Group, Jet Propulsion Laboratory speaking on: “GPS Observation of Fault Afterslip and Upper Crustal Deformation Following the Northridge Earthquake”

**AMERICAN LEGION HALL**

**83 S. PALM STREET, VENTURA, CA**

**NORTHBOUND** Highway 101 – Take California Street Exit, West (Left) on Thompson Blvd, North (Right) on Palm.

**SOUTHBOUND** Highway 101 – Take Ventura Ave. Exit, East (Right) on Thompson Blvd., North (Left) on Palm.

Social Hour – 6:00 p.m.
Dinner – 7:00 p.m.
$12 – With Reservation
$17 – Without Reservation
$5 – For Students and K-12 Teachers

Reservations: Please phone the receptionist at: APPLIED ENVIRONMENTAL TECHNOLOGIES 650-1400 by 10 a.m. on the Friday Before the meeting date with your menu selection (Chicken or Beef). Reserve by e-mail to Jim Steele at ttsba@silcom.com.

**Los Angeles**

Upcoming Events in Southern California:

January 27, 1999 Professor Tanya Atwater

February 18, 1999 Dr. Roy Shlemon will speak on Ground Fissures in the Southwestern United States

March 18, 1999 Professor Robert Bakker will speak on Dinosaurs

**Los Angeles Geological Society**

c/o Don Clarke
Dept. of Oil Properties
211 E. Ocean Blvd. Ste. 500
Long Beach, CA 90802
(562) 570-3915

**Northern California**

For information regarding upcoming meetings, contact:

**Northern California Geological Society**

9 Bramblewood Court
Danville, CA 94506-1130
Contact: Dan Day
(510) 294-7530
Northwest

Upcoming meetings:
January 8th John Cassidy PG&E “Case Study on Applying New Rules for Building a Pipeline.

February 12th Susan Payne, Associate Regional Planner, Metro “The Use of Mapping Technology to Develop Standards and Policies.

For meeting reservations please call Shelly Thomas at (503) 848-2947 or Bob Burnham at (503) 226-4211 ext. 4689.

Northwest Energy Association
P.O. Box 6679
Portland, OR 97228-6679
Contact: William Rodger, Jr.
(503) 224-3380

Sacramento

Upcoming meeting:

Noon luncheon meetings are held at the HUNGRY HUNTER RESTAURANT, 450 Bercut Drive, Sacramento.

Sacramento Petroleum Association
P.O. Box 254443
Sacramento, CA 95865-4443
Contact: Scott Hector
(916) 758-5951

San Joaquin

The December 8th dinner meeting saw Scott Hector speak on “Reactivization of Northwest Lost Hills Area”.

December 16, 1998 saw Paul Weimer, AAPG Distinguished Lecturer speak on “Sequence Stratigraphy of Intraslope Turbidite Systems: Model for Exploration and Development”.

The January 12th dinner meeting will see Vic Cherven, consultant speaking on “Geometry of Diesel Contamination Plume Controlled by Burial Fluvial Channel, San Joaquin Valley, California”.

The SJGS web page at www.sjgs.com now contains a link to the California Well Sample Repository: www.sjgs.com/wellsample/index.html. Check it out!

Dinner Meetings are held the second Tuesday of each month (except summer months) at the American Legion Hall, 2020 H street, Bakersfield. The social hour starts at 6:00 p.m., dinner is served at 7:00 p.m. and the talk begins at 8:00 p.m.

San Joaquin Geological Society
P.O. Box 1056
Bakersfield, CA 93302
Contact: Mike Clark
(805) 632-6254

Joseph F. Elliott
Geophysical Consultant

Exploration Management
OFF. (714) 240-1505
international/domestic
Interpretations
synthetics
modeling
26801 Lariat Circle
San Juan Capistrano, CA 92675

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San Juan Capistrano, CA 92675
CELSO RECITAL WILL RAISE FUNDS FOR NEW PSAAPG FOUNDATION

An evening recital of cello music will serve as a prelude to the PSAAPG convention in Monterey this April. It was also serve as an opportunity to help kick off the new Pacific Section AAPG Foundation.

Evelyn Gardett, 16, the grand-daughter of former PSAAPG president Peter H. Gardett, will perform the cello recital on Tuesday evening, April 27. Proceeds from the recital will be donated to the Pacific Section Foundation, which was created by the PSAAPG board in September.

Evelyn, who lives in McLean, VA, has been a cello student since she was 3 years old (beginning on a 1/8-size cello). Pete took an active interest in her musical progress, helping to support her lessons at the Peabody Conservatory Prep in Baltimore, her summer music camps, and helping provide her current instrument, an Italian cello made in 1964.

Evelyn is currently studying with Richard Aaron of the Cleveland Institute of Music. She is home-schooled, allowing time for five hours a day of practice.

She performed at the Kennedy Center last spring with the Washington Chamber Symphony, winning the symphony’s National Young Artists Competition. She has also won the Washington, D.C., Friday Morning Music Club Competition and twice won the McLean Community Center’s Scholarship Competition for Performing Arts. At her recital in Monterey, Evelyn will be accompanied by pianist Miriam Teie of Novato, CA.

Pete Gardett requested that any donations in his name following his death should be made to AAPG charitable activities. When he died suddenly last April in Laguna Beach, Evelyn decided she wanted to help raise such donations.

[The new PSAAPG Foundation was established in September to help provide scholarships and other benefits. It is anticipated that a fund will be created in Pete’s name to be used as determined by the PSAAPG Foundation.]

Exact time and location of the recital on Tuesday evening, April 27, is being arranged and will be noted in our March newsletter.

Save Los Angeles Basin Geology

The project to save the Los Angeles Basin geology is underway. Data has been donated and an area at CSULB is currently in use for the program. Some financial help has been promised but not received.

Tom Wright, Stan Finney and Don Clarke have gotten the Los Angeles Basin Geologic Data Preservation Project (at California State University, Long Beach) underway by contacting several critical individuals. The declining price of oil is reducing the chance for oil company sponsors.

As the oil industry hastens away there is still valuable geology to be done in the Los Angeles basin. It is imperative that the existing work be preserved and made available to future workers. I ask for your help. We need guidance and support.

The foundation and leadership for this effort must come from those who led the way. Many of you have geological and financial assets necessary to guarantee the success of this project. Your help is needed most. Unless we do this future generations of geologists will not be able to build on your valuable work.

Please contact Stan Finney at (562) 985-8637.
EXXON + MOBIL = EXXON

EXXON

Financial:
Net income of $8.5 billion
Revenue of $137.2 billion
Capital employed was $52.9 billion
Capital and exploration expenditures of $8.8 billion
Return on Average Capital Employed of 16.5%

Exploration and Production:
Worldwide daily net production of 1.6 million barrels of crude oil and natural gas liquids and 6.3 billion cubic feet of natural gas
Proven liquid reserves of 6.8 billion barrels including oil sands; proven natural gas reserves of 42.1 trillion cubic feet
Exploration and/or production activities in 30 countries at year-end, 1997

MOBIL

Financial:
Net income of $3.3 billion
Revenues of $65.9 billion
Capital employed was $26.5 billion
Capital and exploration expenditures of $5.3 billion
Return on Average Capital Employed of 13.4%

Exploration and Production:
Worldwide daily net production of 0.9 million barrels of crude oil and natural gas liquids and 4.6 billion cubic feet of natural gas
Proven liquid reserves of 4.1 billion barrels; proven natural gas reserves of 17.0 trillion cubic feet
Exploration and/or production activities in 25 countries at year end 1997

Alaska Geological Society Hears of Volcanic Hazards

Christopher F. Waythomas, Ph.D of the USGS spoke at the AGS November luncheon meeting on "Preparing for the Next Eruption of Augustine Volcano: Hazards Associated with Eruptions of Cook Inlet’s Most Active Volcano".

Augustine Volcano is a 1250 meter-high active stratovolcano situated on a small uninhabited island in southwestern Cook Inlet. The volcano has generated six explosive eruptive episodes since the early 1800’s (1812, 1883, 1835, 1964-65, 1976 and 1986). Augustine volcano is located within a few hundred kilometers of the major population, commerce, and industrial centers of south-central Alaska, and future eruptions pose a threat to the citizens and economy of the region.

Eruptions in 1976 and 1986 began with an initial series of vent-clearing explosions and high vertical plumes of volcanic ash followed by pyroclastic flows, surges and lahars on the volcano flanks. Volcanic ash clouds from these eruptions drifted over North America as far south as Arizona and as far east as Virginia.

Eruptions similar to the historical and prehistoric eruptions are likely in the future. Hazards, in order of importance are: Volcanic ash clouds, Volcanic ash fallout, Pyroclastic flow and surge, Debris avalanche, Lahar and flood as well as Volcanogenic tsunamis.

For more information visit the Alaska Volcano Observatories’ website at: www.avol.alaska.edu.

Photo of Augustine Volcano by B. Yount, USGS, 1986
Deadline for the next issue is: February 10, 1999

Check out the Pacific Section Web Site at:

http://www.west.net/~psaapg

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CHANGE OF ADDRESS, subscription and membership inquiries should be directed to: MEMBERSHIP CHAIRMAN, PACIFIC SECTION Aapg, P.O. Box 1072, Bakersfield, CA 93302.

TO ORDER PUBLICATIONS OF THE PACIFIC SECTION Aapg write to: PUBLICATIONS COMM.: PACIFIC SECTION Aapg, P.O. Box 1072, Bakersfield, CA 93302.
A MESSAGE FROM THE PRESIDENT

Have you registered for the convention yet??????? You should have the convention ANNOUNCEMENT and pre-registration packet for our annual convention in hand. The technical program is an exciting one and the convention site, the beautiful Monterey Bay region, is a wonderful place to spend the last weekend in April. I’m sure that your spouses / significant others will appreciate the program we have arranged for them and support your participation. If you have not received an Announcement let me know immediately, there is still a little time to pre-register!!!!!!

The Petroleum Geotechnology Training Center at the Geology Department of California State University, Bakersfield needs support from all of us. They have $34,000 in hand from the AAPG Foundation, but they need to raise $17,000 in matching funds to activate the final disbursement of $34,000 from the Foundation. The $17,000 must come from local industry and private sources. Your Pacific Section has just donated $5,000 to the Center and promised to help raise the rest. If you have funds to contribute or ideas for fund raising or would just like to help contact either Larry Knauer (805-392-2471) or me (510-234-6214).

The purpose of the Center is to offer students and industry professionals access to and training with the latest and most sophisticated hardware and software available to the petroleum industry. The funds solicited are to be used for the purchase of modern computer hardware. As noted in the January Newsletter, CSUB has already received commitments for donations of over four million dollars worth of the latest petroleum related software.

Congratulations to Bob Lindblom, who will receive AAPG Honorary Membership at the AAPG Annual convention in San Antonio. Honorary Membership is awarded to Bob for many years of significant service to AAPG.

The PS-AAPG nominating committee under Dalton Lockman, Exxon, Anchorage, Alaska, has selected a fine slate of candidates for Section officers for 1999 - 2000. Terry Thompson of Texaco, Bakersfield, will be President of Pacific Section for the next fiscal year (Beginning July, 1, 1999). Kay Pitts of Aera Energy, Bakersfield, and Joan Barminski of Minerals Management Service, Camarillo, have agreed to run for President Elect. Both are currently very active on the Executive Committee and both have a long history of service to Pacific Section. Dale Kunitomi, a consultant, Camarillo, and Jamie Roig, of Berry Petroleum, Taft, have agreed to run for Vice President. Curt Henderson of the City of Long Beach Oil Properties and Harold Syms, Minerals Management Service, Camarillo, have agreed to run for Treasurer; Tony Reid, Occidental, Bakersfield, and Frank Cressy, Consultant, Bakersfield, have agreed to run for Secretary. Bob Countryman, a

(Continued on page 2)
past President of Pacific Section, is running unopposed for PS-AAPG Foundation Board Member. You will find the biographies of the candidates elsewhere in this issue, read them carefully, talk to the candidates and vote!!!!!!

I have just returned from the annual AAPG Leadership conference at AAPG headquarters in Tulsa, Oklahoma. The issues addressed at this conference included discussions of how AAPG might help the membership in the current downturn. We were asked to suggest what products and services AAPG could provide to those professionals in career transitions and self-employed professionals. The suggestions included easing the financial access to the developing Geotechnology Training Centers for mid-career professionals who have been "downsized," and reducing the cost of AAPG short courses. The AAPG Foundation has decided to underwrite short courses. The tuition to all AAPG short courses offered at Section conventions has been reduced to $50.00 and they will be offered at Section meetings even if pre-registration does not cover costs. We are still discussing how to utilize AAPG purchasing power to reduce Section and Local Society insurance costs for conventions and field trips. Since Pacific Section is independently incorporated and the members of affiliated local societies are not required to be AAPG members the issue is difficult, but not impossible according to Craig Blackstock, AAPG legal council.

Mel Erskine
President 1998-99

Jack Clare Remembered

Jack Clare, a longtime Bakersfield area geologist and petroleum industry consultant, died recently of heart failure following bypass surgery. He was 73.

Clare was born in Bakersfield on Nov. 7, 1925, attended Bakersfield High School and graduated from UC Berkeley in 1949 with a degree in geology.

Except for a stint in the Army during World War II and a brief working assignment in Montana, his entire life was spent here.

He was a longtime resident of the Old Stockdale area and could frequently be found at home tending his prized succulents or orchids, which he raised in his own hothouse, said his brother-in-law, Bill Winter.

Most often, however, Clare was working at the southwest Bakersfield office of his company, Argonaut Oil & Gas Consultants, which he operated until his death.

"Coming up with an oil play or a gas play and seeing it drilled and come up with oil and gas, that fascinated him," Winter said. "He just loved his work."

Clare's analysis was responsible for many discoveries over the years, Winter said, especially gas fields in the Sacramento Valley, which became his specialty.

Former Chevron geologist Bob Lindblom, now a petroleum engineering instructor at Stanford University, recalled working two discovery wells in the Sacramento Valley with Clare in 1979. Clare had been hired as the consulting geologist on the wells, in the Grimes and west Grimes gas fields, and was instrumental in making decisions that proved the wells. "These were both significant discoveries in an area that everyone considered to be pretty well developed," Lindblom said.

Clare began his career in 1950 as a geologist with Superior Oil Co., and left Superior after returning from a yearlong assignment in Montana in 1959.

(Continued on page 3)

CCGO Welcomes New Director

At its January 30 board meeting the California Council of Geoscience Organizations welcomed Harrison Phipps of Davis, California, as its first paid executive director. Mr. Phipps has an M.S. in Hydrology/Hydrogeology and also serves as executive director of the Groundwater Resources Association of California.

After hearing Mr. Phipps's work plan for 1999 the CCGO directors went online to admire the organization's new web site at CCGO.org. Adding links to organizational and business members' web sites is a top priority for CCGO's webmaster.
He went into private consulting with Clare and O'Neil Argonaut Oil Co., Winter said.

Clare is survived by his wife of 50 years, Lura, his two sons and daughter and two sisters and their spouses, plus numerous grandchildren, nieces and nephews.

In lieu of flowers, the family requested donations to the American Heart Association, Link to Life cancer group or the Bakersfield SPCA.

Pacific Section AAPG and San Joaquin Geological Society Make Donations in Memory of Jack Clare

The Pacific Section of the AAPG has made $100 donations to both the American Heart Association and the Kilkenny Fund in memory of Jack Clare.

In addition the San Joaquin Geological Society have made a $100 donation to the Kilkenny Fund.
March Meetings of Note

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An Evening of Music

On Tuesday, April 27th, sixteen-year-old cellist Evelyn Gardett will perform a benefit recital to kick off the April convention in Monterey. Donations from the recital will go to the PSAAPG Foundation.

Evelyn is playing the recital in memory of her grandfather, lifetime AAPG member Peter H. Gardett, who died last year. He was especially supportive of her cello studies, which began when she was three. She currently studies with Richard Aaron of the Cleveland Institute of Music. In her recital, she will perform with San Francisco pianist Myriam Teie.

The recital will be held at the Sunset Theater, in the Sunset Center in Carmel, about 10 minutes' drive from the Embassy Suites in Seaside. Curtain time is 8 p.m.

From Seaside, go south on Highway 1 to Carmel, turn right onto Ocean Avenue, the left onto San Carlos St. The Sunset Center is two blocks up, on the east side of San Carlos St., between 8th and 10th Avenues.

Donations to the PSAAPG Foundation will be accepted at the door. If you are unable to attend but wish to make a donation please send your check, payable to PSAAPG Foundation to Joan Barminski, Minerals Management Service, 770 Paseo Camarillo, Camarillo, CA 93110.

Dinner at the Monterey Bay Aquarium

The Pacific Section AAPG Convention Committee has made special arrangements with the world famous Monterey Bay Aquarium to host a strolling dinner on Wednesday, April 28th from 7:00 to 11:00 PM. Diners will have the aquarium all to themselves during this special occasion.

Dinner cost is $55.00 per person with the aquarium fee being waived. Plan to attend this unique experience. For more information contact Mary Bannister or Christine Hickey, both at (831) 757-8835.
Candidates for PSAAPG President - Elect

Joan Roberts Barminsiki
Chief, Production, Development and Reservoir Analysis
Minerals Management Service, Camarillo, CA

Education:
Smith College
B.A., Geology

Experience:
U.S. Geological Survey; California Registered Geologist

AAPG Experience:
1992 Active Member
75-pres. Member AAPG
91-92 President, Coast Geol. Soc.
92-93 Treasurer, Coast Geol. Soc.
94 Printing Chairman, Pac. Sec. Conv.
95-99 Treasurer, Pacific Section
93-99 House of Delegates (Nomination Comm. 95-96; Constitution & Bylaws Comm. 96-98; Officer candidate 99)

Kay Pitts
Reservoir Management Geoscientist, Aera Energy LLC

Education:
BA, Geology, 1977, California State University, Fullerton
MS, Geological Science, 1983, University of Southern California

Employment:
1980-1981 Associate Geologist, Getty Oil Co., Bakersfield
1981-1982 Project Geologist, Getty Oil Co., Bakersfield
1982-1984 Development Geologist Team Leader, Getty Oil Co., Bakersfield
1984-1987 Exploration Geologist Team Leader, Getty Oil/Texaco E&P Inc., Bakersfield
1998-Present Reservoir Management Geoscientist, Aera Energy LLC

AAPG Experience:
1999-2000 Finance Chair, Pacific Section AAPG/ Western Region SPE Convention
1998-1999 Vice President, Pacific Section AAPG
1998-Present, Chair Pacific Section AAPG Committee on Conventions
1997-1998 Secretary, Pacific Section AAPG
1996-1998 Member Pacific Section AAPG Committee on Conventions
1996-1997 Finance Chair, Pacific Section AAPG Convention
1985-1986 Secretary, San Joaquin Geological Society
1983-1985 Membership Directory Co-chair Pacific Section AAPG
National and Pacific Section AAPG member since 1979
California Registered Geologist
Candidates for PSAAPG Vice President

**Dale S. Kunitomi**

Geologic Consultant

**Education:**

Bachelor of Science in Geology, University of California, Los Angeles, 1967
Graduate studies in Geology, University of Southern California, 1971-1976

**Employment:**

GEOLOGIC CONSULTANT, Camarillo, CA., since 1988
CELERON OIL AND GAS CO., Bakersfield and Santa Barbara, CA.
ARGO PETROLEUM CORP, Ventura, CA.
PAULEY PETROLEUM, INC., Santa Barbara and Los Angeles, CA.
SOUTHERN CALIFORNIA GAS CO., Los Angeles, CA.
CITY OF LONG BEACH, DEPT. OF OIL PROPERTIES, Long Beach, CA.

**Registrations and Affiliations:**

Registered Geologist: California, #3135
Rocky Mountain Assoc. of Geologists
Geologic Society of America
American Assoc. of Petroleum Geologists
Pacific Section AAPG
Pacific Section SEPM

Los Angeles Basin Geological Society Vice President, 1976
Coast Geological Society President, 1994

**Jaime H. Roig**

Reservoir Surveillance Geologist, Aera Energy LLC, Bakersfield CA

**Education:**

M. S. Geology, University Southern California
B. S. Oceanography, Humboldt State University, Arcata CA
B. A. Earth Science, Humboldt State College, Arcata CA

**Employment:**

1998-present: Reservoir Surveillance Geologist, Aera Energy, Bakersfield CA
1992-97: Senior Geologist, Berry Petroleum, Taft CA
1978-91: District Geologist, Santa Fe Energy, Bakersfield CA
1974-78: Geologist, Union Oil Company of California, Santa Fe Springs CA

Primary work interest involves geologic control and impact on EOR projects, development and stepout drilling. Worked extensively in the San Joaquin Valley, Los Angeles and Ventura basins. Participated in exploratory activities throughout California.

**Professional Activities:**

National and Pacific Section AAPG
Treasurer SJGS 1997-98
San Joaquin Well Log Society
California Registered Geologist
Candidates for PSAAPG Treasurer

Curtis P. Henderson

Division Engineer, City of Long Beach - Department of Oil Properties

Education:
B.A. Geology 1977, Whittier College

Employment:
1978 - 1981 Manager of routine core analysis, Petroleum Testing Service, Santa Fe Springs, CA
1981 - 1982 Geologist, THUMS, Long Beach, CA
1982 - 1984 Petroleum Engineer Associate, City of Long Beach - Department of Oil Properties, Long Beach, CA
1984 - 1992 Geologist, City of Long Beach - Department of Oil Properties, Long Beach, CA
1992 - 1998 Senior Geologist, City of Long Beach - Department of Oil Properties, Long Beach, CA
1998 - Present Division Engineer, City of Long Beach - Department of Oil Properties, Long Beach, CA

AAPG Experience:
1997-1999 Secretary - Los Angeles Basin Geological Society
National Member: AAPG
California Registered Geologist

Harold E. Syms

Minerals Management Service

Education:
California State University, Northridge, Northridge, California. Completed 34 semester units in graduate level Geology courses.

Employment:
California State University, Northridge, Northridge, California. Graduated August, 1973, B. S. in Geology
1975-1977 Equipment Technician, California State University, Northridge.

Professional Societies:
Member AAPG (since 1974)
1998 Convention Committee, Pacific Section AAPG, Ventura, in charge of Judging of papers
1994 Convention Committee, Pacific Section AAPG, Ventura, Vice Chairman
1988 Treasurer, L.A. Basin Geological Society
1987 President, Southern California Well Logging Society
Candidates for PSAAPG Secretary

Frank Cressy

Consulting Petroleum Geologist

Education:
B.S., 1971, University of California, Riverside
M.S., 1974, Oregon State University

Employment:
1973 - 1981, Exploration Geologist to Project Leader, Texaco, Inc., Los Angeles, CA
1981 - 1986, Exploration Manager/Geological Coordinator, Quintana Petroleum Corp., Bakersfield, CA and Denver, CO.
1986 - Present, Consultant, Bakersfield, CA

Experience:
1995-1996 President, San Joaquin Geological Society
1982-1983 Secretary, San Joaquin Geological Society
1990-1991 Vice President, Pacific Section AAPG
1988-1991 Delegate to AAPG House of Delegates
1997 Co-Editor, Pacific Section AAPG Misc. Pub. #43

Affiliations:
Pacific Section Member AAPG and SEPM
National Member AAPG
Member Kern County Museum Oil Advisory Committee
California Registered Geologist No. 3934

Stephen Anthony (Tony) Reid

Geologist, Occidental of Elk Hills, Inc, Tupman, CA

Education:
Bachelor of Science, Geology, CSU Northridge, 1976
Master of Science, Geology, CSU Northridge, 1979
Certificate in Hydrogeology, CSU Bakersfield, 1995

Employment:
1978-1984: Geologist, Getty Oil Company, Bakersfield, CA
1984-1985: Geologist, Texaco, Bakersfield, CA
1998-present: Geologist, Occidental of Elk Hills, Inc., Tupman, CA

Experience:
Field Trip Co-Chair, 1991 Pacific Section Annual Meeting, Bakersfield
AAPG Delegate, 1994-1998
Convention Program Editor, 1997 Pacific Section Annual Meeting, Bakersfield
President, San Joaquin Geological Society, 1997-1998
Candidate for PSAAPG Foundation Board

Robert L. Countryman

Senior Development Geologist, Chevron USA, Bakersfield, Ca

Education:
1973: California State University, Northridge, B.S. Geology
1977: University of California, Los Angeles, M.S. Geology

Employment:
1977-1979: Research Geophysicist; UCLA, South Pole, Antarctica.
1987-Present: Development/EOR Geologist; Chevron USA, Bakersfield.

Professional Affiliations:
California Registered Geologist #4868.
Member: National AAPG, PS-AAPG & PS-SEPM, GSA.

AAPG Activities:
AAPG House Of Delegates member; representing the SJGS, 1991-present.
SJGS Delegate Chair; 1992-present.
Member of HOD AdHoc Committee on Membership; 1997-present.
Vice-Chairman, AAPG HOD, 1996-97.
Member of HOD Credentials Committee, 1995-96.
Member of HOD Nomination & Election Committee; 1993-94.
AAPG Advisory Council Member; 1997-2000.
AAPG Membership Standing Committee; member; 1996-present.

Vice Chair; 1998 - present.
AAPG Certificate of Merit; 1995

PACSEC AAPG & SJGS Activities:
PS-AAPG Foundation Board Member, 1998- present.
Membership Committee Chair; 1996- present.
Directory Committee Chair; 1996- present.
President/President-elect, PS-AAPG,1993-95.
Vice-President, PS-AAPG,1992-93.
Secretary, PS-AAPG,1990-91.
President/Pres. Elect SJGS,1984-86.
Vice President, SJGS,1983-84.
Editor, SJGS Selected Papers, Vol. 7.
Chair, co-chair, or participant, on numerous PS-AAPG committees, Conventions, and other activities.

Presenting two Dinosaur talks by
Dr. Robert T. Bakker
"Mr. Jurassic Park"

Buena Vista Museum of Natural History

MARCH 20, 1999 (Saturday)
HARVEY AUDITORIUM
Tickets available at VallyTix
Charge by Telephone
805-322-5200

Dinosaurs!
Child/Adult Afternoon Matinee
The Great Dinosaur Art Contest, 2 p.m.
Ticket Prices: $5.50, $10.50, $12.50

Evening Lecture
Hot & Cold Running Dinosaurs, 7 p.m.
The Real Jurassic Park
Ticket Prices: $7.50, $12.50, $15.50
San Joaquin Geological Society

Field Trip to Westside San Joaquin Basin
Friday, March 19, 1999
(March 26 if rain or low attendance due to the SPE Thermal Symposium on the 20th)

When:  8:00 am for field trip
Where: Meet at the parking lot opposite CSUB Well Sample Repository (see map)
Cost:  $50 (includes field guide, transportation, lunch, core display and barbecue dinner)
       $15 (for core display and barbecue dinner only)

Itinerary:
- Turbidite depositional environments in Stevens sandstones at Crocker Canyon
- Structure and Stratigraphy of Potter sandstone at North Midway Sunset oil field
- Modern Texaco oil mine, historic oil shafts, and oil seeps at McKittrick field
- Fractured Monterey shale at Cymric field and Chico-Martinez Creek
- Temblor (the Buttonbed!) and Point of Rocks sandstones (time permitting) at Chico-Martinez Creek
- Core display at CSUB Well Sample Repository

Field Trip Leaders:
- Tony Reid, Occidental
- Mike Ponek, Texaco
- Frank Charron, Texaco
- Neil Livingston, Nuevo
- Jon Kuespert, consultant
- Well Sample Repository

Field trip is limited to 40 participants! (but there is no limit for the barbecue dinner)
Payment must be received to hold your reservation.
NAME: __________________________________________ PHONE: ______________________ FAX: ______________________
ADDRESS: __________________________________________

check one:
_____ field trip, core display, and barbecue (please enclose $50
_____ barbecue and core display only (please enclose $15)

Please make checks payable to SJGS and mail before **Friday, March 15, 1999** to:
San Joaquin Geological Society
Westside Fieldtrip
P.O. Box 1056
Bakersfield, CA 93302

**call Mike Clark at 395-6493 for info**
Alaska

The March 18th meeting topic is to be announced.

April 29th will see Dr. Paul Weimer (AAPG Distinguished Lecturer) speak on “Sequence Stratigraphy of Intraslope Turbidites” in the Aleutian Room of the Hilton Hotel.

The May 20th meeting features Tom Marshall speaking on Statehood Land Selections and Geologic Justification.

Call Agatha Rutka at Arco with reservations for the meetings at (907) 263-4414 or e-mail to: arutka@mail.arco.com.

Coast Geological Society
P.O. Box 101288
Anchorage, AK 99510
Contact: Mark Myers
(907) 263-4205
http://www.seclabs.com/ags

On Tuesday, March 16, Coast Geological Society will present Bruce P. Luyendyk, Dept. of Geological Sciences and the Center for Crustal Studies, UC Santa Barbara, speaking on "The Decrease in Natural Hydrocarbon Seepage Offshore Coal Oil Point, California, Associated with Oil Production."

On Tuesday, April 20, Coast Geological Society will present Larry Gurrola, University of California Santa Barbara, speaking on "Earthquake Hazards in the Santa Barbara Area."

On Tuesday, May 18, Coast Geological Society will present Tanya Atwater, UCSB, and Dale Kunitomi, Geological Consultant, speaking on (their) "Geoadventures in Southern Africa."

Los Angeles Geological Society
P.O. Box 3055
Ventura, CA 93006
Contact: Janice Dependahl
(805) 965-0581 ext. 3316

Coastal Geological Society
P.O. Box 3055
Ventura, CA 93006
Contact: Janice Dependahl
(805) 965-0581 ext. 3316

Los Angeles

Upcoming meetings:

March 17, 1999 SDAG student papers by Jennifer Lewis and Isabelle Sacramento Grilo of SDSU

March 18, 1999 LABGS Meeting Professor Robert Bakker will speak on Dinosaurs

AMERICAN LEGION HALL
83 S. PALM STREET, VENTURA, CA

NORTHBOUND Highway 101 – Take California Street Exit, West (Left) on Thompson Blvd, North (Right) on Palm.

SOUTHBOUND Highway 101 – Take Ventura Ave. Exit, East (Right) on Thompson Blvd., North (Left) on Palm.

Social Hour – 6:00 p.m.
Dinner – 7:00 p.m.
$12 – With Reservation
$17 – Without Reservation
$5 – For Students and K-12 Teachers

Reservations: Please phone the receptionist at: APPLIED ENVIRONMENTAL TECHNOLOGIES 650-1400 by 10 a.m. on the Friday Before the meeting date with your menu selection (Chicken or Beef). Reserve by e-mail to Jim Steele at ttsba@silcom.com.

Los Angeles Geological Society
P.O. Box 101288
Anchorage, AK 99510
Contact: Mark Myers
(907) 263-4205
http://www.seclabs.com/ags

April 20, 1999 SDAG/SME meeting Steve Bauman will speak on the Glamis Imperial Gold Mine

April 21, 1999 LABGS Meeting Professor Paul Weimer
The Thursday March 18, 1999 LABGS Meeting will be held at the Long Beach Petroleum Club at 11:30 am. The cost is $17.00 for the buffet lunch. Students pay $6.00 for the buffet lunch. Please make your reservations with Curtis Henderson at (562) 570-3937 or by e-mailing him at cuhende@ci.long-beach.ca.us by Tuesday, March 16, 1999. The Long Beach Petroleum Club is located at 3636 Linden Ave. in Long Beach. It is just north of the 405 Freeway between Long Beach Blvd. and Atlantic Ave.

Los Angeles

Upcoming meetings:

March 17, 1999 SDAG student papers by Jennifer Lewis and Isabelle Sacramento Grilo of SDSU

March 18, 1999 LABGS Meeting Professor Robert Bakker will speak on Dinosaurs

Northern California

NCGS Winter-Spring 1999 Speaker Calendar

March 10, 1999 John Sciacca, IT Corp. "Hydrostratigraphic Analysis of Complex Fluvial Depositions in California"

April 23, 1999* Paul Weimer, University of Colorado "Sequence Stratigraphy of Intraslope Turbidite Deposits" AAPG Distinguished Lecture Chevron Park, San Ramon
May 12, 1999 Barbara Romanowicz U.C. Berkeley "Long Range Interaction Between Earthquakes at Plate Margins"

June 23, 1999 Gary Greene Moss Landing Marine Lab "Fluid Seeps and Tectonics of Monterey Bay Region"

* Date Unconfirmed

All talks except the April AAPG Distinguished Lecture will be held at the Orinda Masonic Center, 9 Altarinda Road, Orinda, CA. at 7:00 pm. Cost is $5.00

The Northern California Geological Society wishes to thank Chevron Overseas Petroleum, Inc. for its generous funding of the AAPG Distinguished Lecture Program. The local AAPG affiliates like the NCGS arrange for these prominent geologists chosen by the AAPG to lecture on topics of geological interest to their members. Chevron's donation helps to defray the cost of airfare, food, and lodging for the lecturers who speak to the NCGS each year. We sincerely appreciate Chevron's continuing fiscal support of this superb program, and for allowing us to use their Chevron Park facility to host these presentations.

Northwest

The March 12 meeting features Richard Bach, partner with Stoel Rives, speaking on "Environmental Due Diligence Regarding the Sale of PacificCorp's Centralia Power Plant". The meeting will be held at Portland General Electric's downtown Portland headquarters.

April 9 will see Doug Boleyn, P.E. and President of Cascade Consulting, speak on "Green Power", showing us how to choose our own energy source. This meeting will also be held at PGE headquarters.

May 14 sees the society returning to the MAC club for a luncheon and talk by Mark Seedall, Duke Energy's Director of Business Development. Mark will speak on an "Overview to New Power Generation in California".

For meeting reservations please call Shelly Thomas at (503) 848-2947 or Bob Burnham at (503) 226-4211 ext. 4689.

Northwest Energy Association
P.O. Box 6679
Portland, OR 97228-6679
Contact: William Rodger, Jr.
(503) 224-3380

Sacramento

Upcoming meeting:

On March 17, Mr. Frank Golino, Sales Engineer with DOWELL, will speak on "Recent Advances in Coiled-Tubing Services Offered By DOWELL"

Noon luncheon meetings are held at the HUNGRY HUNTER RESTAURANT, 450 Bercut Drive, Sacramento.

Sacramento Petroleum Association
P.O. Box 254443
Sacramento, CA 95865-4443
Contact: Scott Hector
(916) 758-5951

San Joaquin

March 9 will see Karla Tucker, Chevron Production Technology, speak on "Capturing Geology Accurately in Alternative Reservoir Modeling - An Example from West Coalinga Field, CA."

Dinner Meetings are held the second Tuesday of each month (except summer months) at the American Legion Hall, 2020 H street, Bakersfield. The social hour starts at 6:00 p.m., dinner is served at 7:00 p.m. and the talk begins at 8:00 p.m.

San Joaquin Geological Society
P.O. Box 1056
Bakersfield, CA 93302
Contact: Mike Clark
(661) 395-6493

Goode Exploration Management
International/domestic Office: (949) 240-1505
Interpretations: synthetics 26801 Lariat Circle
modeling San Juan Capistrano, CA 92675
"Geology of the Midway-Sunset Oil Field and Adjacent Temblor Range"

Pacific Section AAPG Guidebook #75 is a 425 page, comprehensive look at the largest producing oilfield in the lower 49 states. It contains color images of maps, cross sections, logs and core photographs. A large (1:48,000) surface geology map is included. Midway-Sunset is one of several billion barrel oil fields located around Bakersfield, California, U.S.A. Steam injection and horizontal drilling are a big part of the activity at Midway-Sunset. Projects currently underway in this field could easily push its production over 200,000 bopd.

This field guidebook was originally published in 1996 and reprinted in 1997. This third reprinting in 1999 includes only 60 copies available for public sale. If interested in obtaining a copy please send a check in the amount of $205.00 to:

Pacific Section AAPG Publications P.O. Box 1072 Bakersfield, CA 93302

For additional information contact:
Larry Knauer (661) 392-2471 (w) (661) 391-4303 (f)
knauelc@texaco.com

Visit our booth at the PSAAPG Annual Convention in Monterey!!!

PSAAPG Honorary Membership Awardees Announced

Pacific Section of the American Association of Petroleum Geologists will award the following members Honorary Membership at the 1999 Pacific Section All Convention Luncheon, Thursday, April 29, at 12:00 noon, at the Embassy Suites on Monterey Bay, Seaside, California.

John E. "Jack" Clare (Deceased)
Larry Knauer
Dan E. Pasquini
Miles W. "Mike" Pepper

Professor John W. Harbaugh of Stanford University will be given the award of Distinguished Educator at the same ceremony.

Please join this distinguished list of honorees at the All Convention Luncheon.

PUBLIC MEETING NOTICE

Friday, April 30, 1999 at 5:00PM at the Embassy Suites Hotel, Monterey, CA

Pacific Section AAPG Executive Committee Meeting

The Annual Business Meeting of the Pacific Section of the American Association of Petroleum Geologists will be held in association with the Annual Convention of the Pacific Section at the Embassy Suites Hotel in Monterey on Friday, April 30, 1999, at 5:00 pm in the Del Monte Room. All Pacific Section members are invited to attend.

At the conclusion of the Pacific Section meeting there will be a meeting of the Pacific Section Foundation at the same location.
CONTRIBUTE TO THE ASBOG EXAMINATION

Beginning in spring 2000, the California Board of Registration for Geologists and Geophysicists will require each applicant to pass the National Association of State Boards of Geology (ASBOG) examination in order to be licensed as a Registered Geologist in California. The examination consists of two parts, Fundamentals of Geology (FG) and the Practice of Geology (PG). The FG is designed to test skills acquired in an academic setting. The PG emphasizes skills and knowledge acquired in the geological profession.

The Board requests licensees to submit questions for evaluation and submittal to ASBOG for possible inclusion in the FG or PG examination.

If you would like to submit questions, please request the form by writing to the Board at: 2535 Capitol Oaks Drive, Suite 300A, Sacramento, CA 95833.

TECHNICAL EXPERTS NEEDED

The Board must increase the number of technical experts available to review enforcement cases. Cases may include negligence, incompetence, misrepresentation and unlicensed practice. Expert opinion is required to define technical adequacy and establish boundaries of professional conduct and standard of practice.

Technical experts must be licensed in California and, in some cases, may need a specialty certification. If a case results in a hearing, an expert may be called to testify in court as the Board’s expert witness. The Board pays its technical experts an hourly rate for review and testimony.

If you are interested in becoming a technical expert for the Board, please send a curriculum vita describing your experience and areas of expertise (e.g., landslides, fault investigations, seismic hazards, groundwater, etc.) to Paul Sweeney, Executive Officer.
Deadline for the next issue is: April 10, 1999

Check out the Pacific Section Web Site at:
http://www.west.net/~psaapg

NEWSLETTER of the Pacific Section - American Association of Petroleum Geologists is published bi-monthly by the Pacific Section. Material for publication, requests for previous copies, and communications regarding advertising costs should be addressed to the editor - ALLEN BRITTON, Core Laboratories, Inc., 3430 Unicorn Road, Bakersfield, CA 93308.
E-mail: corebak@ix.netcom.com

CHANGE OF ADDRESS, subscription and membership inquiries should be directed to: MEMBERSHIP CHAIRMAN, PACIFIC SECTION AAPG, P.O. Box 1072, Bakersfield, CA 93302.

TO ORDER PUBLICATIONS OF THE PACIFIC SECTION AAPG write to: PUBLICATIONS COMM.: PACIFIC SECTION AAPG, P.O. Box 1072, Bakersfield, CA 93302.

PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
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(661) 326-5506
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(805) 389-7556
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(907) 564-3611

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(562) 570-3915
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(503) 224-3380
Sacramento Petroleum Assoc. SCOTT HECTOR
(916) 758-5951
San Joaquin Geological Society MIKE CLARK
(661) 395-6493

NEWSLETTER
Pacific Section A.A.P.G.
Post Office Box 1072
Bakersfield, CA 93302
A MESSAGE FROM THE PRESIDENT

1998-99 REPORT OF THE PACIFIC SECTION
AAPG

The Pacific Section, along with its seven affiliated societies, continues to enjoy robust support from its members in spite of low oil prices during most of our fiscal year. Membership and member participation in Section events continue to increase. Our Section Treasurer, Joan Barminski, was a candidate for secretary of the AAPG House of Delegates. Robert Lindblom, a former President of Pacific Section and currently our Honors and Awards Chair, received Honorary Membership from AAPG.

Financial Statement
Pacific Section is financially healthy. As of April 30, 1999, the balance in our restricted and operating funds totals about $93,000. This does not include income from our annual convention for which preliminary accounting figures indicate a substantial financial success.

Membership
Membership continues to increase, as of April 25, 1999, the total membership was 866 (including 74 delinquent). Comparable figures from last year are 851 members with 62 delinquent. Our membership fee remains $12.00 per year, $3.00 of which is rebated to a member’s local society. Dues cards mailed to members identify potential donation categories (Bibbee Foundation, K-12 Program, California Core Repository, etc). Donations on dues cards are comparable to last year at $2837.00. At our Monterey Bay convention in April we provided our members with a new Membership Directory.

'99 Convention
The 1999 annual convention was held April 28-30 at the Embassy Suites on Monterey Bay in Seaside, California. It was sponsored by the Monterey Bay Geological Society, a non-affiliated society. The General Chair was Professor Gary Greene of the Moss Landing Marine Laboratories, who is also President of the Monterey Bay Geological Society. Four field trips, four technical short courses, one K-12 teacher course (Rocks in Your Head) and thirteen technical sessions were scheduled. One field trip and one short course were canceled due to lack of registration. Continuing a national trend, poster presentations made up nearly half of the program. A major international symposium “Fluid seeps on active continental margins” hosted by Professor Casey Moore of UC Santa Cruz was an outstanding success and included participants from Russia, China and Germany. A symposium volume was published by Pacific Section. The meeting was jointly sponsored with the Pacific Sections of SEPM, SEG and SPWLA. Our annual convention is the source of a substantial portion of our operating budget; a preliminary financial report on the convention indicates a net income of over $30,000.

(Continued on page 2)
Other Activities

Newsletter - The "Pacific Section Geologist" (newsletter) mails 925 copies six times a year. Approximately half of the cost of $880 per issue is covered by ads.

Student membership program - Students who join the Pacific Section for $12.00 are automatically signed up as Student Members of AAPG. Eight students have taken advantage of this offer so far this fiscal year.

98 Convention - The convention, an outstanding success, was run by the Coast Geological Society in Ventura. Jon Schwalbach of Exxon was the General Chair. We had nearly 600 registrants, most events - field trips and short courses - were well-subscribed and financially successful. Net income of approximately $35,000 was distributed to the participating societies per our standard formula.

75th Anniversary Convention - Our next convention will be run by the Los Angeles Basin Geological Society at the Westin Hotel in Long Beach, California, on June 18-23, 2000. It will be a joint meeting with the local Society of Petroleum Engineers and the Convention Co-Chairs will be Don Clarke, PSAAPG, and Glenn Swanson, SPE. This will be Pacific Section's 75th anniversary convention.

Contributions - Pacific Section has distributed over $25,000 in contributions to geologic and educational organizations so far this fiscal year.

Web site - Our web site http://psaapg.org now contains our publications list and order form in addition to information on Pacific section activities. We intend to post our Millennium 2000 convention pre-registration form and allow e-mail registration.

AAPG Distinguished Lecture - The section helps to reimburse affiliated societies for expenses associated with an AAPG Distinguished Lecture of their choice.

Publications - The Section has produced three new publications, MP 45 Geology of the Northern Channel Islands, MP 46 Structure and Petroleum Geology of the Santa Barbara Channel and GB 76 Late Cenozoic Fluid Seeps and Tectonics along the San Gregorio Fault Zone in the Monterey Bay Region, California. In addition, we have reproduced two popular guidebooks GB 75 Geology of the Midway-Sunset Field and Adjacent Temblor Range and GB 66 Geologic Guidebook to Point Reyes.

Teacher of the Year sponsorship - Pacific Section sponsored a Teacher of the Year Award at our Monterey Bay convention. We have offered each local society $200 seed money to support their candidates. Peggy Lubchenco, who developed and teaches an exceptional earth science program at La Colina Junior High, Santa Barbara, California, was the winner of Pacific Section's annual K-12 Earth Science Teacher of the Year Award in Monterey. She will be nominated for the AAPG Award in New Orleans.

Community outreach - We spent over $3,000 sponsoring events throughout the community. The Section continues to support Science Fairs, Teacher Education, Community Energy Night and an off shoot of the Denver Earth Science Project, the Comet Program at USC.

Texaco Scholarship - Texaco Production Operations, California Assets, has offered four $1,000 Scholarships to West Coast Universities through Pacific Section. AAPG Foundation will manage the funds.

CSUB Geotechnology Training Center - California State University Bakersfield, with financial support from the AAPG Foundation, Pacific Section, and local donors has established a Geotechnology Training Center. Pacific Section has contributed $5,000 towards this project, and is continuing to work with CSUB to enlarge the scope.

Pacific Section Foundation - The Section is working to establish a tax-free foundation to steward our contributory funds. The project seems both more complex and expensive than it initially appeared, but we hope to complete it this summer.

Kilkenney Scholarship Fund - The John Kilkenney Memorial Scholarship fund continues to attract donations, both through Pacific Section and directly to the AAPG Foundation. Dues card donors will add at least $540 this fiscal year.

Mel Erskine
President 1998-99
ARE YOU A SPOUSE OF AN OIL INDUSTRY EMPLOYEE?

Three groups are available for you to join in Bakersfield. They are Association of Petroleum Wives (APW), Concerned About Petroleum (CAP) and Engineers’ Wives of the Petroleum Industry (Engineers’ Wives).

**Association of Petroleum Wives (APW)**

APW has been in existence for 50 years. This organization is an international, not-for-profit charitable and social group. The goal of APW is to promote friendship and moral support between women whose husbands are associated with the petroleum industry.

Since 1948, APW has raised funds for local charities selected annually by the membership. Recently, APW’s fund raising activities have included charity bunco and working with the American Petroleum Institute’s (API’s) golf tournament. Some charities that have benefited from APW are the Kern Child Abuse Prevention Council, Bakersfield SPCA, Alliance Against Family Violence and Sexual Assault and M.A.R.E. Horse Riding Therapy program.

APW supports a wide range of social activities. There is something for everyone. Popular activities include arts and crafts, bunco and Couples Dine Out as well as other couples events. Other activities that might be offered during the year are a book club, golf scrambles and an investment club.

General meetings for members and guests are the third Tuesday of each month. To meet the various needs and schedules of members, there are day and night meetings. Meetings are held at a variety of Bakersfield locations such as the Petroleum Club. Meetings are informative and include demonstrations and speakers covering many different topics such as: nutrition, fitness and hair and skin care. Start the year 2000 off right on January 18th with Sherri Bergamo who will be discussing current women’s health issues.

Membership is $25 per year. For membership information, please contact APW’s president Karilyn at 587-1262.

**Concerned About Petroleum (CAP)**

Are you concerned about petroleum? With today’s oil prices, CAP members are! CAP began in September 1976 when three women were discussing the problems of the oil industry over a cup of coffee.

CAP’s founders felt that oil wives could become good public relations representatives. When CAP began, public relations problems plagued the oil industry. It seemed important for the wives to help any way they could. Unfortunately, they didn’t know very much about the oil industry. CAP set out to provide women connected with the oil industry opportunities to learn more about it. Later, CAP’s influence expanded as women from outside the petroleum industry also began attending meetings.

Each year since 1976, CAP presidents have endeavored to present programs that educate and make CAP members and their families more effective participants in the political processes that are determining the future of the oil industry in the United States. CAP believes that every member can make a difference. The more information CAP members have, the more effective advocates they become. CAP is represented on the boards of other organizations that help promote and support the petroleum industry. They are the Kern County Museum (oil museum), Derricks to Desks (petroleum workshop for teachers) and Community Energy Night.

Luncheon meetings are generally held the first Thursday of each month at members’ homes or Bakersfield restaurants. A social begins at 11:30 a.m. with lunch starting at 12:00 p.m. At most meetings, there is a presentation by a speaker that has close ties to the petroleum industry. Past presenters include: Bill Rintoul (author, correspondent and oil columnist for the *Bakersfield Californian*), Jerry Hoffman (President of Berry Petroleum), Red Adair (famed wild well control expert) and Don Romine (General Manager of Occidental of Elk Hills, Inc).

CAP members also enjoy field trips. Field trips have included: the San Andreas Fault, Maricopa Brea Pits, Santa

*Continued on page 6*
### August Meetings of Note

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Scholarships Available
for Pacific Section AAPG Universities
from Texaco
for the 1999-2000 school year

Undergraduate and graduate level students studying geology and/or geophysics may apply for a $1000 grant from Texaco. Application forms will be mailed out to all qualified colleges and universities in September. To request an application or to obtain additional information please contact:

Terry Thompson
Texaco Worldwide Exploration and Production
P.O. Box 5197X
Bakersfield, CA 93388
Fax: 661-392-2897; Office: 661-392-2464
E-mail: thomptw2@texaco.com

National AAPG Sets Candidates for Election

Lyle Baie, Executive Director of the American Association of Petroleum Geologists has released the list of next years candidates for AAPG National offices. Please note that Pacific Section AAPG member Don Clarke is a candidate for the office of Treasurer. Congratulations to Don and best wishes in the coming campaign year.

The other officer candidates are:

President-Elect  
Lee C. Gerhard  
R.R. Robbie Gries

Vice President  
Brenda K. Cunningham  
Ronald A. Nelson

Treasurer  
Donald D. Clarke  
Edward B. Picou

California Well Sample Repository Joins The Net

This summer the California Well Sample Repository opens its Web Page at http://www.wellsample.org. Presently, the site contains complete catalog files for Lithologic, and Micro fossil samples, Paleo. reports, the available log files from the Humboldt B. & M. and the available Mt. Diablo B. &M. log files.

Also available are the operation procedures and policies, as well as the map codes used for the geologic age and stratigraphic interval of the samples in our collections. In the future the catalog will be updated quarterly as new samples and log files for Mt. Diablo and S.B. B. & M. are added to the collections. In addition, a calendar of events involving the Repository will be started.

So log on and looks us over.

Russ Robinson – Curator
Email rrobinson@csub.edu
Paula Union Oil Museum, THUMS Island Operation in Long Beach and Elk Hills.

New members are always welcome to join CAP. Members are predominately women, however the group is open to both men and women who are concerned about petroleum. Membership is $20 per year. Please call CAP’s president Patty at 665-2315 for more information.

**Engineers’ Wives of the Petroleum Industry (Engineers’ Wives)**
The Engineers’ Wives was formed in 1961 mainly to help support Pyle’s Boys Camp. This camp was founded by oil industry executive Bob Pyles in the 1930’s. Each summer, the camp, located in the Sierra Mountains, provides a free nature experience for at-risk boys in need of extra attention. Pyle’s Boys Camp is primarily maintained by the petroleum industry. Engineers’ Wives raise money to help promote the camp with monthly raffles, garage sales and charity dinners for members. Ethiopian and New Orleans theme charity dinners are examples of how members raised money to help support the camp last year.

**Engineers’ Wives was also formed to provide wives, who transferred to the area with their husbands, with social contacts. Any wife whose husband has an engineering degree and works in the petroleum industry is welcome to join Engineers’ Wives.**

Luncheons are on the first Tuesday of each month. They are held at a variety of locations. There is a social at 11:30 a.m. and lunch begins at 12:00 p.m. Guest speakers provide presentations. This past year, wives greatly enjoyed a program given by the Bakersfield Museum of Art. They also experienced Game Day, where members played bridge and bunco and shared a home cooked meal. This popular event, offered once a year at a chosen member’s home, is held on a regular meeting day.

Dues are $20 per year. Please call the president of Engineers’ Wives, Jo Anne, at 871-9485 for further membership information. Spouses of industry retirees are always welcome.

---

**CAREER OPPORTUNITY**
The Conservation Committee of California Oil and Gas Producers (CCCOGP), a non-profit organization that administers a voluntary program of production and conservation control, is seeking an Executive Director to manage a 200 member oil and gas producers committee. Qualified applicants should have a minimum of 15 years of oil and gas experience in production and/or exploration operations, preferentially in California; possess demonstrated communication and organizational skills; and have at a minimum a bachelor’s degree in geology, petroleum engineering, or engineering equivalent.

Send resume and salary history to:

CCCOGP, 5300 Lennox Avenue, Suite 302
Bakersfield, California 93309.

The filing period ends August 20, 1999.

All replies will be held confidential.

---

**WELL INFORMATION AND INSTRUMENTATION**

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661-838-7978 CELLULAR
lcollins@nobors.com EMAIL

**Petroleum Data Research**

Janet Schroeder
Consultant

13264 Elmrock Avenue
Moorpark, CA 93021
Phone/Fax (805) 523-3097
San Joaquin Geologic Society
Annual Fall Barbecue and Golf Scramble

WHERE: Kern River Golf Course and Picnic Area (next to Lake Ming)
WHEN: Friday, September 10, 1999

FAMILY BARBECUE AND RAFFLE

Place: Kern River Picnic Area (next to K.R. Golf Course) Cost: RSVP - $15.00 At the Gate - $18.00
Time: Attitude Adjustment - 5:00 p.m. Dinner - 6:00 p.m. Students: $7.50 Children - $5.00

Please Circle Your Affiliated Societies  SJGS  SEG  SJWLS

BBQ Questions? Please contact: Cynthia Huggins @ (661)392-2280 or huggica@texaco.com
BBQ Reservation Deadline September 7, 1999 by 5:00 p.m.

GOLF TOURNAMENT
Foursome or Individual Sign-up Place: Kern River Golf Course
Time: 8:00 a.m. (earliest tee time)
Cost: $40.00 per person includes: (green fees, cart, lunch, & prizes)

Golf Questions: Contact Jaime Roig @
AERA, (661)665-5942

RESERVATION DEADLINE: September 2, 1999

Name:_________________________ Please send form with check:
Total Golf: $__________ San Joaquin Geologic Society
Total BBQ: $__________ P.O. Box 1056
Grand Total: $__________ Bakersfield, CA 93302

HOLE SPONSORSHIPS ARE AVAILABLE!!!! CALL Mark Wilson @ (661)392-3047
SJGS Holds Fund Raiser for Kern County Museum

The San Joaquin Geological Society recently held a fund raising BBQ at Pioneer Village in Bakersfield to benefit the oil displays at the Kern County Museum. Over 100 people turned out to sample the food (prepared by Core Lab), spirits (provided by Lengthwise Brewing Company, 6000 Schirra Ct, Bakersfield (661) 836-2637) and 100 degree heat. The benefit raised $500 for the Museum.

(l-r) Gene Tripp, PSAAPG Secretary Frank Cressy and SJGS President Mark Wilson had a great time at Pioneer Village.

(l-r) Dave Fowler, Bob Williams and Dean VanZant

(l-r) Dave Fowler, Mike Minner, James Melland and Phil Ryall sample some of the special beer donated by Lengthwise Brewing Company.

(l-r) Karen Whittlesey, Liz Lohman, Hana Baker and Bill Cooper.

Phillip Witte and Mike Clayton

Tony Reid and his family attended the event.
New Publication!

Published for the 1999 Pacific Section Convention

“Late Cenozoic Fluid Seeps and Tectonics along the San Gregorio Fault Zone in the Monterey Bay Region, California”

This 156-page volume contains road guides to two field trips plus five additional papers. Color plates and a color cover complete this very interesting new addition to the PSAAPG’s collection of informative publications dealing with West Coast geology.

To order:
Send a check for $25.00 made out to:
Publications
Pacific Section AAPG
P.O. Box 1072
Bakersfield, California 93302

For information contact:
Larry Knauer
(661) 392-2471
e-mail: knauelc@texaco.com
Summary of Donations to the Various PSAAPG Funds Over the Years

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The Pacific Section AAPG wishes to thank the donors listed below for their contributions during the 1998-99 year. Your generous contributions help make possible the publications and maps we release as well as the honors and scholarships awarded throughout the year.

List of Donors 1998-99

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James R. Weddle  
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Kenneth Williams  
Merril Wright  
Robert S. Yeats
Pacific Section Installs New Officers For The 1999-2000 Year

The July 13, 1999 meeting of the Executive Committee of the Pacific Section AAPG featured the installation of our newly elected officers for the 1999-2000 year.

Terry Thompson took over the reigns as President from Mel Erskine. Mel moved into the position of Past-President.

Kay Pitts moved over to the President-Elect post from her previous position of Vice President.

Dale Kunatomi is our new Vice President.

Harold Syms is taking over the position of Treasurer from Joan Barminski, who served ably for two full years.

Frank Cressy has eased into the position of Secretary, taking the reigns from Cynthia Huggins.

Our thanks go out to Dalton Lockman who served as our Past-President during the 1998-99 year.

"We are not going to let a little water (TSUNAMI) spoil our fun. See you in Long Beach for the 2000 Pacific Section Convention"

We are sorry Don Clarke (LABGS President) missed the convention in Monterey, but we understand he was drowning in work. We will see a lot of Don next year, as he is the General Chairman for the Pacific Section’s Annual Convention in Long Beach. The year will be 2000 and the Pacific Section will be 75 years old.
Alaska

Check the AGS website for upcoming meeting information.

Call Agatha Rutka at Arco with reservations for the meetings at (907) 263-4414 or e-mail to: arutka@mail.arco.com.

Alaska Geological Society
P.O. Box 101288
Anchorage, AK 99510
Contact: Mark Myers
(907) 263-4205
http://www.seclabs.com/ags

Coast

On Tuesday, June 15, 1999, the Coast Geological Society presented:

Richard Behl, PhD, Department of Geological Sciences, California State University at Long Beach spoke on: "The Monterey Formation Revisited: Discoveries, Hypotheses, and Controversies"

Next Meeting: September 21, 1999: Ed Keller, PhD, Speaking on: "Active Folding of the Santa Barbara Piedmont: Rincon Point to Ellwood Beach."

Next September's speaker, Dr. Keller, has also agreed to lead a field trip early next Fall to visit the features he'll discuss in his talk, so watch for notice of that trip to come later this summer!

Reservations:
By Web Browser (On-Line)
By E-mail, Attn, Jim Steele at jim.steele@tetratech.com
(Please RSVP via E-mail if possible)
By phone, Sinclair Well Products and Services, Attn. Lance Lawhon at (805) 653-7975
By FAX, at (805) 653-7452

Los Angeles

Upcoming meetings:

On Wednesday July 21, 1999 Dr. Edward Marks spoke on "Hydrostratigraphy and Aquifers of Three Wells in Orange County, California".

Upcoming Meetings:
August, 1999 No LABGS meeting. - Have a good summer!

August 18, 1999 SDAG, John Peterson will give a San Diego Water Resources Update, (619) 258-4911.

September 15, 1999 LABGS, Prof David D. Jackson of UCLA: Southern California Earthquakes: How Big How Often?

Northern California

Tentative upcoming meetings include:

Richard G. Blake:
"Evidence of an Ancestral Asteroid Impact Scar in the Sacramento Valley Area, California"

Dr. David L. Jones:
"Tectonostratigraphic Terrane Analysis in California Geology: History and Future Trends"

Andrei Sarna-Wojcicki:
"Volcanics of the Bay Area Region Field Trip"

Specific dates to be announced.

All talks will be held at the Orinda Masonic Center, 9 Altarinda Road, Orinda, CA at 7:00 pm. Cost is $5.00
Northwest

The Northwest Energy Association is sponsoring a symposium slated for Friday, September 24, 1999 from 9:00 a.m. to 4:00 p.m. at the World Trade Center in Portland, OR.

Topics will include Natural Hazards-Risk Reduction and Management.

The purpose of the symposium is to inform and educate on the increasing probability and risk of "Natural Hazards" in the Northwest.

For meeting reservations please call Shelly Thomas at (503) 848-2947 or Bob Burnham at (503) 226-4211 ext. 4689.

Northwest Energy Association
P.O. Box 6679
Portland, OR 97228-6679
Contact: William Rodger, Jr.
(503) 224-3380

Sacramento

On July 21st, Hal Bopp, District Deputy and Dave Clark, Associate Oil and Gas Engineer of the District 4 Division of Oil, Gas and Geothermal Resources spoke on the “East Lost Hills Blowout”.

Noon luncheon meetings are held at the HUNGRY HUNTER RESTAURANT, 450 Bercut Drive, Sacramento.

Sacramento Petroleum Association
P.O. Box 254443
Sacramento, CA 95865-4443
Contact: Scott Hector
(916) 758-5951

San Joaquin

San Joaquin Geological Society will have a special luncheon meeting Thursday, August 12, 11:30, at the Sheraton Four Points hotel ballroom, 5101 California Ave, Bakersfield. The guest speaker is Brian Casey who will speak on "An Occidental View of Elk Hills- an update". This initial presentation of this work received the "best of convention" award at the Pacific Section AAPG meeting.

Cost is $15 with reservations, $18 without. Please contact Cynthia Huggins, (661) 392-2278, or e-mail to: huggica@texaco.com

San Joaquin Geological Society
P.O. Box 1056
Bakersfield, CA 93302
Contact: Mark Wilson
(661) 392-3047
http://www.sjgs.com

Association for Women Geoscientists Awards Scholarships

The AWG has announced the 1999 Chrysalis Scholarship winners. The financial aid is given to exemplary women graduate students in the geosciences who have experienced an interruption at some time in their formal education.

Natalia Bryxina was presented a $750.00 scholarship.

Connie Knight was presented a $750.00 scholarship.

Rachel Grover was presented a $500.00 scholarship.

Maryanne Malinconico was presented a $250.00 scholarship.

Jennifer Pierce was presented a $250.00 scholarship.
How it Used to Be
(According to Senteur de Boue)

Back when Senteur de Boue’s ancestors lived in France, things were a bit different than they are in Bakersfield today. As it turns out, many of our cherished customs and sayings date back to those times when life was simpler, more practical, and perhaps not as tidy as today. Below are a few examples imparted to us by Senteur himself.

Most folks had **June weddings** because they took their yearly baths in May, and they were still smelling pretty good by June, which was a time of leisure after the spring plantings had finished. However, a June wedding was still a couple of weeks past that annual bath, sometimes a month past, and most folks were starting to smell a bit on nuptials day. Thus, wise brides took the precaution of carrying **bouquets of flowers** to hide the B.O.

Baths in those days required considerable effort to fill a large tub with hot water, for the water had to be carried into the house by a bucket that was heated on a wood or coal fire. The man of the household had the privilege of enjoying the nice clean bath water first. His sons had their turns next, followed by other male members of the household, then the women, and finally the children. Last of all the babies were washed. By then, the bath water was so dirty that you could actually lose someone in it. Hence the saying, "**Don't throw the baby out with the bath water**".

Most homes had thatched roofs, made of thick straw piled high with no wood underneath. It was the only place for animals to get warm, so pet dogs and cats, along with other creatures like rats, mice and bugs, lived in the roof. When it rained, the thatch became slippery, sometimes causing animals to slip and fall off. Hence the saying, "**It's raining cats and dogs**".

Because of thatch roofs, there was nothing to stop things from falling into the house. This posed a real problem in the bedroom where bugs and other droppings could really mess up a nice clean bed. However, folks found that if they made beds with big posts and hung a sheet over the top, it addressed that problem. Hence, those beautiful big four-poster **beds with canopies**.

The floors of most houses were dirt, and only the wealthy had something nicer to walk on. Hence the Saying "**dirt poor**". The very wealthy had slate floors that got wet and slippery during rainy weather. So folks would spread thresh on the floor to help keep their footing. As winter wore on, they would add more and more thresh until when one opened the door, thresh would start slipping outside. To prevent this, a piece of wood was placed at the entryway. Hence, they made a "**thresh hold**".

Meals were cooked in a big cast iron pot, the infamous "Dutch Oven" that always hung over the fire. Every day folks lit the fire and added more food to the pot. Because many were poor, they ate mostly vegetables and didn’t get much meat. Folks would eat this vegetable stew for days leaving leftovers in the pot to get cold overnight before starting up the fire for the next meal. Sometimes the stew had food in it that had been there for days. Hence the rhyme: "**peas porridge hot, peas porridge cold, peas porridge in the pot nine days old**".

For most people, meat was a luxury. Sometimes folks would get some pork, and they would feel really special. So when company came over, the generous host would bring out the bacon and hang it out to show it off. It was a sign of wealth that a man could "**bring home the bacon**". Thus, when company came, folks would cut off a little piece of pork to share with guests, and everyone would sit around and "**chew the fat**".

Those with money had plates made of pewter. Unfortunately, foods with high acid content caused some of the lead in the pewter to leach out onto the food, giving dinner a bit of an unpleasant taste. This happened most often with tomatoes, so...
folks stopped eating tomatoes . . . for 400 years. Most people didn't have pewter plates, but had trenchers instead—a bowl-shaped piece of wood with the middle scooped out. Trenchers were never washed and often worms got into the wood. After eating off of wormy trenchers, many people got "trench mouth".

Bread was divided according to status. Workers got the burnt bottom of the loaf, the family got the middle, and guests got the top, or the "upper crust".

Pewter cups were used to drink ale or whiskey, and sometimes the combination of lead and booze would knock the drinker out for a couple of days. If someone had the misfortune of passing out in the road in a drunken stupor, a common occurrence, friends or family might find them, take them for dead, and prepare them for burial. As a precaution, the "deceased" were laid out on the kitchen table for a couple of days. Then family would gather around to eat, drink, and while away the hours telling jokes as they waited to see if the deceased would come to. Hence, the custom of "holding a wake".

Because French villages are old and small, with closely spaced houses, folks started running out of places near the church to bury people. So, they would dig up coffins, relocate the bones within to a house, and re-use the grave. When some of these coffins were reopened, many (some say one out of 25) were found to have scratch marks on the inside. To their horror, people realized that they had been burying their friends and loved ones alive (in other words, a "wake" had not been held prior to internment). So folks came up with the idea of tying a string on the wrist of the presumed corpse, leading the string through a hole in the coffin, up through the ground, and tying the string to a bell. Someone would then have to sit out in the graveyard all night listening for the bell. Hence, on the "graveyard shift" of midnight to morning, the deceased was either "saved by the bell", or a "dead ringer" when the shift was up.

Toilet paper is a modern luxury, and people in those days, if they bothered at all, kept themselves clean with a bucket of water. Common sense dictated that the hand used for this task was not the same hand used to bring food to the mouth at meal times. Hence, the unclean hand wielded the knife, and the clean hand held the food or used the fork. Thus, proper Frenchmen, such as Sensier, keep their fork in the same hand when they eat. One wonders why American etiquette dictates that people cut their meat with their fork in the "clean hand" then change the fork to the other hand to eat.
Deadline for the next issue is: 
August 10, 1999

Check out the Pacific Section Web Site at:
http://www.psaapg.org

NEWSLETTER of the Pacific Section - American Association of Petroleum Geologists is published bi-monthly by the Pacific Section. Material for publication, requests for previous copies, and communications regarding advertising costs should be addressed to the editor - ALLEN BRITTON, Core Laboratories, Inc., 3430 Unicorn Road, Bakersfield, CA 93308.
E-mail: corebak@ix.netcom.com

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San Joaquin Geological Society MARK WILSON (661) 392-3047

NEWSLETTER
Pacific Section A.A.P.G.
Post Office Box 1072
Bakersfield, CA 93302
As fall begins and we race toward the new millennium, we find our industry reasonably stable with oil prices on the rise. I am sincerely pleased and honored to be able to serve as your new president at this time and to help lead the Pacific Section AAPG into the 21st century. I am very excited about the upcoming year and the overall course of our organization.

As Mel Erskine, Past President, reported in the July newsletter, the Pacific Section is thriving. Our annual conventions continue to be both financially and technically successful. The great success of our most recent meeting in Monterey was a product of an innovative partnership with the non-affiliated Monterey Bay Geological Society and hard work by our volunteers. The quality of Pacific Section AAPG publications continues to demonstrate the professional excellence of our organization. We continue to receive generous donations from members in support of several contributory funds, including the Bob Hacker and John Kilkenny Memorial Funds. Membership is growing, and our financial health is excellent. In turn, PS AAPG is able to support a variety of geologic and educational organizations, including the CSUB Geotechnology Training Center, the Dibblee Foundation, the California Well Sample Repository, and K-12 earth-science teacher recognition, support, and education programs.

A large measure of this success is a result of the commitment of our membership, particularly those individuals who volunteer as officers and committee chairs. Accordingly, I would like to express my thanks to the out-going PS AAPG officers. Mel Erskine, Consulting Geologist from the Northern California Geological Society, will retire as President and move into the role of Past President. Kay Pitts, with Aera Energy, will leave her position as Vice President and begin serving this year as President Elect. Cynthia Huggins, from Texaco Worldwide E&P, is demonstrating her dedication by transitioning from PS AAPG Secretary to San Joaquin Geological Society Secretary. Joan Barminski, with the Minerals Management Service, is moving on after two consecutive two-year terms as Treasurer... THANKS, JOAN!

The 1999-2000 Pacific Section AAPG Executive Committee has been engaged since mid-July. In addition to the continuing officers mentioned above, I would like to welcome and introduce our other new officers. Dale Kunitomi, a consulting geologist from Camarillo, is taking over as Vice President. Our new Secretary will be Frank Cressy, a pillar of the consulting geologist community. Beginning a two-year term as Treasurer is Harold Syms, with the Minerals Management Service. In addition to the elected officers, we are fortunate to have a great group of individuals who contribute to the Executive Committee in a variety of critical roles. In future newsletter columns I will highlight these individuals and the impact they have on the quality of this organization.

(Continued on page 2)
The creativity and flexibility that has allowed our industry to survive during challenging times is evident in our own PS AAPG organization. An example of this is our upcoming annual Pacific Section convention set for June 18-23, 2000, in Long Beach. This meeting, entitled "Working in Concert", will be a joint convention with the Society of Petroleum Engineers Western Region. Don Clarke, of the Los Angeles Basin Geological Society, is serving as Co-Chairman of the joint PS AAPG-SPE Convention Committee. Keep your eyes open for the call for papers! The professional interchange anticipated at this meeting may be only the beginning of similar joint meetings with other professional organizations including the Geological Society of America in 2001.

Terry Thompson
PSAAPG President 1999-2000

AEG Announces Scholarship

The Southern California Section of the Association of Engineering Geologists is now accepting applications for the 1999 Martin L. Stout Scholarship. The scholarship is valued at $500 and is open to all student members of AEG. The deadline for applications is October 1, 1999.

Application forms may be obtained by sending your name and address to Wendy Schell, Chairman of the Southern California Section of AEG, at 3775 Carmel Avenue, Irvine, CA 92606, email address is schellbw@aol.com. For information about the Association of Engineering Geologists, visit http://www.aegweb.org.

John Jefferson Woolley II, age 46, died suddenly of a heart attack on September 11, 1999, at his home in Ventura, California. John was born in Torrance, California on October 2, 1952, and was raised in Palos Verdes. He attended the University of Southern California and graduated with a Bachelor of Science degree in Geology in 1975. He then attended San Diego State University and graduated with a master's degree in Geology in 1978.

John worked for Sun Oil Company in Newhall, California, and Dallas, Texas until 1986. He then worked for Shoshone Oil Company in Ventura, California, and was the Senior Exploration Geologist at Venoco in Santa Barbara, California until his death. John also taught geology at Oxnard College. John married his wonderful wife, Margaret Hilliard on October 10, 1987, after a five-year courtship. Together they have two beautiful children, James, age 10, and Kate, age 5.

John was an expert petroleum geologist, cartographer, naturalist and photographer, and led many field trips to his beloved Santa Rosa Island, California. As a descendant of that island's ranching family, the Vails, John practically grew up on the island. John was regarded as the foremost island historian, geologist and liaison between the National Park Service and the former owners, the Vail and Vickers Company.

One of John's life goals was to be published, and he achieved that goal when several scientific and historical papers he authored and co-authored were recently published. He took exceptional pride in his co-authoring of the Thomas Dibblee Foundation map of Santa Rosa Island. He worked with Thomas Dibblee, Helmut Ehrenspeck, Peter Weigand and the many other of his geologic colleagues that he held in great esteem.

John was an avid golfer. For 21 years he hosted the Satchel Paige Invitational Golf Tournament in Pacific Grove, California. He loved the game. He loved gardening, especially when he could have his daughter Kate garden with him.

John's family and friends have started the John J. Woolley Student Scholarship Fund through the Coast Geological Society, P.O. Box 3055, Ventura, California 93006. In lieu of flowers, please consider a memorial donation to this fund.
Tom Baldwin Remembered

It is with sadness that I must inform you of the passing of Tom Baldwin this past May 19th in Oceanside.

Tom started with The Texas Company as a sample washer in the Los Angeles paleontology laboratory. After obtaining his degree, obtained through night study at USC in 1943, he became a field geologist and wellsite geologist. He worked doing field mapping in the Los Angeles Basin and Santa Cruz Mountains for Texaco prior to his assignment to the Salinas Valley.

Tom sat wells and described the cores and samples from the early exploration wells and discovery well at San Ardo field. Shortly after the field was discovered, Tom left Texaco to join Jergins Oil Company at San Ardo which was later sold and eventually became the General Petroleum-Mobil-Aera portion of San Ardo.

Tom enjoyed the company of many legendary geologists in those glory days of Salinas Valley exploration including that of a Richfield geologist Tom Dibblee. (Tom Baldwin and his wife, Francis, even hosted a wedding reception for Dibblee at the Rancho Triscony, near San Lucas).

After a long and successful career, Tom had been enjoying retirement in Muleje, Mexico until recently.

The geological community lost a legend and a great story-teller. I’m glad I was able to talk and correspond with him some about San Ardo the past couple of years.

Mike Clayton

News from the State Board of Registration for Geologists and Geophysicists.

The Board will have their next meeting on October 22, 1999 in Fresno at the Piccadilly Inn University, 4961 North Cedar Avenue, Fresno, CA 93726 The phone number is (559) 224-4200.

The meeting starts at 8:30 AM. All interested parties are welcome.

At the Board meeting in Los Angeles on August 13, 1999 officers for the Board for the coming year were elected:

SHARON JASEK REID, PRESIDENT. Sharon is a public at-large member of the Board from Chula Vista.

DAVID CUMMINGS, VICE PRESIDENT. David is a professional (geophysicist) member of the Board from Rolling Hills Estates.

Seena N. Hoose, professional (engineering geologist) member from Cupertino is the outgoing president and Karen Melikian, public at-large member from Fresno is the outgoing vice president.

Other Board members are:

Robert Lindblom, professional (petroleum geologist) member from Menlo Park;
Dorene Dominguez, public at-large member from Los Angeles
Paul R. Russ, public at-large member from Victorville.

The Board’s website is: www.dca.ca.gov/geology

Bob Lindblom

Petrolog

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Consultant
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Home (805) 832-8229
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### October Meetings

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Scholarships Available
for Pacific Section AAPG Universities
from Texaco
for the 1999-2000 school year

Undergraduate and graduate level students studying geology and/or geophysics may apply for a $1000 grant from Texaco. Application forms will be mailed out to all qualified colleges and universities in September. To request an application or to obtain additional information please contact:

Terry Thompson
Texaco Worldwide Exploration and Production
P.O. Box 5197X
Bakersfield, CA 93388
Fax: 661-392-2897; Office: 661-392-2464
E-mail: thomptw2@texaco.com

Alex Anderson – Still Creating After 46 Years

Texaco employee Alex Anderson has been creating basemaps, well maps and field cross sections for over 46 years. Alex is one of three people at Texaco’s Kern River Field near Bakersfield who still provide support for the professional geologists and engineers.

Using computers for the last 10 years, Alex remembers doing it all by hand with a staff of 10-12 people. “It was faster to print free-hand than use the old lettering templates”, he recalls. Today, computers allow him to complete projects in a fraction of the time.

Today, Alex handles budget and report presentations which are now primarily generated in Power Point. Maps and cross sections require Auto-CAD.

Alex has also been instrumental in helping create the cross sections so often seen in Pacific Section publications through the years. The cross section #CS9 was completed in 1957 and is of the Central San Joaquin Valley from T21S/R12E to T15S/R23E; San Andreas Fault to the Sierra Nevada foothills. Alex also completed one of the Santa Barbara Channel sections last year and is working on two more, as time permits, this year. With so few draftsmen around anymore, the PSAAPG is fortunate to have Alex’s assistance in getting this very important data into print.

Alex Anderson (Texaco Kern River) has seen mapping techniques come and go over a 46 year career.
Geology of the Midway-Sunset Oil Field and Adjacent Temblor Range

Pacific Section AAPG Guidebook #75 is a 425 page, comprehensive look at the largest producing oilfield in the lower 49 states. It contains color images of maps, cross sections, logs and core photographs. A large (1:48,000) surface geology map is included. Midway-Sunset is one of several billion barrel oil fields located around Bakersfield, California, U.S.A. Steam injection and horizontal drilling are a big part of the activity at Midway-Sunset. Projects currently underway in this field could easily push its production over 200,000 bopd.

This field guidebook was originally published in 1996 and reprinted in 1997. This third reprinting in 1999 includes only 60 copies available for public sale. If interested in obtaining a copy please send a check in the amount of $205.00 to:

Pacific Section AAPG Publications
P.O. Box 1072
Bakersfield, CA 93302

For additional information contact:
Larry Knauer
(661) 392-2471 (w)
(661) 391-4303 (f)
knauerlc@texaco.com

Visit our booth at the PSAAAPG Annual Convention in Monterey!!!

Sacramento Valley Exploration Society Donation

We are pleased to note that Pacific Section has received a generous donation of $2,000 from the Sacramento Valley Exploration Society. The donation was used in part to support the publication by the Dibblee Foundation of a new geologic map of the Monterey - Carmel Valley area. In addition, the donation supports our K-12 / Teacher of the Year Program.

The new map is entitled "Geologic Map of the Monterey Peninsula and Vicinity". It compiles geologic mapping from four 15 minute quadrangles - Monterey, Salinas, Point Sur and Jamesburg - into a single colored map at a scale of 1:62,500. The map sites the support of the Sacramento Valley Exploration Society and is dedicated to geologists John Kingsley and Richard Thorup. The map is available from the Dibblee Foundation as Map DF-71.

Mel Erskine

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Coastal Geologic Arena Brought to Life On MMS Field Trip
By Tanasha Franklin

In a Coastal field trip sponsored by UCLA and co-lead by the U.S. Department of Interior’s Minerals Management Service, science teachers representing various schools throughout California were introduced to the formation and historical uses of oil seeps along Carpinteria State Beach. The trip allowed the educators to explore various aspects of geology in the coastal areas of Ventura and Santa Barbara Counties. Special emphasis was aimed on the petroleum geology of the region.

Arranged in two parts, the field trip began at the Ventura Double Tree Hotel. Driving across the Ventura Basin, which was formed by the Santa Clara River and smaller tributaries, MMS Senior Staff Assistant for Geology and Field Trip Co-Leader Jeff Kennedy, accompanied by UCLA Geology Professor Dr. Ray Ingersoll provided a historical introduction to the area’s natural oil seeps as far back as 1542.

Referring to Petroleum Geologists Edwin B. Edwards’ Field Guide to the Geology and Asphalts Deposits of Carpinteria State Beach, Ingersoll and Kennedy geologists compared today’s Carpinteria community consisting of nearly 12,000 people to the former Chumash Indian village known as Mishopshnow. The area was known as a huge contributor of asphalt first used by the Chumash to waterproof bowls, and jars, affix arrow and spear points, for decoration of household items and for personal adornment. Asphalt was also critical to the construction of the Chumash canoe called “Tomol”. Padre Juan Crespi, diarist with the 1769 expedition of Captain Gaspar de Portola, gave Mishopshnow its modern name when he recorded that the soldiers called it La Carpinteria, “the carpenter shop”, from the fact that the Chumash were building a canoe at the time.

In later years, according to the Edward paper, asphalt development became increasingly commercial. The asphalt was heated in vats, washed with saltwater to remove the sand, loaded in barrels made on the property and shipped from a nearby wharf. Unfortunately, not all of the uses were recorded, but it is known that much of it was used to pave streets and roof tops.

Eventually, asphalt became a mining industry where huge quarry pits were dug in the ground exposing the asphalt which was sold in those days for thirty-six dollars a ton. In 1900 a 350-foot shaft was sunk into the bluffs which became filled with pure asphalt. Two years later, this shaft was steamed through a two-inch line, which made the asphalt available in a liquid form. Operations would continue off and on, from 1900 to 1931 until they were closed down and the equipment sold.

The tour continued by visiting the production facilities of Vintage’s San Miguelito Oil Field. The highlight of this area featured the Amphitheater, a viewing point where the fold axis of the field is exposed by erosion. The anticline contains the largest oil field in the Ventura Basin, with recoverable reserves in excess of one billion barrels. The sight is important because the age of folding is closely constrained and is shown to be very young. Documented information collected by Oregon State Professors Dr. Robert Yates and F. Bryan Grisby shows the Amphitheater’s folding in formation to be less than 200,000 years.

MMS has participated in the Petroleum Geology Exploration Field Trip with UCLA for three consecutive years. MMS, a bureau within the U.S. Department of Interior, is the federal agency that manages the Nation’s natural gas, oil, and other mineral resources on the OCS, and collects, accounts for, and disbursed $6 billion last year in revenues from offshore federal mineral leases and from onshore mineral leases on federal American and Indian lands.
San Joaquin Geological Society Kicks Off Fall Season Meetings With Barbecue

The San Joaquin Geological Society would like to thank the following "hole sponsors" for our September 10, 1999 Golf Tournament. This is our principle fund-raising event of the year and allows the nearly 300 members of our local society to underwrite several educational opportunities for our members such as Distinguished Lecturers from the National AAPG and field trips as well as to participate in community outreach programs such as the Kern County Museum, the California Well Sample Repository and Community Energy Night.

* ABA Energy
* Aera Energy
* CGG Americas Inc.
* Chevron
* Core Laboratories
* Delano Petrophysical
* Digital Petrophysics
* Epoch
* Goode Core Analysis
* Halliburton
* Horizon Well Logging
* Pacific Seismic
* Petrolog
* Schlumberger
* Texaco (2)
* Western Continental Operating Co.
* Western Geophysical

Mark L. Wilson
President SJGS

The chow line was a long one...

Frank Cooper, Jaime Roig and SJGS President Mark Wilson

Larry Knauer and Bob Horton relax in the shade.
Tony Reid, Mark Wilson, Geoff Nicholson, Mike Simmons and Bill Fedewa.

Russ and Mary Lou Robinson

Wes Bruer (Past PSAAPG President 1975-76), 2nd from left and Don Lindsay (right), did plenty of socializing.

Lengthwise Brewing Company

Mike Minner, Pacific Section and SJGS member, and Lengthwise Brewing Company supplied several microbrews at the barbecue. Mike would be happy to supply the spirits for your function. Give them a call.

Lengthwise Brewing Company
6000 Schirra Court
Bakersfield, CA 93313
(661) 836-2637
Joint PSAAPG-PSSEPM-SEG-WRSPE Meeting

The organizing committee is starting to shape the joint meeting of the Pacific Sections, AAPG, SEPM, SEG and Western Region of the SPE. This meeting will be held from June 18-23, 2000 at the Westin Hotel in Long Beach. Tight times have prompted us to evaluate and try new methods to better serve the oil industry. The joint meeting is one such effort. The core of the meeting will be four days. The technical sessions will be designed to bring as much geology and engineering together as possible. Coordinating the two groups will be challenging but I'm sure that the result will be worth the while.

We are looking for help and ideas. We want to conduct some field trips that will be of interest to both the geologists and engineers. If you would like to lead a trip let us know. We also need some good ideas for short courses. Environmental and regulatory short courses should do well. Please feel free to contact Don Clarke at (562) 570-3915.

Earth Science Week Coming Up

Things are gearing up for Earth Science Week (October 10-16); have you been thinking about what you would like to do this year? To help you out, GSA's Partner's for Education Program (PEP) has created an Earth Science Week Web site which compliments AGI's ESW site. The site contains: (a) information on Earth Science Week, (b) tips for successful experiences, (c) ideas for Earth Science Week activities (some of which came from PEP members), and (d) some subject-specific web sites with great information, activities, and links. The site can be found at:

http://www.geosociety.org/educate/earthweek.htm

In addition, PEP will be adding a list of books which can be brought to local bookstores in an effort to encourage them to set up Earth Science Week book displays. Book displays are a great way to increase public visibility of the geosciences during this week.

Coast Geological Society Announces New Officers

Officers for 1999-2000 are:

President:
Steve Richardson
Richardson Consulting, Inc.
1147 East Main Street
Ventura, CA 93001
email richconinc@aol.com
Phone (805) 648-4996
Fax (805) 643-9180

Vice President
Mike Barminski
Caprock
P.O. Box 6069
Ventura, CA 93006-6069
email mbarminski@aol.com
Phone (805) 644-3397
Fax (805) 644-7580

Treasurer
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800 S. Victoria Ave.
Ventura, CA 93009-1730
email diane.wahl@mail.co.ventura.ca.us
phone (805) 654-2460
fax (805) 654-2480

Secretary
Lorien Bareng
Applied Environmental Technologies, Inc.
4840 Market Street, Suite B
Ventura, CA 93003
email lorandshi@aol.com
Phone (805) 650-1400
Fax (805) 650-1576
**Alaska**

Fall meetings are held the third Thursday of every month. Meetings are at the Anchorage Hilton, 11:30-1:00.

Call Agatha Rutka at Arco with reservations for the meetings at (907) 263-4414 or e-mail to: arutka@mail.arco.com.

**Alaska Geological Society**  
P.O. Box 101288  
Anchorage, AK 99510  
Contact: Mark Myers  
(907) 263-4205  
http://www.seclabs.com/ags

---

**Coast**

The October 19 dinner meeting will feature Rod Farrell speaking on the “Avila Beach Remediation Project.”

A field trip is scheduled for November 6th. It will be led by Ed Keller of the University of California at Santa Barbara. Focus will be on the earthquake hazards of the Santa Barbara Fold Belt.

Reservations:  
By Web Browser (On-Line)  
By E-mail, Attn, Lorien Bareng at lornadshi@aol.com  
(Please RVSP via E-mail if possible)  
By phone, Sinclair Well Products and Services, Attn. Lance Lawhon at (805) 653-7975  
By FAX, at (805) 653-7452

**Northern California**

**Upcoming talks:**
- 10-13-99. Ben Santer, Lawrence Livermore Lab, “Global Climate Change: Natural or Human-Induced?”

**Field trips:**
- 10-2,3-99. Vallecitos Syncline; Mel Erskine, Consultant, and Tor Nilsen, Consultant

**Los Angeles**

Upcoming meetings:
- October 14, 1999 Dr. Mark Legg will speak on “The Seismic of Southern California; Some New Hazards”.
- November 10, 1999 Carpenter Theater/LABGS, Dr. Harrison Schmitt, Geologist-Astronaut on Apollo 17 and Senator from New Mexico will speak on exploitation of mineral resources on Earth and in space.
- November 17, 1999 SDAG, Dr. Pat Abbott will present his new book "The Rise and Fall of San Diego".
- November 18, 1999 LABGS, Dr. Lucy Jones of the USGS will speak about Southern California earthquakes.

**American Legion Hall**  
83 S. Palm Street, Ventura, CA

**NORTHBOUND** Highway 101 – Take California Street Exit, West (Left) on Thompson Blvd, North (Right) on Palm.

**SOUTHBOUND** Highway 101 – Take Ventura Ave. Exit, East (Right) on Thompson Blvd., North (Left) on Palm.

**Social Hour** – 6:00 p.m.  
**Dinner** – 7:00 p.m.  
$12 – With Reservation  
$17 – Without Reservation  
$5 – For Students and K-12 Teachers

**Coastal Geological Society**  
P.O. Box 3055  
Ventura, CA 93006  
Contact: Steve Richardson  
(805) 648-4996

---

**Northern California Geological Society**  
9 Bramblewood Court  
Danville, CA 94506-1130  
Contact: Dan Day  
(510) 294-7530

**AMERICAN LEGION HALL**  
83 S. PALM STREET, VENTURA, CA

**NORTHBOUND** Highway 101 – Take California Street Exit, West (Left) on Thompson Blvd, North (Right) on Palm.

**SOUTHBOUND** Highway 101 – Take Ventura Ave. Exit, East (Right) on Thompson Blvd., North (Left) on Palm.
Northwest

For meeting reservations please call Shelly Thomas at (503) 848-2947 or Bob Burnham at (503) 226-4211 ext. 4689.

Northwest Energy Association
P.O. Box 6679
Portland, OR 97228-6679
Contact: William Rodger, Jr.
(503) 224-3380

Sacramento

September 15, 1999 saw Ms. Terri Hunckler, Esquire of DOWNEY, BRAND, SEYMOUR & ROHWER speak on “I’VE GOT A SECRET: HOW TO KEEP OIL & GAS INDUSTRY SECRETS SECRET”

Noon luncheon meetings are held at the HUNGRY HUNTER RESTAURANT, 450 Bercut Drive, Sacramento.

Sacramento Petroleum Association
P.O. Box 254443
Sacramento, CA 95865-4443
Contact: Scott Hector
(916) 758-5951

San Joaquin

On Tuesday, October 12th, Professor Brian Wernicke (Cal Tech) - “Late Cretaceous to late Cenozoic evolution of the Sierra-Great Valley block; are the Sierras getting higher or lower?”

Cost is $15 with reservations, $18 without. Please contact Cynthia Huggins, (661) 392-2278, or e-mail to: huggica@texaco.com

Dinner Meetings are held the second Tuesday of each month (except summer months) at the American Legion Hall, 2020 H street, Bakersfield. The social hour starts at 6:00 p.m., dinner is served at 7:00 p.m. and the talk begins at 8:00.

San Joaquin Geological Society
P.O. Box 1056
Bakersfield, CA 93302
Contact: Mark Wilson
(661) 392-3047
http://www.sjgs.com

San Joaquin Geological Society

Project Engineering Geologist

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FAX 415/288-9881
Email: hta@a.crl.com

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1400 Easton Drive, Suite 111 • Bakersfield, CA 93309
The Geotechnology Training Center at CSUB is currently under construction. At this point, we have 12 PC’s and 6 SGI Octanes (UNIX-platform). Software donated to the center to date includes:

**UNIX-based**
- **GeoQuest**: GeoFrame, IESX, CPS-3, Petroview Plus, ElanPlus, StratLog, SurfViz, Eclipse (100, 300 and 500)
- **Landmark**: Fast Track, FZAP, GeoData Loading, OpenWorks, Seisworks 2D and 3D, StratWorks, Syntool, TDQ, ZAP, Z-Map Plus, VIP Therm

**PC-based**
- **GeoPlus**: Petra (geologic mapping, production tracking package—no seismic)
- **Seismic Micro-Technologies**: Kingdom Suite (2D and 3D seismic package)
- **GeoGraphix**: GES Ex, SeisView, Prizm, ResEV
- **GeoQuest**: Oilfield Manager
- **ESRI**: ArcView, PC ARC/INFO (Geographic Information System, i.e. GIS)

It appears that classes may be offered in the PC lab as early as winter quarter. Classes in the UNIX lab may be offered later during winter quarter. We would like you to take some time to answer the following questions so that we can set up classes to best suit your needs.

Are you interested in taking classes at the center? If so, characterize your computer experience:

- __familiar with MS Windows__
- __familiar with PC-based petroleum applications__
- __familiar with UNIX__
- __familiar with UNIX-based petroleum applications__

What computer technology skills are you interested in learning (and on what software, if applicable)? This could be anything from learning to work in a UNIX environment or load data into a database to learning to do 3D seismic interpretation, seismic attribute analysis or reservoir steamflood modeling.

Are you more interested in learning applications that use PC or UNIX-based (workstation) operating systems?

What software packages would you like to see added to the center (i.e. Earth Vision, Go Cad)? (We will do our best to obtain packages that appear to be in greatest demand but bear in mind that not all companies are as generous about donating software as our current donor companies.)

What times are most convenient for you to take a class? i.e. nights, weekends, weekdays

If you already have a high degree of skill in a particular technique or software package, would you be interested in teaching a course at the center? If so, let us know what type(s) of course you could teach and how to contact you.

Feel free to add any additional comments and please return completed questionnaires to:

Jan Gillespie  
Geotechnology Center  
Dept. of Physics and Geology, CSUB  
9001 Stockdale Hwy.  
Bakersfield, CA 93311
New Publication
Published for the 1999 Pacific Section Convention

“Late Cenozoic Fluid Seeps and Tectonics along the San Gregorio Fault Zone in the Monterey Bay Region, California”

This 156-page volume contains road guides to two field trips plus several papers. Color plates and a color cover complete this very informative new addition to the PSAAPG’s collection of publications dealing with West Coast geology.

To order please send a check for $25.00 made out to:

Publications
Pacific Section AAPG
P.O. Box 1072
Bakersfield, California 93302

Contact: Larry Knauer (661) 392-2471 or knauelc@texaco.com

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(907) 349-3541
**PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS**
**OFFICERS 1999-2000**

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  - pelkagj@bp.com

- **Coast Geological Society**
  - STEVE RICHARDSON
  - richconinc@aol.com

- **Los Angeles Basin Geol. Soc.**
  - DON CLARKE
  - doclark@cl.long-beach.ca.us

- **Northern California Geologic Society**
  - DONALD LEWIS
  - donlew@worldnet.att.net

- **Northwest Energy Association**
  - BOB BURNHAM
  - rhb@exchange.gasco.com

- **Sacramento Petroleum Assoc.**
  - SCOTT HECTOR
  - (916) 758-5951

- **San Joaquin Geological Society**
  - MARK WILSON
  - malw@chevron.com

**NEWSLETTER**
Pacific Section A.A.P.G.
Post Office Box 1072
Bakersfield, CA 93302

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**Deadline for the next issue is:**
October 10, 1999

**Check out the Pacific Section Web Site at:**
http://www.psaapg.org

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**NEWSLETTER of the Pacific Section - American Association of Petroleum Geologists is published bi-monthly by the Pacific Section. Material for publication, requests for previous copies, and communications regarding advertising costs should be addressed to the editor -**

ALLEN BRITTON, Core Laboratories, Inc.,
3430 Unicorn Road, Bakersfield, CA 93308.
E-mail: corebak@ix.netcom.com

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MEMBERSHIP CHAIRMAN, PACIFIC SECTION AAPG, P.O. Box 1072, Bakersfield, CA 93302.

TO ORDER PUBLICATIONS OF THE PACIFIC SECTION AAPG write to: PUBLICATIONS COMM.: PACIFIC SECTION AAPG, P.O. Box 1072, Bakersfield, CA 93302.
A MESSAGE FROM THE PRESIDENT

A member of President Bill Clinton’s staff once demonstrated a profound grasp of the obvious when he said, “If we don’t make some changes, the status quo will remain the same”. I think most of us would agree that change is necessary for success and growth. We in the oil and gas business certainly know that change is a continuous reality in our industry. The Pacific Section AAPG is no exception. As an organization we continue to seek new opportunities that will enable us to achieve our primary objective to “advance the science of geology and the professional well-being of our members”. In part, these new opportunities are reflected in our upcoming 2000 and 2001 annual conventions.

The 2000 meeting will be held June 19th through 22nd at the Westin Hotel in Long Beach, California. This convention, entitled “Working in Concert”, represents the first joint regional meeting between the PS AAPG and the Society of Petroleum Engineers. The focus of this convention will be on petroleum technology and the partnership between geoscientists and engineers in petroleum exploration and production. The merging of traditions and perspectives will result in a unique and positive learning environment. Don Clarke, LA Basin Geological Society/Long Beach Dept. of Oil Properties, and Glenn Swanson, SPE/Duke Engineering, are serving as Co-Chairmen of the joint PS AAPG-SPE Convention Committee. We have not stopped here. Plans recently have been set for a joint convention with the Cordilleran Section of the Geological Society of America in 2001. This meeting will be held in April 2001 at the Sheraton Universal Hotel in Universal City (Los Angeles), California. Co-Chairmen for this exciting meeting will be Jeff Shellebarger, San Joaquin Geological Society/Chevron, and Dr. Peter Weigand, GSA/California State University, Northridge.

Although the next two conventions will be significant departures from our traditional meetings, both will provide our members with expanded opportunities for education and growth. Just as the 2001 convention will bring an engineering perspective to the meeting, the 2001 convention will provide a refreshing infusion of ideas and concepts from the more ‘geologically pure’ world of the GSA. The goals that we have set are ambitious and will require a dedicated effort from the volunteers who work on the convention committees. Your support is critical to our success. Please participate by volunteering, by submitting abstracts and posters, and by ATTENDING.

SPOTLIGHT ON SERVICE (a new feature!) As I mentioned in the last newsletter, I would like to make a special effort to recognize and thank members of the PS AAPG for outstanding dedication and service to our organization. Virtually everyone in the San Joaquin Valley knows Bob Countryman. He has had a long and successful career as a petroleum geologist, dating back to Gulf Oil in the late 70’s, followed by Chevron, and now as a consulting geologist. Bob has been a pillar of the San Joaquin Geological Society and PS AAPG, holding just about every available office. Following his PS AAPG presidency in 1994-95, Bob be-

(Continued on page 2)
Bakersfield Geotechnology Training Center

Another Geotechnology Training Center is available to our members, and a local community of eager students, in Bakersfield, California. Opening this Fall in the Geology Department of California State University, Bakersfield, the facility will have six SGI Octane workstations and twenty PCs for students to use to study a myriad of state-of-the-art software.

For information contact:

Janice Gillespie, Director
Geotechnology Center
California State University, Bakersfield
9001 Stockdale Highway
Bakersfield, California 93311-1099
661.664.3040
jan@cs.cs.csubak.edu

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For more information contact:
Russ Robinson (curator)
(661) 664-2324
rrobinson@cs.csubak.edu
Pacific Section AAPG Sponsors Astronaut Talk

The Astronaut/Geologist/Senator Dr. Harrison Schmitt talk to the children of southern California was an incredible success. The Los Angeles Basin Geologic Society invited Dr. Schmitt out to talk to the school children in southern California. I went out and secured sponsors for the event. Pacific Section, AAPG and AAPG Foundation were two of the co-sponsors. Several oil companies were also represented. These included, ARCO Foundation, Tidelands Oil Production Company, the Crail-Johnson Foundation and the City of Long Beach, Department of Oil Properties. Other corporate sponsors included The Boeing Company and Pacific Bell. Including myself there were several AAPG members who volunteered during the event. These include Karla Tucker of Chevron, Vivian Bust, independent and Scott Hara of Tidelands Oil Production Company.

The talks were held at Robert Millikan High School in Long Beach, California. 4000 grammar school, middle school and high school students were bussed in from as far away as Riverside. Some students traveled for as long as two hours to attend the talks. Students led by Judy Dominguez from San Gabriel High School launched about 20 model rockets as part of the event.

Dr. Schmitt talked about his Moon trip and how his educational process developed. The most important point that he made was for each student to get the most out of his education as possible. He recommended that each student take as much math, science, English, history and foreign language as possible because with these tools you can build any future. He said that he never really planned to go to the Moon but when the opportunity arose he was prepared.

The excitement was evident in each of the three talks. The students knew that Schmitt was a genuine role model. This type of community outreach is exactly what our industry and profession needs. Like the Dr. Bakker talk last March, Schmitt’s talk touched each of the students.

Thanks for the PSAAPG support.

Don Clarke
President, LABGS
## December 1999

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Announcing
Year 2000 AAPG Pacific Section
$500 Award for
TEACHER OF THE YEAR-EXCELLENCE IN THE TEACHING OF
NATURAL RESOURCES IN THE EARTH SCIENCES

The AAPG Pacific Section will award $500 in June of 2000 for Excellence in the Teaching of Natural Resources in the Earth Sciences. Nominees for this award will come from Pacific Section affiliated societies, as follows:

- Alaska GS Gary Pelka pelkagj@bp.com
- Coast GS Joan Barminski joan.barminski@mms.gov
- LA Basin GS Karla Tucker kart@Chevron.com
- Monterey GS Gary Greene greene@cruzio.com
- NCGS Randy Kirby rkirby.geosci@usa.net
- NW Energy Assoc. Bob Burnham rlb@exchange.gasco.com
- Sacramento Petr. Assn. Scott Hector
- SJGS Paul Mock phmo@chevron.com

Each society listed above is encouraged to sponsor a local competition for teachers in their area and submit a winning nominee for the Pacific Section award. The winner of the Pacific Section award will be automatically entered in the year 2001 National American Association of Petroleum Geologists award of the same name.

The award will be a $500 certificate for the winner’s use for their school (or for that teacher to attend science conferences or training seminars), plus up to $250 in expenses to attend the year 2000 Pacific Section Meeting at Long Beach and enroll in the short course, “Rocks In Your Head”. Pacific Section requirements for teachers receiving this award are as follows;

Requirements:
1. A minimum of three full years full-time teaching experience at any level K-12
2. Teaching at least one unit per year on natural resources. Natural resources are defined as Earth materials used by civilizations past and present such as:
   - Inorganic substances found in the Earth such as water, mineral ores, building stone, aggregate, rocks and sediments.
   - Organic materials such as oil, gas, coal, and soil.
1. Teaching should include scientific study of these resources, for example: their origin, discovery, extraction, and/or historical and present uses. It may also include the preservation of the environment, reclamation, and/or the conservation of resources.
2. Entries will include the a brief description of the teacher’s philosophy of the teaching of natural resources, a description of the unit with outline, Vita, and two letters of recommendation: one from a colleague and one from an administrator.

(Continued on page 7)
Dr. Tim Parker of the Jet Propulsion Lab in Pasadena, CA was the Coast Geological Society speaker for November 1999.

Scene from the Martian surface. Twin Peaks are in the background. Some of the boulders in the foreground show evidence of rounding from transport by water.


Check out the new Coast Geological Societies' website at: www.coastgeologicalsociety.org.

(l-r) Allen Britton, Harold Syms and Dale Kunatomi.

(l-r) Tom Redin, J.P. Chauvel and Bob Beringer.
3. The unit will be evaluated on depth and breadth of concepts (resource origin, discovery, processing, usage, and reclamation), creativity of presentation, and balanced treatment of information regarding societal need and environmental issues.

In an effort to promote full participation among member societies, the AAPG Pacific Section is donating $250 to each participating society to be used for local year 2000 TOTY competition cash awards. Winning Nominees from each local society must be submitted to the AAPG Pacific Section no later than March 1, 2000. If you have any questions, need further information, or if you know of a teacher who might be interested, please contact Paul Mock or your local AAPG Pacific Section society representative.

Paul H. Mock
Pacific Section Youth Activities Chair
Chevron
P.O. BOX 1392
Bakersfield, CA 93302
(661) 395-6499
fax (661) 395-6542
Phmo@Chevron.com
Pacific Section AAPG Guidebook #75 is a 425 page, comprehensive look at the largest producing oilfield in the lower 49 states. It contains color images of maps, cross sections, logs and core photographs. A large (1:48,000) surface geology map is included. Midway-Sunset is one of several billion barrel oil fields located around Bakersfield, California, U.S.A. Steam injection and horizontal drilling are a big part of the activity at Midway-Sunset. Projects currently underway in this field could easily push its production over 200,000 bopd.

This field guidebook was originally published in 1996 and reprinted in 1997. This third reprinting in 1999 includes only 60 copies available for public sale. If interested in obtaining a copy please send a check in the amount of $205.00 to:

Pacific Section AAPG
Publications
P.O. Box 1072
Bakersfield, CA 93302
For additional information contact:
Larry Knauer
(661) 392-2471 (w) (661) 391-4303 (f)
knaulec@texaco.com

Happy New Year

Have You Seen This Log???

I am looking for a copy of the log taken in Mobil Oil, Santa Rosa Island #8. The DOGGR has lost their copy. We need it for the Cross Section Committee, which is working on a series of cross sections in the Santa Barbara Channel area. If you know someone who may have it please let me know.

Larry Knauer
(661) 392-2471
CALL FOR PAPERS
Pacific Section AAPG
2000 Convention
June 19-23 Long Beach

This is a joint meeting of AAPG and SPE. We need your contribution to make a successful meeting.

For the AAPG-SPE joint meeting in June 2000 we provide two different ways for you to submit an AAPG abstract:
1) submit online to www.spe.org/events/2000wrm/callform.html
2) email a digital file or fax a typed abstract to:
   SPE Technical Programs
   P.O. Box 833836
   Richardson, TX 75083-3836

If you prefer not to use the SPE address, you can submit your abstract for presentation a third way:
email to ddmiller@aeraenergy.com or mail to:
   Don Miller, AAPG-SPE Program Co-Chair
   Aera Energy, LLC
   P.O. Box 11164
   Bakersfield, CA 93389-1164

Follow instructions on the back of this form.
Sample Abstract Format and Guidelines for AAPG

HANNEEMAN, DEBRA L., Whitehall Geogroup, Inc. Whitehall, MT; and SCOTT W. TINKER*, Marathon Oil Company, Petroleum Technology Center, Littleton, CO

Include information requested on back of SPE/AAPG Call For Abstracts form. Note your AAPG or SPE preferred affiliation where Member Number is requested (include number if you have one). You do not have to be a member. To help us quickly and accurately process your abstract, please use this format to submit your abstract.

The first item you should list is the title of your abstract. The title should be in bold upper and lower case and flush left with the margin. After the title, skip one line and type the senior author’s name first, followed by additional authors. Capitalize each name. After each author’s name, include the affiliation (employer) and the city and state or country in which each author is employed. If the speaker is someone other than the senior author, put an asterisk (*) after the speaker’s name.

Skip another line and begin the body of your abstract. Abstracts for both oral and poster sessions are limited to 250 words or less. No illustrations, references or abbreviations are permitted. Only the title should be bold.
- All text must be contained within the lines of the box;
- Use the full width of the box
- Align the text to both left and right margins;
- Indent the first line of each paragraph;
- Abstracts will be reduced to 60%, so 12-POINT TYPE MUST BE USED;
- Helvetica or similar sans-serif font is preferred (Arial, Geneva)
- Lines must be single spaced

Be certain to proofread your abstract carefully, as NO corrections will be made after you submit your abstract.

THE BOX ON THIS PAGE IS FOR EXAMPLE PURPOSE ONLY. YOUR ABSTRACT SHOULD FIT INSIDE A BOX 5 INCHES WIDE AND NO MORE THAN 7 INCHES LONG. DO NOT INCLUDE A BOUNDING BOX AROUND YOUR TEXT!

AAPG ABSTRACT DEADLINE IS DECEMBER 31, 1999!
THEY SAID IT COULD NEVER HAPPEN

Millennium Meeting in Long Beach, California
June 18-23, 2000
Westin Hotel, Long Beach, California

Pacific Section, American Association of Petroleum Geologists
&
Western Region, Society of Petroleum Engineers

- The annual meetings of these two groups will be merged into one joint meeting.
- The technical program is planned to accommodate the interests of both groups.
- Outstanding speakers and activities are on the docket.
- The exhibits and presentation rooms are planned to provide optimum interaction of attendees.
- The accommodations and the surrounding revitalized coastal community provide a perfect setting.
- Bring the family and enjoy the tourism for which Southern California is famous.

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Don Clarke
Department of Oil Properties
211 East Ocean Blvd.
Suite 500
Long Beach, CA 90802
(562) 570-3915
doclark@ci.long-beach.ca.us

SPE
Glenn Swanson
Duke Engineering & Services
12100 Wilshire Blvd.
Suite 430
Los Angeles, CA 90025
(310) 979-4777 EXT. 11
gswanson@duke-energy.com
Alaska

November 18th saw Dave Schneider, USGS-AVO, speak on “Monitoring and Analysis of Volcanic Activity at the Alaska Volcano Observatory.”

The December 16th meeting will feature Thomas Bundtzen, Cir Pac Consulting, speak on “NE Russian Minerals Industry Related To Alaska.”

On January 20th David LePain, DGGS, speaks on “Sequence Stratigraphy North Slope, Alaska.”

Fall meetings are held the third Thursday of every month. Meetings are at the Anchorage Hilton, 11:30-1:00

Call Agatha Rutka at Arco with reservations for the meetings at (907) 263-4414 or e-mail to: arutka@mail.arco.com.

Coast

The December 21 meeting will feature Dr. Wyss, UCSB, speaking on “Fossil Vertebrate Of Mesozoic Madagascar.”

January 18, will see Dr. Steve Bachman, United Water District, who will give a talk on “3D Models Of Groundwater In Ventura County.”

Reservations:
By Web Browser (On-Line)
By E-mail, Attn, Lorien Bareng at lorandshi@aol.com
(Please RVSP via E-mail if possible)
By phone, Sinclair Well Products and Services, Attn. Lance Lawhon at (805) 653-7975
By FAX, at (805) 653-7452

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SOUTHBOUND Highway 101 – Take Ventura Ave. Exit, East (Right) on Thompson Blvd., North (Left) on Palm.

Social Hour – 6:00 p.m.
Dinner – 7:00 p.m.
$12 – With Reservation
$17 – Without Reservation
$ 5 – For Students and K-12 Teachers

Coastal Geological Society
P.O. Box 3055
Ventura, CA 93006
Contact: Steve Richardson
(805) 648-4996
www.coastgeologicalsociety.org

Los Angeles

Upcoming meetings:
December No LABGS meeting is scheduled. Have some happy holidays!

January, 2000 LABGS, Dr. Kim Bishop, CSULA will speak on Previously Unrecognized Mega-Landslides of the Owens Valley.

February, 2000 Dr. Gary Axen, UCLA will speak on Detachment Faults.

Los Angeles Geological Society
c/o Don Clarke
Dept. of Oil Properties
211 E. Ocean Blvd. Ste. 500
Long Beach, CA 90802
(562) 570-3915

Northern California

Upcoming talks:

11-10-99. Richard Blake, Lawrence Livermore Lab, “3D Seismic and the Discovery of California’s First Meteorite Impact Crater, Sacramento Valley”

December: No meeting

All talks will be held at the Orinda Masonic Center, 9 Altarinda Road, Orinda, CA. at 7:00 pm. Cost is $5.00
**Northwest**

November 12 saw Michael McGuire, Metro, speak on “Spatial Planning For Hazards: Mapping Mitigation On Common Ground”

For meeting reservations please call Shelly Thomas at (503) 848-2947 or Treck Cardwell at (503) 226-4211 ext. 4689.

**Northwest Energy Association**

P.O. Box 6679
Portland, OR 97228-6679
Contact: William Rodger, Jr. (503) 224-3380

**Sacramento**

November 17th saw Guy Burge, Crystal Bay Geosciences, speak on “Techniques That Increase The Possibility Of Getting Commercial Gas Wells From A 3-D Seismic Survey: Examples From The Sacramento Valley.”

December 10th is the Annual Gas Patch Christmas Party.

Noon luncheon meetings are held at the HUNGRY HUNTER RESTAURANT, 450 Bercut Drive, Sacramento.

**Sacramento Petroleum Association**

P.O. Box 254443
Sacramento, CA 95865-4443
Contact: Scott Hector (916) 758-5951

**San Joaquin**

The November meeting saw over 200 people attend to hear Dave Clark, DOGGR, speak on “Review Of The Bellevue Blowout, East Lost Hills”.

December 14th will feature a talk by Rick Stanley, USGS.

Cost is $15 with reservations, $18 without. Please contact Cynthia Hug­gins, (661) 392-2278, or e-mail to: huggica@texaco.com

Dinner Meetings are held the second Tuesday of each month (except summer months) at the American Legion Hall, 2020 H street, Bakersfield. The social hour starts at 6:00 p.m., dinner is served at 7:00 p.m. and the talk begins at 8:00.

**San Joaquin Geological Society**

P.O. Box 1056
Bakersfield, CA 93302
Contact: Mark Wilson (661) 392-3047
http://www.sjgs.com

**Chevron to pay Occidental $775 million to settle suit**

LOS ANGELES, Nov 18 (Reuters) - Chevron Corp. said on Thursday it agreed to pay an Occidental Petroleum Corp. unit $775 million to settle a longstanding lawsuit over a merger deal that fell apart 17 years ago between Gulf Oil Corp. and Cities Service Co. The case dates back to 1982 when Oklahoma-based Cities sued Gulf after it terminated an agreement to merge with Cities. Cities was acquired by Los Angeles-based Occidental in 1982 and Gulf was bought in 1984 by Chevron, in what was the largest corporate merger ever at the time.

**Occidental to buy Arco Long Beach production**

LOS ANGELES, Nov 17 (Reuters) - Occidental Petroleum Corp. said on Wednesday it agreed to buy Arco Long Beach Inc., a a production sharing contract and subsidiary of Atlantic Rich­field Co. Sources close to the deal said the purchase price was approximately $100 million. Terms of the deal were not disclosed, Los Angeles-based Occidental said in a news statement. The Long Beach contract shares production with the city of Long Beach and the state of California. Net production was about 30,000 barrels a day at the end of 1998, with proven reserves of 88 million barrels.

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The Board of Directors of the California Well Sample Repository met on November 17th at the California State University, Bakersfield facility to dedicate a special memorial to Vic Church. The memorial, a 36 inch diameter core taken from the foundation of Friant Dam is a symbol of Vic's tireless efforts on behalf of the repository.

On hand were university representatives, Virginia Church (Vic's Wife), friends of the repository and the local media who covered the event in depth.

The repository is California's only facility for the preservation of core samples, cuttings, microfaunal slides and other samples. Russ Robinson, curator of the repository, spoke briefly on behalf of the Board of Directors. He thanked Virginia Church in addition to her late husband Vic for their support of the repository through the years.
New Publication
Published for the 1999 Pacific Section Convention

“Late Cenozoic Fluid Seeps and Tectonics along the San Gregorio Fault Zone in the Monterey Bay Region, California”

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Decrease in natural marine hydrocarbon seepage near Coal Oil Point, California, associated with offshore oil production

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ABSTRACT
Prolific natural hydrocarbon seepage occurs offshore of Coal Oil Point in the Santa Barbara Channel, California. Within the water column above submarine vents, plumes of hydrocarbon gas bubbles act as acoustic scattering targets. Using 3.5 kHz sonar data, seep distribution offshore of Coal Oil Point was mapped for August 1994, July 1995, and July 1973. Comparison of the seep distributions over time reveals more than 50% decrease in the areal extent of seepage, accompanied by declines in seep emission volume, in a 13 km² area above a producing oil reservoir. Declines in reservoir pressure and depletion of seep hydrocarbon sources associated with oil production are the mechanisms inferred to explain the declines in seep area and emission volume.

NATURAL MARINE HYDROCARBON SEEPAGE
Hydrocarbon seepage from the world's continental shelves affects ocean chemistry (Dando and Hovland, 1992) and provides a natural source of petroleum pollution (Landes, 1973; Wilson et al., 1974; Kvenvolden and Harbaugh, 1983). Submarine venting of methane, a greenhouse gas (Watson et al., 1990), may provide a significant and overlooked source of methane in the environment (Hovland et al., 1993; Hornafius et al., 1999). Natural marine hydrocarbon seeps offshore of Coal Oil Point in the northern Santa Barbara Channel, California, are among the largest and best documented seeps in the world (Allen et al., 1970; Wilson et al., 1974; Kvenvolden and Harbaugh, 1983; Hornafius et al., 1999). At a regional scale, the Coal Oil Point seeps represent a significant source of gaseous hydrocarbons (Killus and Moore, 1991; Cynar and Yayanos, 1992) and residual asphaltic hydrocarbons (beach tar) (Hartman and Hammond, 1981). The Miocene diatomaceous shale and siltstone of the Monterey Formation are the source for the seep emissions (Reed and Kaplan, 1977; Hartman and Hammond, 1981).

The nearshore seeps at Coal Oil Point (Allen et al., 1970) are predominantly oil exuded directly from the outcrop of the Monterey Formation exposed in the axis of the Coal Oil Point anticline (Fischer, 1977) (Fig. 1). Further offshore, seepage passes through overlying Sisquoc Formation cap rock and includes both oil and gas (Fischer, 1977). The offshore gaseous seepage is controlled by the local geologic structure, which trends west-northwest. Seepage is most intense at submarine fault conduits and at structural closures along anticline axes (Fischer, 1977; Quigley, 1997). At one structural closure along the South Ellwood anticline, a site of intense historical seepage (Fischer, 1977; Fischer and Stevenson, 1973), offshore oil production occurs at Platform Holly (Fig. 1). At a second closure 1.5 km east of Platform Holly, prolific gaseous seepage is captured by a pair of seep tents (steel pyramids covering 1900 m² of sea floor) installed by ARCO in 1982 (Rintoul, 1982; Guthrie and Rowley, 1983). The areal distribution and volume of seep emissions have varied (Fischer and Stevenson, 1973; Fischer, 1977; Quigley, 1997). Time variation in the seep emissions is a significant issue. It implies variability in the local background levels against which pollution from industrial activities is measured, and is relevant at a global scale if seepage from continental margins represents a significant source of atmospheric methane (Hovland et al., 1993; Hornafius et al., 1999).
SONAR SURVEYS OF SEEP DISTRIBUTION

Gas hydrocarbon seepage offshore Coal Oil Point was mapped with 3.5 kHz sonar (Sweet, 1973; Tinkle et al., 1973) during July 26-27, 1995, and August 15-17, 1996. A 3.5 kHz acoustic transducer was towed at a depth of 9 in and a cruising speed of ~5 knots and navigated by a differential global positioning system (GPS). Analog records were recorded on a 19 in (48 cm) thermal paper recorder. The sonar transceiver was operated without time-varied gain. A Krone-Hite filter bandpassed the signal from 3.0 to 4.0 kHz to eliminate excess noise. The analog acoustic data display a cross section or profile of the water column and sea bottom along the ship tracks (Fig. 2). The travel time of each successive acoustic return is related to the depth by the sound speed, ~1500 m/s for the seawater and water-saturated sea-floor sediments. Dark vertical bands within the water column are sonar backscatter from gas bubbles. To evaluate changes in seep distribution near Platform Holly over a 22 yr period, 3.5 kHz records acquired by Peter Fischer in July 1973 were obtained for comparison. A comparison between two sonar records along a survey line between Platform Holly and the seep tents in July 1973 and July 1995 reveals a large decrease in seep activity (Fig. 2).

The 1973 and 1995 3.5 kHz analog records were digitally scanned to compare seep distribution and intensity. Profiles of relative seep intensity along each survey track were constructed by scaling the mean values of pixel darkness within a 20-30 in depth window relative to mean background values, normalized by the saturation level of the paper (Quigley, 1997). The sonar beam is ~25 m wide within the depth window. Relative seep-intensity data were subsequently gridded at 100 m, contoured by using a tension-spline surface algorithm (Smith and Wessel, 1990), and displayed as a relative-intensity map of seep distribution (Fig. 3). The threshold level of noise was arbitrarily selected as 0.1 (10% of the saturation level). The comparison is limited because navigational coverage is similar only within a restricted 13 km² area in the vicinity of Platform Holly (outlined by the box in Fig. 1). Change in seep distribution farther from Holly is unknown. Errors in the navigational data are on the order of a few meters for the differential GPS survey in 1995, but as great as 15 in for the 1973 data (Fischer, 1977). The total area of seeps mapped decreased from 0.9 km² to 0.4 km² between 1973 and 1995; the most significant disappearance of seepage occurred immediately adjacent to the platform (Fig. 3).

SEEP EMISSION VOLUMES

A time series of average monthly seep gas emission volumes collected at the seep tents (Fig. 4) illustrates variability in the seep emissions (Mobil Oil Corporation data supplied in 1997). The initial rate of gas collection at the seep tents following their installation was 30000 m³ (1050000 ft³) of gas per day (Guthrie and Rowley, 1983). Subsequently, collection volumes increased. The sharp increase in 1986 was due to the addition of flaps to the seep tent structures. Gas collection remained steady until a long-term decline in collection rate began in 1989. Other variations are second order in comparison to this dominant trend of decline, and they are of unknown origin. By 1994, emissions had declined to about half of the peak collection from 1987 to 1989, and the collec-
tion rate stabilized. The sharp drop in collection volume after 1994 was caused by a failure of a pipe from one of the seep tents, which was subsequently repaired, but again failed. The temporary repair caused the upward spike in the time series in 1995. The dashed line in Figure 4 represents our estimate of seepage volumes after accounting for the changes in area of the seep tents.

SEEP TIME VARIATION

Some variations in seepage could result from natural effects, e.g., changes in the fracture migration pathways due to viscous tar sealing (Vernon and Slater, 1963) or seismic activity (Fischer, 1977). Although these effects may account for second-order variations (illustrated in Fig. 4), the dominant trend is most likely attributable to the effect of oil production on the reservoir pressure that drives seepage. The disappearance of seepage around Platform Holly and decline in emission volumes collected at the adjacent seep tents indicate a long-term decline in seepage. The similarity in seep distribution near Platform Holly in the July 1995 and August 1996 data suggests that changes in seep distribution are negligible on a time scale of 1 yr. That the observed reductions in seepage are spatially associated with oil production from Platform Holly suggests that decline in seepage between 1973 and 1995 is associated with effects of oil production.

Oil production affects seepage as reservoirs of hydrocarbons are drawn down by producing wells (Landes, 1973; Wilson et al., 1974; Kvenvolden and Harbaugh, 1983), leading to reduction in reservoir pressure. The seepage rate is proportional to the pressure gradient based on Darcy's law (Craft and Hawkins, 1959). Since production from Platform Holly began in 1967, more than 50 million barrels of oil, an equal volume of water, and more than 30 billion cubic feet of natural gas have been produced by wells drilled from the platform. This withdrawal of subsurface fluids is reflected in a recorded decrease in subsurface pressure (Fig. 4). Prior to 1977, gas was reinjected, which may have increased formation pressures and could have increased seepage rates (Kvenvolden and Harbaugh, 1983). Pressure in the Monterey Formation reservoir beneath Platform Holly began to drop below hydrostatic levels in 1983 (Fig. 4; Mobil Oil Corporation data supplied in 1997). By 1994, the total pressure drop was about 35%. There is a lag of several years between the pressure drop under Holly and the drop in collection rates at the seep tents beginning in 1989. This can be explained as due to the low permeability of the Monterey Formation migration pathways (Isaacs and Peterson, 1987). The reduction in reservoir pressure is inversely correlated with distance to Platform Holly (Quigley, 1997). Near the platform, subsurface pressure was approximately hydrostatic at 11.9 MPa in 1972, about the time of the earlier 3.5 kHz sonar survey. By 1994, the pressure had decreased to 7.54 MPa. At 1.5 km east of the platform under the seep tents, the pressure was 9.65 MPa in 1994, suggesting that pressure decrease was greater near Platform Holly.

Although mechanisms other than pressure, such as gravity flow of meteoric recharge waters or buoyancy of gaseous hydrocarbons (Hunt, 1979), can potentially drive seepage, the seepage at Coal Oil Point is most likely pressure driven (Quigley, 1997). If the fracture pathways, which serve as seepage conduits, are gas charged, then the pressure gradient between the reservoir source and the sea-floor vents would be equivalent to the hydrostatic pressure, providing a considerable driving force. However, if the fracture pathways are liquid filled, then the pressure gradient would need to be above hydrostatic to drive seepage. This characteristic would pertain only to the early production history of the reservoir, which could explain the decrease of some seepage. In addition, if fracture pathways are liquid filled and the fracture apertures are too small (sub-millimeter), capillary pressure would oppose hydrocarbon expulsion (Hunt, 1979; England and Fleet, 1991). Thus, water intrusion into the fracture network could augment the effect of declining reservoir pressure and contribute to the disappearance of seepage.

Time variation in seepage would affect estimates of methane
leakage from continental margins (Hovland et al., 1993; Hornafius et al., 1999). This has important repercussions, because methane is a greenhouse gas (Watson et al., 1990). A larger global estimate for natural seepage rates would help to explain the unknown source of isotopically heavy methane in the global methane budget (Crutzen, 1991; Lacroix, 1993).

CONCLUSIONS
The distribution of seepage observed in maps of 3.5 kHz sonar data reveals a significant reduction in the area of seepage within 13 km2 of Platform Holly between 1973 and 1995. The seepage area has decreased by more than 50% over a 22 yr time period, and declines in volume emissions of gas collected at the seep tents declined by more than 50% from 1989 to 1994. Lacking sonar surveys between 1973 and 1995, we cannot say whether sea-floor discharge decreased at the same time as tent collection volumes.

The spatial coincidence between offshore oil production at Platform Holly and the observed decrease in seepage around Holly are probably related and attributable to the impact of oil production on reservoir pressure. Oil production from the Monterey Formation oil and gas reservoirs caused subsequent declines in reservoir pressure, thus removing the primary driving mechanism of the seepage. This finding implies that worldwide oil production may lead to declines in natural emissions of hydrocarbons on a global scale.

ACKNOWLEDGMENTS
This work was supported by grants from the University of California Energy Institute, California Energy Studies Program, and by the Minerals Management Service (MMS),
REFERENCES CITED


Quigley, D. C., 1997, Spatial and temporal quantification of gaseous natural marine hydrocarbon seepage in the Santa Barbara Channel, California [Master's thesis]: Santa Barbara, University of California, 95 p.


Geologists are solidly involved in the building code development process again, to the amazement of other high-profile professions and with the congratulations of numerous code officials. In mid-September, the California Council of Geoscience Organizations was joined in testifying at the 2000 International Building Code Final Action Hearings in St. Louis by representatives of the Association of Engineering Geologists and the American Institute of Professional Geologists.

We narrowly defeated a proposal by the National Council of Architectural Registration Boards to change 38 code sections to permit only architects or professional engineers to do the work of all registered design professionals, including geologists. The architects' comprehensive proposal was supported by building officials from cities that included Los Angeles, Pasadena, and Fremont, California, who argued that to protect public safety, buildings must be designed only by architects or engineers.

CCGO testified that a building designed by an architect or an engineer is only as stable as the site it sits on, only as good as the underlying geology. We emphasized that the proposed changes would prohibit geologists from carrying out their role in protecting public safety.

In the year since CCGO became involved in the code development process by submitting four proposed changes to the 2000 IBC, we have had slope stability added as a required consideration in building site investigations, built alliances with building officials, structural engineers, and interior design professionals; obtained admissions from architects' groups that they have no business performing geologic work; drawn two international geologic organizations back into the code development process; and reserved geologic work for geologists. Following CCGO's lead, geoscientists now have an opportunity to reverse some of the recent deletions of geologic requirements from the code and to benefit from our newly acquired stature as members of the code development community.

For further information, contact CCGO Code Development Committee Chair Betsy Mathieson: Bmathieson@post.Harvard.edu, or CCGO President David Ebersold: David.B.Ebersold@mw.com or (626) 568-6943.
The California State Board of Registration for Geologists and Geophysicists (BRGG) held a regularly scheduled meeting on October 22, 1999 in Fresno at the Picadilly Inn University. This report presents my notes and commentary on selected items. I do not represent any group, association, or business. The Board’s new president, Sharon Jasek Reid, presided.

The most controversial item on the long agenda was a public hearing on the Board’s proposed regulation to require that licensees provide clients and potential clients with prominent notification of their licensed status (i.e., the fact that they are licensed). The proposed regulation was developed in response to a request from the Department of Consumer Affairs. It would have required licensees to place their license number on a variety of business forms (cards, letterhead, and invoices) and in advertisements. Posting of notice of licensure in one’s place of business would also generally be required. A letter from the Southern California Section of the Association of Engineering Geologists was read into the record and its points were discussed by the Board. Additional testimony was provided Ted Smith, representing the California Division of Mines and Geology. John Williams presented his views on the potential implications of the proposed regulation for the academic community. Hugh Robertson, representing the Southern California Section of AEG was delayed by weather at Los Angeles International Airport and arrived after the public hearing was closed. Because of comments and testimony, the Board sent the proposed regulation back to staff and the Technical Advisory Committee (TAC) for some reworking. It is likely that the TAC would not be able to complete its work on the matter until the first meeting after its November 5 meeting. (In my opinion, the MOU is important because in essence it defines what soil scientists can do that will not be considered to be the practice of geology).

The Board is scheduled for Sunset Review II before the Joint Legislative Sunset Review Committee on November 30, but this could be shifted to December 1. The Board’s Sunset Review report was completed and submitted on time at the end of September. A massive staff effort was required in the last two weeks of September to rewrite the report to meet new guidelines distributed at the last minute. The Sunset Review report is now a public document and can be obtained from the Board office or (soon) viewed on the Board web site. The Board needs support in the sunset hearings and those interested in testifying should contact Paul Sweeney, the Board’s Executive Officer.

The Examination Committee report recommended that the frequency of examinations for Geophysicists be reduced to once a year (in the fall). The reason is that very few people apply for the geophysicist examination (typically 6 or fewer per year), so unit costs are high. Board members expressed caution about starting this new schedule immediately by not giving the spring 2000 Geophysics exam. They recognized that some potential candidates might be counting on being able to take the exam in the spring.

The term of public member Paul Russ has expired and he has notified the Board that he will not serve during his one-year grace period. The position is an appointment of the Speaker of the Assembly.

Two somewhat intertwined topics were again discussed. These are 1) the need for a core curriculum that the Board could recommend to college and university geology departments as desirable to prepare students for the geologist licensure examination, and 2) the potential usefulness of an accreditation program for geology curricula. It is thought that both steps could result in candidates who are better prepared for the registered geologist examination, and who can provide higher quality geologic services to the people of California.

The next Board Newsletter to licensees will be mailed in early December. It will contain the final version of the “Standards of Professional Practice.” This document is really a Code of Ethics, but the title follows a legislative directive.
ENTRY FORM
Los Angeles Basin Geological Society
$200 Award for Excellence in the Teaching of
Natural Resources in the Earth Sciences

Entrant Information Cover Page (Please print or type all information)

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Address __________________________
City __________________________ County __________________________ Zip Code ________
Telephone # (home) __________________________ (work) __________________________
Current position and grades taught __________________________
Expected teaching position next year __________________________
Number of years teaching __________________________ Other subjects taught __________________________
Highest degree and year earned __________________________ Subject area(s) of degree __________________________

The above information and information supplied with this entry is, to the best of my knowledge, true and correct. I understand that a $200 award will be made to me for my school for use under my direction only, but can include my attendance at science conferences or training seminars. I am responsible for all taxes due as a result of this portion of the award. If a winner, I hereby give my consent to use my name and photograph for publicity purposes only.
Signature __________________________ Date __________________________

The above information and information supplied with this entry is, to the best of my knowledge, true and correct, and represents the teacher’s current assignment. I understand that a $200 award will be made to the above named teacher for my school for use under that teacher’s direction only, but can include that teacher’s attendance at science conferences or training seminars. I also understand that neither my school nor I is responsible for any taxes due as a result of this award. Release time will be given to the above named teacher to attend the award ceremony, if selected.
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Attach this form to the top of your entry and mail an original and two copies of all material to:

Los Angeles Basin Geological Society
Attn: Karla Tucker
18763 Fairfax Ln.
Huntington Beach, CA 92648

Entries must be postmarked by January 31, 2000

Requirements:
1) A minimum of three full years of full-time teaching experience at any level K-12.
2) Teaching at least one unit per year on natural resources. Natural resources are defined as Earth materials used by civilizations past and present, such as:
   a) Inorganic substances found in the Earth; water, mineral ores, building stone, aggregate, rocks and sediments.
   b) Organic materials such as oil, gas, coal, and soil
3) Teaching should include scientific study of these resources, their origin, discovery, extraction, and historical and present uses. It should also include the preservation of the environment, reclamation and the conservation of resources.
4) Entries must include a statement of the teacher’s philosophy of the teaching of natural resources, a description of the unit with outline, Vita, and two letters of recommendation; one from a colleague and one from an administrator.
5) The unit will be evaluated on depth and breadth of concepts (resource origin, discovery, processing, usage, and reclamation), creativity of presentation, and balanced treatment of information regarding societal needs and environmental issues.
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