

Pacific Petroleum Geology

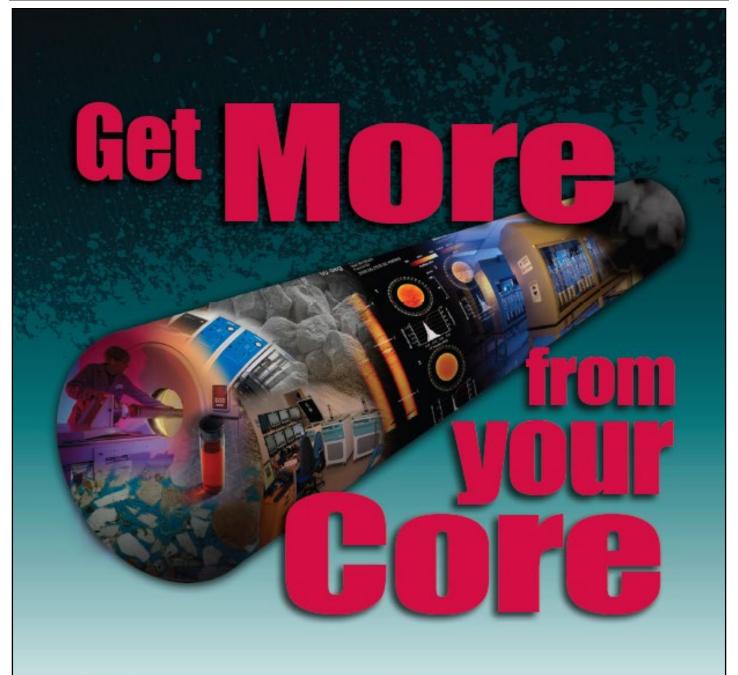


Pacific Section • American Association of Petroleum Geologists

March & April 2013



Convention Time!



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NEXT Newsletter Deadline

(May and June Issue): May 1st

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- CONTACT THE EDITOR at "kyrocks@peoplepc.com," NOT editor@PSAAPG.org
- <u>Images (graphics, photos, and scans) must be at least 300 dpi resolution</u>. Text should be at least 600 dpi.
- Scanned photos, illustrations (line art) or logos should preferably be submitted as a .tif, .gif, .eps, or .bmp.
- Avoid clip-art and images from the internet. These images are low-resolution (72 dpi).

Advertising Rates

Members	Single Issue	Year(6issues)
Full Page	\$400.00	\$1600.00
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Convention: Unlimited Space in PSAAPG Newsletter

Societies: 1/4 Page in AAPG Explorer



I hope everybody has made their plans to attend the Pacific Section's annual meeting in Monterey in April. Many of you, of course, associate "Monterey" the city with "Monterey" the formation. Arguably, the Monterey (plus the sandstones contained within) is the most important rock interval in California. At our meeting we will all get a chance to learn more about this amazing and complex formation.

I first became aware of the Monterey Formation in my field course at CSUN. We mapped a swath of Monterey (Modelo) across our Piru Creek field area. Gene Fritsche, our instructor, insisted we research the formations of the Ventura basin, including the Coldwater, Sespe, Vaqueros and Monterey. As a treat at the end of our project Gene took us on

an excursion among creaky old wells of the Sespe field, boulder-hopping up Sespe Creek and to the Sespe and Coldwater type sections. I remember being impressed by the significance of a type section as a stratigraphic standard. Later I visited many others including the Vaqueros type section near Greenfield. As part of my MS thesis work I spent a day in the rain examining an ugly pile of lumpy rock – undoubtedly the least impressive type section in California!

A visit to the Monterey type section has eluded me. On the other hand maybe it has eluded many because it was named for vaguely defined outcrops outside of Monterey. But we can't really blame William P. Blake, for when he named the Monterey in 1856 there was no Code of Stratigraphic Nomenclature for him to follow. Nonetheless I'm always impressed that in 1856 the science of geology had progressed to a point where the most distinct unit of California's Tertiary section was described and named.

I hope to "bag" the Monterey type section (or whatever Blake described) on the first field trip of the convention. I hope you too can fulfill your geologic goals at our annual meeting.

Tony Reid President



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Age dating and environmental determinations of the LA Basin, the Ventura Basin, the San Joaquin and Sacramento sections, as well as the Alaskan Cook Inlet and Post Paleozoic North Slopes section

R.C. Baker Memorial Museum

EDITOR'S NOTE: This article on the R.C. Baker Memorial Museum is the second in an ongoing series of articles highlighting California museums that celebrate a significant relationship to petroleum. The West Kern Oil Museum in Taft was featured in the Jan-Feb 2013 Newsletter. Other planned articles will feature the California Oil Museum in Santa Paula, and the Black Gold Exhibit at the Kern County Museum in Bakersfield. I spent an enjoyable morning talking to Board of Directors member Bill Morris, a longtime Coalinga resident and retiree from Union Oil.



The R.C. Baker Memorial Museum officially opened in 1961. It is located at 297 West Elm Avenue in Coalinga, Ca. The Baker Museum is a "Non-profit organization established for the purpose of preserving the geological and historical lore of the area." The Museum occupies an entire city block of downtown Coalinga, and was named for R.C. Baker, a civic leader of Coalinga for more than 50 years. R.C. Baker was the founder of Baker Oil Tools, an oilfield service company which still exists today as Baker-Hughes, Inc.

Like many small town museums, the facility is a "community" Museum, run by a Board of Directors and staffed by volunteers. The museum documents many aspects of Coalinga area life, both past and present. There is no admittance fee. The Museum operates thanks to donations, memberships, and a gift shop. The Museum receives significant financial support each year from the Baker Hughes Foundation. With only a couple of exceptions, the Museum owns everything on display.

Walking through the Museum, you will see several exhibits that celebrate the history of Coalinga, the adjacent Kettleman Hills, and Pleasant Valley. Rooms and/or sections of the museum are dedicated to pioneer ranching and farming heritage, minerals and fossils, historical oil industry equipment, pipelines, Coalinga schools, R.C. Baker, automobiles, the Southern Pacific railroad, and the 1983 Coalinga earthquake. Oil and gas tools and machinery are housed in the Fisher Room.

The Museum is located where the Baker Casing Shoe Company first manufactured products. The Fisher Room includes products patented by R.C. Baker, the founder of Baker Oil Tools. In fact, Mr. Baker's patented creations are painted yellow to distinguish them from other tools. This room is a great place to see manual tools used on drilling rigs in the first half of the 20th Century. Baker was a visionary inventor and master mechanic who didn't attend school beyond third grade. He came to Coalinga in 1899 after working in Los Angeles oilfields for five years. Perhaps Baker's best known invention is the casing shoe, patented in 1907 as the second of his 124 patented products.

(continued on page 6)







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A rather new Museum exhibit is a 1930's vintage Richfield gasoline service station, which was refurbished in in 2004. The station advertises 14.9 cents per gallon gasoline. Yeah...those were the days. Plans for future projects include creating a new automotive Museum.

The Museum was relatively unharmed by the 6.5M Coalinga earthquake of 1983, which devastated much of Coalinga's downtown. However, one item, a large pipeline connected to a manifold, was damaged. The earthquake epicenter was northeast of the town, beneath Coalinga anticline.

Geology related displays can be seen. Most have to do with fossils, minerals, or oil. A mammoth skull found near Coalinga (see photo), shark's teeth, giant oysters, and other paleontological-type items are displayed. Minerals, mostly from in the Diablo Range north of Coalinga, show the wide diversity of blueschist-facies mineralization of the New Idria uplift.

A visit to the R.C. Baker Memorial Museum makes traveling to "Coaling Station A" worth the time.













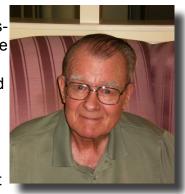


R.C. BAKER MEMORIAL MUSEUM- COALINGA, CALIFORNIA

In Memoriam

Wes Bruer

One of the Pacific Section's and San Joaquin Geological Society's most distinguished members, Wes Bruer, passed away January 4. Wes was designated California Registered Geologist #1, because of his involvement in writing legislation that created licensing of geologists in California. He was appointed State Geologist of California, and served in that position from 1968-1973. Governor Ronald Reagan appointed him to head the Division of Mines and Geology and the California Energy Commission. He was a former President of the Pacific Section in 1975-76, and was awarded PSAAPG Honorary Life Membership in 1988 and Northwest Energy Association Honorary Life Membership as well. He was SJGS President in 1963-1964. Wes was State Geologist at the time of the devastating San Fernando Earthquake in 1971, and was one of the first state officials on scene. He worked with scientists and legislators to improve building codes following that earthquake.



Wes was a native of St. Helens, Oregon, which is near Portland. Immediately after high school, he entered the Navy during WW II, where he served on a submarine, the "USS Tuna" in the Pacific. In 1945, Wes met the love of his life, Dee, while on leave. They were married that same year. After the war, he studied geology at Oregon State College (now University.) He worked for several companies in the late 1940's before gaining significant industry experience via working for Superior Oil in Bakersfield, beginning in 1950. He later set out on his own with a consulting business. He worked with many companies and independent investors through the years and always had great stories to tell about everyone while involved in well sitting. From the roughnecks, tool pushers to the mud men, Wes enjoyed the camaraderie of all. He and Dee met many lifelong friends during the 1950's and 1960's in Bakersfield. Wes was involved in local politics, serving on the Bakersfield Planning Commission, and managing successful campaigns for friends, including California State Representative (and later U.S. House Representative) Bill Ketchum.

After serving as State Geologist, he resumed a consulting business in 1973 in Bakersfield. One of his professional highlights was the 1979 discovery of Mist Gas Field, the only commercial hydrocarbon discovery in Oregon to date. Mist Field is close to St. Helens, where Wes grew up. He and his wife Dee were living in Oregon at the time of the discovery. Wes suffered a severe stroke in 1987 and he and his wife moved back to Bakersfield. He was a long-time attendee of SJGS meetings, and highly respected among his peers. He is survived by his wife of 67 years, Dee, his daughter Lucia, and his sister Marjorie.

-Excerpted from numerous sources, including the Bruer family and Jack West

Butch Brown

Grosvenor C. "Butch" Brown passed away on February 12th, 2013 at the age of 87. Butch, as he was known by everybody, worked for Union Oil of California, retiring from Union after 35 years of service. Butch grew up in Midwest and moved with his parents to New York where he attended high school. When he was seventeen, he left high school before graduating. Butch joined the Navy in San Diego and fought in WWII. He served on the "USS John Rodgers", a destroyer in the Pacific Fleet and was discharged in San Diego in 1946. Here he resumed a courtship of Ellen Marshall, but that courtship ran into a slight snag; Ellen insisted that she would not marry him until he finished high school.



Continued on page 8

Butch returned to New York City where he finished his high school degree in night school. Butch graduated in 1951 from USC with a degree in geology/paleontology. The most amazing thing about Butch's academic career is the fact was that Butch suffered from dyslexia. In the Navy, and later at USC, he worked diligently to overcome this handicap. Upon graduation from USC, Butch was hired by Union Oil Company in 1952 where he began his career as a "bug picker" in the Western Region paleo group. For the next 20 years Butch traveled the Union "trail" from California to Colorado to Oklahoma and back to California working both as an exploration and development geologist. In 1973 he was tapped to manage the Western Region Paleontology Lab.

Butch made the lab an industry leader thanks to his managerial style, ability to communicate effectively, and unique ability to spot and hire talented professionals. These attributes were important during the 1980's, when Butch led Western Region's geology and geophysical recruiting effort. One of Butch's favorite geologic activities was to lead field trips to see Deep Water clastics of the Ventura Basin and the onshore Monterey Formation sediments for Union and our professional organizations: Pacific Section AAPG and Coast Geological Society. Throughout his career he was an active member of both organizations serving as an officer and advisor. He was awarded honorary life membership in the Pacific Section AAPG in 1997 and also honorary membership in the Coast Geological Society. He remained active in the CGS, providing plaques for speakers after retirement.

Butch is survived by his wife Ellen, daughters Nancy Brown and Jamin Brown Condou, and many other family and friends. For Butch's family, for those of us who worked with Butch, or for those who simply knew him as a friend and fellow geologist, we have all lost a significant presence in our lives. -excerpted from an appreciation by Bob Ballog.

Dennis Southworth

Alaskan geologist Dennis Southworth passed away on Nov. 27, 2012 after a long struggle with Multiple Sclerosis (MS). Born in Bakersfield, Ca, Dennisspent most of his early years in Los Angeles. He earned a Bachelors Degree in Geology from San Francisco State University. He migrated to Alaska in 1976, which according to Dennis was a "serendipitous" move. He received a Master's Degree in Geology from the University of Alaska, Fairbanks. During graduate school Dennis spent his summers as a field assistant with the U.S. Bureau of Mines (USBM). Dennis spent the following nine years with the USBM conducting mineral assessments for that Federal Agency and did a short stint with the U.S. Geological Survey in Anchorage.



As a USBM employee, Dennis spent many field seasons conducting resource assessments across the varied geologic terranes of Alaska. This included the Goodnews Bay, Juneau, Valdez Creek, and Hot Springs Mining Districts. He was lead or co-author of seven BOM publications and was based out of both the Anchorage and Fairbanks USBM field offices.

Dennis was a pleasure to work with in the field; his dry wit and humor were a welcome relief during a long day of slogging through the rain forests of Southeast AK or suffering hoards of mosquitos in the interior. A natural storyteller, many of the tales were about himself. It pleased Dennis to bring laughter to others. His knowledge of Alaskan geology was exceptional.

Dennis was diagnosed with MS in 1988, but he continued to do field work after many of us would have given in to the debilitating disease. When it became too difficult even for him to be in the field, he completed reports related to many previous field projects. The disease left him a quadriplegic for several years, but through it all he never lost his sense of humor or will to live.

- excerpted from an appreciation by Joe Kurtak



PSAAPG

Energy & the Environment - Working Together for the Future

SPE

Pacific Section Convention

2013

Western Regional Meeting



From the Chairs

The Northern California Geological Society of PSAAPG is working with SPEI Western Region, and the Pacific Sections of SEPM, SEG and DEG to give you a strong meeting for our 2013 Conference. It is a general interest meeting with papers on a wide variety of topics. The theme of the 2013 conference is "Energy and Environment - Working Together for the Future." The 2013 Conference offers a great opportunity for networking and learning from professionals in both Earth Sciences and Petroleum Engineering. Our PSAAPG Keynote Speaker is Timothy (Tim) R. Kustic, State Oil and Gas Supervisor, California Department of Conservation Division of Oil, Gas, and Geothermal Resources. Our SPEI-WR Keynote Speaker is Jeff Spath, vice president of industry affairs for Schlumberger Limited.

Presentations will be organized into technical sessions with topical themes. We span the scope of Pacific Section with papers from Arctic Energy Opportunities to Fluvial & Shallow Marine Systems to Deep Water Deposits and the complexities of Pacific Margin tectonics and Sedimentation, as well as Geothermal Energy and Environmental Monitoring. Qualified poster papers and will be included in the proceedings. We have a great set of Field Trips to take us into the Monterey Formation, Convergent Margin tectonics, Submarine Canyons and the Salinas Basin Petroleum System. Our short courses focus on the Monterey Formation, Reservoir Characterization and Environmental Monitoring. We have the added benefit of SPE sessions and short courses including Alternative Energy & Heavy Oil, Reservoir Management, Shale/Diatomite Production, as well as Carbon Management and Environmental Regulation. We also will have strong Student activities, including an IBA competition, as well as Young Professional activities and a K-12 Teachers' Program.

The committee members look forward to your active participation in Technical Sessions, Field Trips and Short Courses, as well as discussions around poster sessions. You will enjoy the beauty and historical background of Monterey through a diversity of activities. We look forward to seeing you in Monterey in April 2013!

We thank Northern California Geological Society (PSAAPG) and SPE Golden Gate Section (SPEWR) for hosting this meeting.

Paul C. Henshaw, PhD PSAAPG Convention Chair

Dr. Louis M. Castanier SPEI-WR Convention Chair

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GENERAL INFORMATION

Find up to the minute information at http://psaapg.org/upcoming-events/ or https://sites.google.com/site/wnar2013/. Please contact the general meeting co-chairs: Paul Henshaw, Drphenshaw@comcast.net (AAPG) or Louis Castanier, louisc@stanford.edu (SPE) if you have questions. Local hosts are the Northern California Geological Society and Golden Gate Section, Society of Petroleum Engineers.

Registration

It is our pleasure to invite you to register for the 2013 PSAAPG Convention, joint event with the SPE, that will take place in Monterey, California from April 19 to April 25, 2013.

For the conference, registration and payment will be online only.

Early registration deadline: March 15, 2013; Cancellation deadline: April 16, 2013

Short Courses and Field Trips have Registration Cut-off dates of April 1, 2013.

Online Registration for Conference stops April 15. Onsite Registration starts April 20.

The PSAAPG Regional Convention is a general interest meeting with papers and poster sessions on a wide variety of topics as well as timely short courses and field trips. The theme of the 2013 conference is Energy and the Environment Working Together for the Future. Presentations will be organized into technical sessions with topical themes. Our committee members look forward to your papers and attendance, near the wharf in beautiful Monterey.

For details on the conference & registration, please visit our webpage at

https://www.regonline.com/PSAAPG WRM 2013

More details are available on: http://psaapg.org/upcoming-events/ or

https://sites.google.com/site/wnar2013/

Register now and save - fees will increase on March 15 and again April 12. 2013. All meeting badges will be distributed on-site.

Fees

Registration Type	On or Before	On or before	After
	March 15	April 12	<u> </u>
Member Registration	\$275	\$350	\$400
Non-Member	\$325	\$400	\$450
One Day – Member	\$125	\$175	\$225
One Day – NonMember	\$150	\$225	\$275
Student Member	\$50	\$75	\$100
Student Member One Day	\$25	\$35	\$45
Guest / spouse*	\$100	\$125	\$150
Exhibitor (above 2 included)	\$150	\$220	\$275
Field Trip or Short Course only	\$25	\$35	\$45

Joint Proceedings CD-ROM (includes SPE papers & PSAAPG/SEPM/SEG abstracts): available on-site when you check in.

^{*} Guest or Spouse registration fee does not allow access to technical sessions.



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2013

Western Regional Meeting



On-Site Registration/Check-in and Badge Pickup Schedule

Registration will be in the main lobby of the hotel on Saturday afternoon and Sunday through Wednesday

☐ Saturday, April 20; 3:00 PM – 6:00 PM

Pacific Section Convention

- ☐ Sunday, April 21; 8:00 AM 6:00 PM
- ☐ Monday, April 22; 7:30 AM 5:00 PM
- ☐ Tuesday, April 23; 7:30 AM 4:00 PM
- ☐ Wednesday, April 24; 7:30 AM Noon

Volunteers Needed

Volunteers are desperately needed, especially for registration, and for judging oral and poster sessions, if you are interested please indicate your interest in your Registration form.

Contact:

For Judging: Ann Draucker, AnneDraucker@chevron.com For Registration: Pam Whitney, pamhwhit@mac.com

The Venue

The meeting is being held in downtown Monterey, California. Temperatures are mild in April (40-70°F), with a possibility of rain showers and/or fog.

Convention Hotel

Portola Hotel & Spa: http://www.portolahotel.com/

2 Portola Plaza

Monterey, CA 93940 Phone: 1-800-342-4295 Fax: 1-831-649-4115

Hotel Accommodations

A block of rooms has been reserved at a discounted rate at the meeting venue hotel, the Portola Hotel & Spa, 2 Portola Plaza, Monterey, CA 93940.

The deadline for the hotel reservation at the discounted rate of USD \$169 + tax/standard room is March 27, 2013. Any reservation requests received after the deadline date will be available on a space and rate available basis only. To make hotel reservations proceed to the PSAAPG website http://psaapg.org/upcoming-events/ and click on the "Click Here" button under Hotel location information.



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PSAAPG/SPEI TECHNICAL SCHEDULE

Saturday, April 20

0800 & 0900	Field Trip Departures
	Field Trip:The Monterey Formation in the Santa Lucia Area and Monterey Area
	(Honoring Bob Garrison) – PSSEPM
	Field Trip: Introduction to the Geology of the Point Lobos Reserve for K-12
	Educators, Students, & Guests - PSSEPM
0800 - 1700	PSSEPM Course: Sequence Stratigraphy for Students
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0800 - 1300AAPG K-12 Teacher Session 0900 - 1700**Exhibit Decorator Move-In** 1000 - 1400**Registration Set Up**

1500 - 1800**Registration Open**

1700 - 2200**IBA Sessions - Preparation & Presentations**

Sunday, April 21

0700 - 1730	Speaker/Judges Room
0800 - 1300	Field Trip Departures
	Convergent Margin Tectonics across Central California Coast Ranges
	Pacheco Pass - NCGS
	Oceanography Research Laboratory Visits for K-12 Educators Moss Land-
	ing Marine Labs & Monterey Bay Aquarium Research Institute – PSSEPM
0800 - 1600	Exhibitor Move-In
0800 - 1800	Registration
0800 - 1800	Volunteer Lounge available
0800 - 1700	SJGS/LABGS/CGS Course: Monterey Formation Seminar and Core Workshop
0800 - 1700	SPE Student Session
0800 - 1700	SPE Course-Modern Well Test Analysis
0800 - 1700	SPE Course-Reservoir Surveillance of Mature Floods Using Streamline- based
11.00	Workflows
0800 – 1700	SPE Course-Data Mining Techniques for Production Optimization
0800 - 1700	SPE Course-Topics in Numerical Methods for Reservoir Simulation
0800 - 1700	SPE Course-Air Injection-Based Oil Recovery Processes
0800 - 1700	SPE Course-Carbon Capture and Sequestration
0800 - 1300	AAPG K-12 Teacher Work Shop - Exploring Ocean Margins
1300 - 1800	Speaker/Judges Room
1530 – 1700	Spouse Wine Tasting/Concierge
1800 – 2000	Icebreaker in Exhibit Hall

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Monday, April 22

Pacific Section Convention

0700 - 0745	Speakers/Judges Breakfast
0700 - 1730	Speaker/Judges Room
0730 - 1700	Registration
0700 - 0800	AAPG-HOD Breakfast
0800 - 0930	Guest/Spouse Coffee
0800 - 1830	Exhibitors/Posters Open
0800 - 1700	Technical Sessions
0800 - 1700	Committee Meeting Room
0900 - 1100	AAPG K-12 Teachers Lab - Build your own Underwater
	Robot (or 1pm - 3pm)
1130 – 1315	PSAAPG Convention Luncheon
1600 - 1645	Student Activity - Guest Panel: Getting a Job and Succeeding
1645 – 2100	YP Activity - Speed Mentoring & Networking Reception
1700 – 1830	Beer Mini-Breaker w/ Exhibitors

Tuesday, April 23

0700 - 0830	DPA Breakfast
0700 - 0745	Speakers/Judges Breakfast
0730 - 1730	Speaker/Judges Room
0730 - 1600	Registration
0800 - 0930	Guest/Spouse Coffee
0800 – 1700	Exhibitors/Posters Open
0800 – 1700	Technical Sessions
0800 - 1700	Committee Meeting Room
1130 – 1300	WR-SPE Awards Luncheon
1130 – 1300	DPA Luncheon
1700 – 1830	SEPM Reception
1730 – 1930	YP (Young Professionals) Activity - "SWITCH" Movie - Open to all
1700 – 1830	Possible Beer Mini-Breaker w/ Exhibitors or Wine Reception

Wednesday, April 24

0700 - 0745	Speakers/Judges Breakfast
0700 - 1230	Speaker/Judges Room
0730 - 1200	Registration
0800	Field Trip Departures
	-Analogs for Coarse Grained Deep-Water Reservoirs - Carmelo Forma-
	tion (Paleocene), Point Lobos State Reserve, California – PSSEPM
	-San Andreas Fault & San Juan Bautista Mission – SJGS
0800 – 1400	Exhibitors/Posters Open
0800 - 1200	Technical Sessions
0800 - 1200	DEG/EMD Short Course: Protecting Assets with Environmental Base-
	line and Ground Water Monitoring; Not Just for Hydraulic Fracturing
	Programs
1300 – 1700	SJGS Short Course: An Introduction to Working With Ancient Electric
	Logs

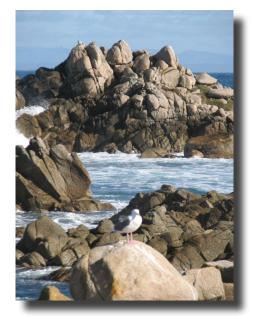




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Pacific Section Convention

2013

Western Regional Meeting



0800 – 1700 SJGS Short Course: Geologic Data For Petrophysics: What Your Log

Analyst Needs To Improve the Results

1400 – 2000 Exhibitor/Decorator Tear Down

1400 – 1700 PSAAPG Executive Committee Meeting

1700 – 1900 Convention Committee/President's Reception

Thursday, April 25

0700 & 0800 Field Trip Departures

-Exploring the Transition from a Submarine Canyon to its Depositional Apron, Upper

Cretaceous Pigeon Point Formation (Honoring Don Lowe)

-The Salinas Basin Petroleum System and Its Outcrop Expression, Central California

Friday, April 26

0800 Field Trip Departures

-Fracture Characterization of Monterey Formation Outcrops at Montana de Oro State

Park

Local Convention Committee

PSAAPG Co-chair Paul Henshaw SPE Co-chair Louise Castanier

Technical Session Co-chairs Tim McHargue, Med Kamal, Andrea Fildani Field

Trip & Short Course Co-Chairs Stefano Mazzoni, Courtney Marshall,

Herve Gross

Poster Session Co-chair Dan Strumer

Student Calvin Lee, Emily Fisher
K-12 Angela Hessler, Ellen Metzger

Exhibits Chair Ken Peters

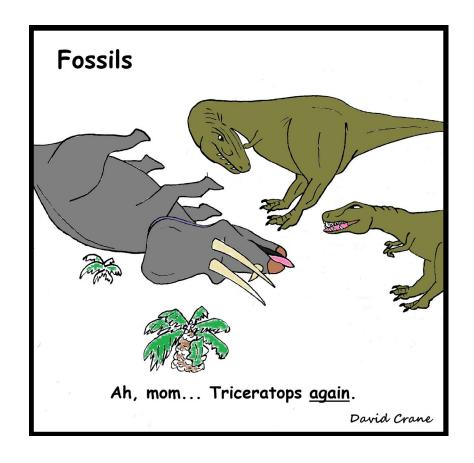
Registration Co-chairs Greg Hummel, Bolivia Vega

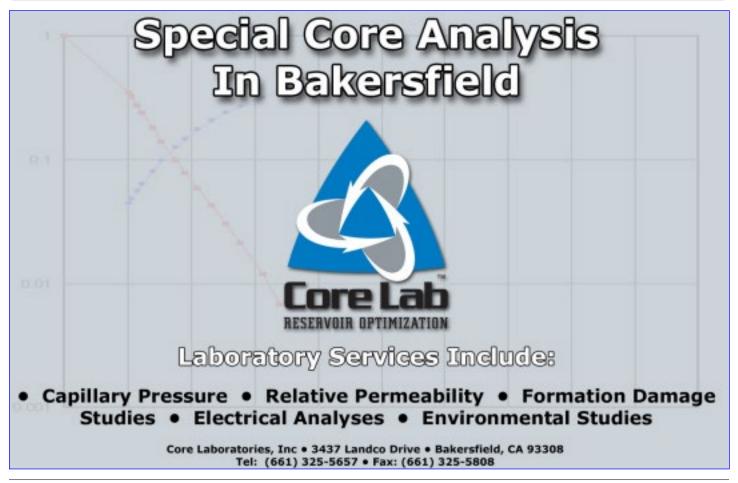
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2012 DRILLING ACTIVITY-SACRAMENTO VALLEY

On February 20, Consulting Geologist Roland Bain made a presentation on 2012 Sacramento Valley Drilling Activity to the Sacramento Petroleum Assn. Below is a summary of his presentation.

Record lows were established in four (4) major categories in the Sacramento Basin during 2012: number of holes drilled, number of gas-well completions, number of Operators, and volume of gas produced:

Number of holes drilled 12 Number of completions 11 Number of Operators 3 Volume of gas produced 49 Bcf

Two key factors stand out as reasons for last year's dismal record —the high prices of oil and the low price of gas, the latter a result of the strong supplies of gas in the U.S. Only those Operators with lease obligations would drill a half million- to million-dollar well with the expectancy of recovering that investment in a timely manner from today's well-head prices. The average annual well-head price for 2012 was \$2.89 (PG&E formula).

The three (3) Operators in 2012 were: Royale Energy, Venoco, Inc. and Vintage Production of California. Royale drilled 2 holes, completed 1 and abandoned 1. Venoco drilled 3 holes and completed the 3. Vintage drilled 6 and completed each as gas wells. Vintage's drilling, all at Rio Vista, is noteworthy in that each of its 6 holes had total depths greater than 10,000 feet, two of the holes having bottomed below 12,000 feet. The notable surprise for the year was Venoco's virtual absence. Venoco has been the drilling force in the Valley in recent years as evidenced by the five-year period — 2007 – 2011. During this period Venoco averaged 88 holes a year (126 holes in 2007).

Regardless of the fact that high oil prices have drawn many Operators away from this gas province a recent, significant transaction is certain to result in a major change in the drilling tempo in the Valley. Oxy's purchase of Venoco's properties in the Valley predictably should have far-reaching implications. It's logical to predict the impact this will have as illustrated by the following: In 2010 Venoco accounted for 83% of all drilling along with 89% of all completions. During 2007 and 2011, Venoco drilled 72% of all holes and completed 76% of all gas wells in 2007 and 75% in 2011. It's difficult to envision most Operators drilling 10 to 20 acres spacing in gas country as Venoco has done in the Grimes area.

Oxy's ownership of Vintage, last year's top Operator, and its taking over Venoco's properties conceivably could lead to its expanding its presence in the Valley although Vintage's primary drilling focus has been in the Rio Vista field. On the other hand, on-going low well-head price for gas could negate this.

Commensurate with the major drop in drilling activities was the drop in projects for the Drilling Contractors. Those contractors that operated in the Valley last year were Enign (3 holes), Paul Graham (3 holes) and Helmerich & Payne (6 holes). The fact that last year's drilling projects were strongly on the low-risk side is borne out by the well classifications. Ten (10) of the 12 holes were drilled as Development holes. Only two of the holes were granted Confidential Status, one (1) an Outpost hole, another a New Pool attempt. Again, at today's prices it's logical that Operators will continue drilling low-risk plays — assuming that any level of drilling actually occurs in the near term.

Last year's average price of \$2.89 is the lowest in over a dozen years. The average for 2011 was \$4.06. 2013 opened with slight increases in prices for the first two months: The gas price for January was \$3.50 versus \$3.18 a year ago, and for February, \$3.44 against 2011's \$2.81. Venoco continued as the top producer of gas in 2012. Its 587 wells produced 26,666,050 Mcf, with Vintage in second place at 13,598,592 Mcf. Currently there are fifty (50) producers in the Valley (DOGGR's District 6). Not surprisingly, Venoco filed the most Permits in 2012: 234 Reworks, 8 Abandonments, and 44 Supplementary (changes to existing permits). The Valley's 1240 gas wells produced 49 Bcf of gas last year. This compares with 67 Bcf produced by 1331 wells in 2011. Another decrease was registered in the estimated Remaining Reserves of 733 Bcf. This compares with 791 for 2011. One can only wonder about well-head prices in 2013 and, accordingly, what drilling plans the industry might have. Without question, it will be a very different year with Venoco out of the picture.

Dale Kunitomi of the Coast Geological Society provided the information for this page and page 19. In the mid-1900's, many major oil companies built and occupied downtown Los Angeles buildings. Dale's pictures below remind us of the days when Los Angeles was a hub of the oil industry. **Thanks, Dale,** for doing research and providing past and modern photos of these buildings. He also provided the table on page six that lists the address of the building and it's current day usage. - *Tim Elam*



Getty/Tidewater Bldg.-date unknown



Arco Towers- +/- Today



Arco Towers- under construction mid-1960's



Mobil Bldg. (General Petroleum)-1951



Mobil Bldg. +/- 2005



Texaco Bldg. +/- today



Douglas Oil Bldg. - 1959

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6th & Flower St (NW corner)

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6th & Flower St (SE corner)

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6th & Flower St

10889 Wilshire Blvd

1630 Olympic Blvd

800 S. Flower St

1201 W. 5th St

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SJGS participates in SPE Engineering Day

San Joaquin Geological Society members Laura Bazeley, Tim Elam, Rob Negrini, and Vaughn Thompson participated in the 13th annual "Career Day" event at Cal State Univ.- Bakersfield on Feb. 22. Sponsored by the Society of Petroleum Engineering, more than 500 students and teachers from Kern County high schools attended the event. The engineering and geologic communities are greatly connected in Kern County. The event featured displays from many businesses and organizations that employ geologists and engineers. Also, speakers talked about projects that scientists are involved with and educational considerations for becoming an engineer. Negrini spoke about how CSUB students are involved in research on water and carbon sequestration. Bazeley, Elam, and Thompson interacted with students via displaying oil saturated core, minerals, and geology career pamphlets.





Hydraulic fracturing talk generates great interest at Coast GS meeting

On Feb 19th 2013, over 100 members and guests of the Coast Geological Society gathered to hear Tupper Hull, the Vice President of Strategic Communications for the Western States Petroleum Association, deliver a talk titled "An introduction to hydraulic fracturing and its application to oil and gas development in California". In anticipation of this controversial topic in the oil industry, Tim Kustic, the State Oil and Gas Supervisor, flew in to personally attend. The talk covered the "sensationalistic media coverage that has brought heightened public scrutiny of the practice," but Mr. Hull also discussed the potentially positive economic implications for the State of California if fracking can help to unlock future oil production from the enigmatic Monterey formation. As anticipated the talk was followed by a lively question and answer session.- submitted by CGS President Peter Morris

SJGS seeks sponsors for annual golf tournament and BBQ

The San Joaquin Geological Society is seeking sponsors for its' largest event of the year...the annual Golf/BBQ day: Sept 14, 2013. Many generous companies continue to support the SJGS major fundraising event for the year. Financial support not only defrays expenses associated with the event, but allows SJGS to provide financial and technical assistance to educational and non-profit institutions throughout the year. If interested in learning more, please contact Kathy Smith, PacSeis Inc.; E-Mail: kathysmith@pacseis.com Tel: 661.322.1171.

Alaska Geological Society

- March 21 General Meeting: "Cook Inlet Exploration;" SPEAKER: David Allard, Apache, New Ventures Exploration Manager. (Joint Meeting with Geophysical Society of Alaska.)
- April 18 General Meeting: "The Mighty Matanuska: An Aerial Mapping Study;"
 SPEAKER: Jana DaSilva, Aerometric, Manager and Geologist.

Coast Geological Society

- March 19 General Meeting: "It looks Easy on Paper- Problems and Issues to Re-abandon wells for UIC and Construction- Area of Review (AOR) and Well Diagramming;" SPEAKERS: Greg Stephens (Petroleum Engineer) and Nick Arbour (Senior Petroleum Engineer), InterAct, Ventura.
- April 16 General Meeting: "Hydrostratigraphic Model of the Oxnard Plain using TEM Geophysics;" SPEAKER: Tim Moore, United Water Services.

L.A. Basin Geological Society

- March 28 General Meeting: "The Application of Source Rock Geology and Petrophysics to Unconventional Shale Reservoirs;" SPEAKER: Dr. Jean Kulla, PG.
- April: No meeting due to PSAAPG Convention

Northern California Geological Society

- March 4 General Meeting: AAPG Distinguished Lecture: "3-D Seismic Reflection and Borehole Expression of Tectonically-controlled Deep-Marine Reservoirs: Examples from the Northern North Sea Hydrocarbon Province;" SPEAKER: Christopher A.L. Jackson, Department of Earth Science and Engineering, Imperial College. (NOTE meeting will be at Chevron, San Ramon, Time TBA.)
- March 27 General Meeting: "Applications of Cosmogenic-nuclide Geochemistry and Low-Temperature Thermochronometry to Earth Science Processes;" SPEAKER: Dr. Greg Balco, Berkeley Geochronology Center.
- April: No meeting due to PSAAPG Convention

Northwest Energy Association

Sacramento Petroleum Association

 March 20 General Meeting: "Subsea- The Still Expanding Frontier for Oil and Gas;" SPEAKER: Neil Delfino, Chemical and Petroleum Engineering, University of California, Berkeley.

San Joaquin Geological Society

- March 12 General Meeting/AAPG Distinguished Lecture: "Experimental Stratigraphy;" SPEAKER:
 Chris Paola, CSE Dinstinguished Professor, University of Minnesota.
- April 9 General Meeting: Topic To Be Announced, SPEAKER: Steven Testa, Executive Officer, California State Mining and Geology Board.

Alaska Geological Society

www.alaskageology.org

P. O. Box 101288 Anchorage, AK 99510 Contact: Eric Cannon eric cannon@golder.com



Luncheon meetings are held monthly September through May, usually on the third Thursday of the month, at the BP Energy Center (1014 Energy Court) from 11:30 a.m. to 1:00 p.m. The hot lunch cost is \$20 for members with reservations; \$22 for non-members with reservations; and \$25 without reservations. The box lunch cost is \$13 for members with reservations, \$15 for non-members with reservations, and \$18 without reservations. For reservations, call the AGS reservation voice mail at 907-258-9059 or contact David Hite at hiteconsult@acsalaska.net by noon on Monday before the meeting.

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Vice-President: Monty Mabry m o n t e . m a b r y @ b p . c o m

Secretary:Eric Cannoneric_cannon@golder.comTreasurer:Alan Hunterpaleoman@mac.comPast-President:Ken Helmoldken.helmold@alaska.gov

Coast Geological Society

www.coastgeologicalsociety.org

P. O. Box 3055 Ventura, CA 93006 Contact: Peter Morris 805.745.2149



Dinner meetings are held monthly September through May, usually on the third Tuesday of the month, at the Poinsettia Pavilion, 3451 Foothill Road in Ventura. Social hour starts at 6:00 p.m., dinner is served at 7:00 p.m., and the talk starts at 8:00 p.m. The cost of dinner with reservations is \$20 (members), \$25 (non-members), or \$10 (students and K-12 teachers); the talk is free. For reservations, please email Jerry Nichols (secretary@coastgeologicalsociety.org). Reservations should be made by 4:00 p.m. on the Friday before the meeting.

President: Peter Morris 805.745.2149 president@coastgeologicalsociety.org Past President: John Harris pastpresident@coastgeologicalsociety.org Vice President: Robert Dame vicepresident@coastgeologicalsociety.org Secretary: Dion Lobreau secretary@coastgeologicalsociety.org Treasurer: Christine White treasurer@coastgeologicalsociety.org

Los Angeles Basin Geological Society

www.labgs.org

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

Contact: Bill Long 213.225.5900 x 205



Luncheon meetings are held monthly September and October; and January through June, usually on the fourth Thursday of the month, in the Monarch Room at The Grand at Willow Street Conference Centre (4101 E. Willow Street) in Long Beach. Lunch is served at 11:30 a.m., and the talk starts at 12:15 p.m. The cost is \$20 (with reservations), \$25 (without reservations), or \$5 for students. Reservations can be made online at www.labgs.org or by contacting Marieke Gaudet at 562.624.3364 or marieke gaudet@oxy.com. Reservations must be made prior to Tuesday before the meeting.

President: Bill Long 213.225.0205 william.long@breitburn.com

Vice President: Jean Kulla 949.500.3095 k2mobile@.com

Treasurer: Bert Vogler hvogler@kleinfelder.com
Secretary: Graham Wilson Gwilson@SHPI.net

Northern California Geological Society

www.ncgeolsoc.org

9 Bramblewood Court Danville, CA 94506-1130 Contact: Barb Matz

nville, CA 94506-1130 Barbara.Matz@shawgrp.com



Evening meetings are held monthly September through May, usually on the last Wednesday of the month, at the Masonic Center (9 Altarinda Road) in Orinda. Social hour starts at 6:30 p.m., and the talk starts at 7:00 p.m. (no dinner). For reservations, contact Dan Day at danday94@pacbell.net before the meeting. Cost is \$5 per regular member; \$1 per student member; and \$1 per K-12 teachers.

Continued on next page

NCGS Officers:

tom.barry@shawgrp.com President: Tom Barry Program Chair: John Karachewski cageo@sbcglobal.net danday94@pacbell.net Secretary Dan Day Phil Reed philecreed@yahoo.com Treasurer Membership Chair Rob Nelson rlngeology@sbcglobal.net **Newsletter Editor** Mark Detterman mdetter1@gmail.com Field Trip Coordinator tridibquha@vahoo.com Tridib Guha Past President Mark Sorenson msorenson64@earthlink.net Scholarships Phil Garbutt plgarbutt@comcast.net K-12 programs Paul Henshaw candphenshaw@comcast.net

Northwest Energy Association

www.nwenergyassociation.org

P. O. Box 6679 Portland, OR 97228-6679 Contact: Tim Blackwood 503.656.0156



Breakfast meetings are held monthly September through May, usually on the second Friday of the month, at the Multnomah Athletic Club (1849 SW. Salmon Street) in Portland. Meeting time is at 7:30 - 9:00 am. The cost is \$18. For information or reservations, contact Steve Walti.

President Tim Blackwood tblackwood@pacificgeotechnicalllc.com

Treasurer Steve Walti steven.walti@nwnatural.com

Sacramento Petroleum Association

P. O. Box 571 Sacramento, CA 95812-0571 Contact: David Hartley 530.304.4277



Luncheon meetings held monthly January through November, on the third Wednesday of the month. Location: Club Pheasant Restaurant in West Sacramento. The meetings starts at noon. The cost is \$16 -\$20. For information or reservations, contact Pam Ceccarelli.

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Vice-President:	David Hartley	530.304.4277	drilmax1@aol.com
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Editor/Treasurer	Pam Ceccarelli	916.439.0400	pc626@comcast.net

San Joaquin Geological SocietyP. O. Box 1056Contact: Vaughn Thompsonwww.sanjoaquingeologicalsociety.orgBakersfield, CA 93302vaughn_thompson@oxy.com

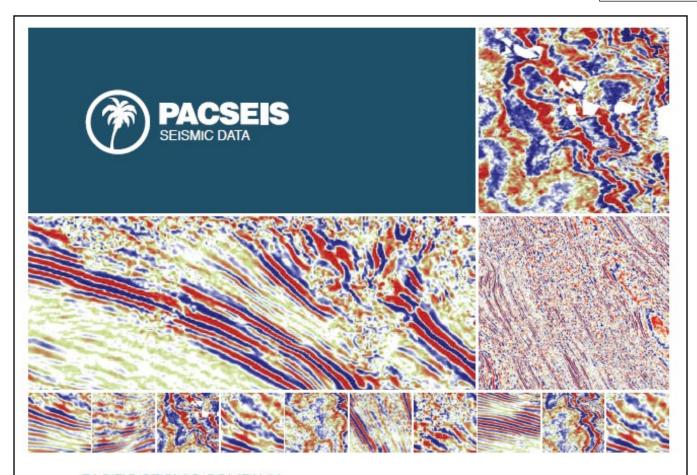


We have dinner meetings on the second Tuesday of the month at the American Legion Hall at 2020 "H Street" in Bakersfield. There is an icebreaker at 6:00 pm, dinner at 7:00 pm, and a talk at 8:00 pm. Dinner is \$25.00 for members with reservations and \$30.00 for nonmembers and members without reservations, and the talks are free

President: Vaughn Thompson vaughn_thompson@oxy.com
Past President: Tim Elam kyrocks@peoplepc.com
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