



March 2005

Los Angeles Basin Geological Society Newsletter

March Meeting: Hilario Camacho – Signal Hill Petroleum, Inc.

Will speak on

Evidence for Generation and Migration of Hydrocarbon along Thermally Anomalous Faults in the Los Angeles Basin

Speaker Synopsis / Abstract

Dr. Hilario Camacho is chief geoscientist with Signal Hill Petroleum, Inc. in Long Beach, CA. Dr. Camacho obtained his M.S. degree at California State University, Long Beach and his Ph.D. at the University of California, Santa Barbara. Dr. Camacho's research interests are focused on fluid flow in sedimentary basins, oil generation and migration, siliciclastic diagenesis, and turbidite facies architecture and process sedimentology.

Petroleum generation and migration models confront special difficulties when applied to basins with high subsidence rates and complex thermal histories. Oil exploration and production in the Los Angeles basin have provided a wealth of subsurface data, which combined with the complex thermal and structural history of the basin, provide a unique setting on which to evaluate the effects of faulting on the geothermal gradient and hydrocarbon generation and migration.

Previous studies of organic matter maturation in the Los Angeles basin have assumed that oil generation takes place mainly on the deepest part of the central syncline, or structural lows, from Miocene age rocks, laterally migrating to fill the structural highs associated with complex fault zones. These previous studies, however, assume a simple thermal history and do not account for the complex thermal regime of the basin. The fact that most of the oil fields in the basin have very thick production intervals (over 2000 meters in some fields) with multiple stacked reservoirs, the association of oil accumulation with fault zones, and the compositional differences both vertically and horizontally of the oils, cannot be fully explained by existing oil generation/migration models.

In this study, the role of faults on heat distribution and the generation and migration of hydrocarbons have been assessed from temperature, oil geochemistry and C isotope data. Temperature data suggest that the fault zones are responsible for bringing deeper, hotter fluids to shallower depths causing the observed variations in geothermal gradient and the thermal anomalies associated with faulting. Results suggest that structural highs associated with complex fault zones and high geothermal gradient in the Los Angeles basin may act as secondary petroleum generation areas for overlying structures. Time-temperature modeling suggests that the onset of oil generation in anomalously high geothermal gradient areas can occur hundreds of thousand years earlier than in the cooler structural lows. This study provides a new framework for the exploration of potentially productive areas not previously recognized in structurally complex basins.

You can contact Dr. Camacho at his e-mail address: camachoh@shpi.net

Time & Place

Time:

Thursday, March 24, 2005

Typical Meeting Agenda

Lunch Served: 11:30 AM to 12:00PM

Announcements: 11:50 AM to 12:15 PM

Guest Speaker: 12:15 PM to 12:45 PM

Place:

The Grand at Willow Street Conference Center located at 4101 East Willow Street, Long Beach, CA. (562-426-0555). Take Lakewood Boulevard south from the San Diego Freeway (405), turn west onto Willow Street and turn right onto Grand Avenue at the sign for the Center. Park free in the garage structure.

Cost

Cost:

Lunch and Speaker: **\$20.00 with reservations**
\$25.00 without reservations
Student: **\$ 5.00 (Lunch and Speaker)**

Reservations:

Make your reservations using our web site at www.labgs.org, emailing iaburto@breitburn.com or calling Ivan Aburto at (213) 225-5900 ext. 234.

Reservations must be made prior to Tuesday before the meeting.

LABGS Future Meetings

Lunch meetings are held at *The Grand at Willow Street Conference Center*. Lunch starts at 11:30 AM

2005 Speaker Schedule

March 24, 2005 – **Hilario Camacho, Signal Hill Petroleum, Inc.**

Evidence for Generation and Migration of Hydrocarbon along Thermally Anomalous Faults in the Los Angeles Basin

April 28, 2005 – **Dan Francis, CSULB**
Offshore Palos Verdes Fault

May 26, 2005 – **Jim Dolan**
Faults of the LA Basin

June 23, 2005 – **TBD**
TBA

July & August 2005
No Meetings – Summer Field Season

Announcements / Information

Teacher of the Year Award Winner **Jim Mears**

As part of our mission to support youth education activities, the Los Angeles Basin Geological Society in cooperation with PSAAPG is proud to announce **Jim Mears**, as our 2005 award winner of Excellence in the Teaching of Natural Resources in the Earth

Sciences. Jim is a science teacher for a home school education program in San Marcos, CA, concentrating on K – Eight graders.

Jim has been teaching for 42 years and has a strong interest in Geology, Science, Paleontology and the natural sciences. Because of his interests, Jim has designed most of his classes and workshops around fossils, and minerals while using the field as his primary laboratory.

This award is intended to recognize and encourage excellence in teaching earth science at the K-12 level. Jim will receive a cash award totaling \$500 (\$250 from LABGS and matched by Pacific Section of the American Association of Petroleum Geologists, our parent organization.) to use in the school's science program or attend science conferences and/or training seminars. In addition, Jim will be the LABGS entry into the Pacific Section AAPG Teacher of the Year 2005 award. We are planning to present Jim this award at a future meeting, when his schedule permits (announced in a future newsletter).

Thanks to Karla Tucker for heading this most important committee



Guidebooks from the 2004 LABGS Field Trip Examining the Catalina Schist and the Palos Verdes Peninsula are now on sale!

The guidebook will be available at the LABGS meeting on March 24, 2005. The cost of the guidebook is \$20. The book is 179 pages and printed in color. There is enough detail to allow you to recreate the trip on your own. The Guidebook was edited by Dick Brown who organized and led the trip on June 26, 2004. You may also purchase a copy by contacting Dick Brown, via email or by phone (see list of contacts, this newsletter). **Photos of the trip are now posted on our web site at www.labgs.org. Check them out!**

2005 Student Recognition Awards

The Los Angeles Basin Geological Society is pleased to offer **two scholarship awards** as a form of encouragement and recognition to those College students who show dedication and passion to the field of Geoscience. It is our goal to help future geoscientists on in their pursuits. Both of these awards consist of a Brunton Compass and a wall certificate.

The Don Clarke Brunton Award

The Don Clarke Brunton Award is given to a qualified student graduating from an LA Basin Community College with an Associate Degree, enrolled in a Geology or Earth Science curriculum with plans to pursue a baccalaureate degree in Geology or the Earth Sciences.

AWARD QUALIFICATIONS

To qualify for this LABGS award, the student must meet the following criteria:

1. Plan to graduate in 2005 with an Associate Degree from a Los Angeles Basin Area Community College.
2. Complete a Geology or Earth Science curriculum.
3. Must be pursuing plans to enroll in a four-year college or university with Geology, Geological Sciences, or Earth Science as their designated major.

The LABGS Brunton Award

The LABGS Brunton Award is given to a qualified undergraduate student attending a four-year LA Basin College or University currently pursuing a baccalaureate degree in Geology or the Earth Sciences.

AWARD QUALIFICATIONS

To qualify for this LABGS award, the student must meet the following criteria:

1. Be enrolled as an undergraduate at a college our university in the LA Basin
2. Have declared majoring Geology, Geological Sciences or Earth Sciences

REQUIREMENTS FOR NOMINATION ARE THE SAME FOR BOTH AWARDS.

Nominees for these awards are submitted by a faculty member of the nominee's LA Basin College or University. The faculty member must:

1. Fill out and sign the LABGS Award Form.
2. Submit the required documentation by the due date of May 23, 2005.

SELECTION PROCESS

The elected officers of the LABGS will select the most qualified candidates based on the following criteria:

1. Grade point average in earth science classes.
2. An enthusiastic or special recommendation from the college advisor, department chair, or mentor professor.

NOTIFICATION OF AWARD

All Applicants will be notified once selection process has ended. Notification will be done via mail. The Award will be presented at the LABGS luncheon meeting on June 23, 2005. The winner will be invited to attend the luncheon.

To find out more information on these recognition awards or to get an application, go to our website:

www.labgs.org

LABGS Annual Field Trip to San Clemente - Summer 2005

Plans are under way to get our annual field trip organized. Mark Legg will be leading a trip along the coast near San Clemente and San Onofre. The purpose will be to examine turbidite rocks along with tectonic evidence of the south coast. A final date will be forth coming.

Your Name Here!

Advertising in this newsletter is now available! Advertising rates for a business card size add are \$60.00 for six issues. These fees help offset our publishing costs. If interested, please contact Dalton Lockman

BAY, BASINS, BASEMENT & BEYOND



Mark your Calendar for the 2005 Joint Meeting of the Pacific Sections of AAPG, SPEM, SEG and the Cordilleran Section of GSA

The Pacific Sections of AAPG, SEPM, SEG and the Cordilleran Section of GSA are planning for a combined annual meeting in 2005, which will be held in San Jose, CA **April 29 - May 1**. The theme is "Bay, Basins, Basement, and Beyond". This will be a most impressive meeting of geoscientists from all over the western US. For more information on the scheduled program and a copy of the abstract submittal form, go to the www.psaapg.org web site and visit the "convention" tab.

LABGS Membership Info!

Become a member of the LABGS and enjoy the benefits of membership. Our goal is to provide a value added service to the geologic community of the LA area at a reasonable cost. If you join the LABGS you also become a member of the PSAAPG and vice versa. The purpose of this is to reduce waste and duplicated effort. Check out the membership form for a list of the dual membership benefits. Membership is our primary source of income so I urge you all to join or renew. **To join or renew**, fill out the attached membership form and mail it in to PSAAPG or better yet bring it to the next meeting. This will ensure you are on our lists and the only way you can request a hard copy through the mail. The use of E-mail is our preferred method of distribution so please make sure we have your address.

LABGS T-Shirts NOW ON SALE

The LABGS sells T-Shirts to generate additional funds to help support our scholarship and field trip activities. The shirt display's the LABGS logo on the Back with the words "LA Rocks" on the Front. The Price for shirts are \$15.00 and available at our luncheon meetings or by contacting Ivan Aburto (see contact list in this newsletter). Sizes are limited to Medium, Large, and Extra Large. **Buy one at the March Meeting!**

Contact Us – The LABGS board

President: Dalton Lockman (323) 298-2242
dlockman@plainsxp.com

Program Chair: Dick Brown (562) 598-0595
dickbrowngeo@adelphia.net

Secretary: Ivan Aburto (213) 225-5900, ext. 234
iaburto@breitburn.com

Treasurer: Steve Zigan, (949) 355-4467
szigan@eri-us.com

OUR WEB SITE ADDRESS IS:

www.labgs.org

WE'LL BE THERE



Epoch is one of the energy industry's leading suppliers of wellsite data gathering systems. Our drilling instrumentation products, well-site reporting software and mud logging services are industry leaders, and myWells.com allows you to access that information anytime, anywhere. That means you can make more timely decisions that deliver efficiency and economy. If real time, accurate wellsite information is important to you, call Epoch. We'll be there.

EPOCH

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www.epochwellservices.com • www.mywells.com

Boot Up for Calgary!

AAPG Annual Convention

June 19–22, 2005
Calgary, Alberta, Canada

Featuring hundreds of ways to reboot...

- Exhibits showcasing the latest technology
- 36 field trips and short courses
- CSPG Core Conference
- 8 concurrent oral sessions
- 64 poster sessions



American Association of Petroleum Geologists • Convention Department
1 888 945 2274 ext.617 • or 1 918 560 2617
convene2@aapg.org • www.aapg.org/calgary/



Register by April 15 and save! Register online: www.aapg.org/calgary/



Los Angeles Basin Geological Society Membership Form

Join the LABGS and become a member of the Pacific Section AAPG all for one low price of \$12.00 per year - 2 West Coast Geoscience Organizations for the price of one



Membership Benefits

- LABGS Membership
- Monthly Luncheon Meetings with Strong Technical Programs
- Pacific Section AAPG Membership
- Pacific Section AAPG Bi-Monthly Newsletter
- Discounts for PSAAPG Bookstore Publications
- Bi-Annual West Coast Geoscience Directory - *next edition 6/03*
- Networking and Social Opportunities with Fellow Geoscientists

Current Annual LABGS/PSAAPG Dues	
1 Year Option = \$12.00	\$ _____
3 Year Option = \$36.00	\$ _____

Extended E-Mail Announcement List Fees	
To receive meeting notices from SJGS and CGS	
1 Year Option = \$12.00	\$ _____
3 Year Option = \$36.00	\$ _____

PSAAPG Foundation Contributions	
B. Hacker Publication Fund	\$ _____
Martin Van Couvering Fund	\$ _____
Dibble Map Foundation	\$ _____
California Well Sample Repository	\$ _____
John Kilkenny Scholarship Fund	\$ _____
PSAAPG Foundation Trust Fund	\$ _____

TOTAL PAYMENT	
Total Amount Enclosed	\$ _____

Essential Member Information	
Last Name	_____
First Name	_____
Middle Initial	_____
E-Mail Address	_____
Mail Address	_____
<i>Res or Bus ?</i>	_____

Additional Directory Information					
Employer	_____				
Position / Title	_____				
Bus Phone #	_____				
Res Phone #	_____				
Fax Phone #	_____				
Spouse's Name	_____				
Education	<table style="width: 100%; border: none;"> <tr> <td style="border: none; text-align: center;"><i>Highest Degree</i></td> <td style="border: none; text-align: center;"><i>Year</i></td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> </table>	<i>Highest Degree</i>	<i>Year</i>	_____	_____
<i>Highest Degree</i>	<i>Year</i>				
_____	_____				
School	_____				

Signature _____

Annual membership is handled through PSAAPG and runs from July 1, through June 30. If you are already a current member of PSAAPG and you selected LABGS affiliation you are already a member of the LABGS.

**Please Make Checks out to PSAAPG and mail along with member form to:
PSAAPG P.O. Box 1072, Bakersfield, CA 93302**