



October 2006

Los Angeles Basin Geological Society Newsletter

October 26 Meeting: Dr. Rob Mellors

San Diego State University

Will speak on

Tectonics of the Imperial Valley

Speaker Synopsis / Abstract

Although the Imperial Valley in Southern California has been studied extensively, considerable questions remain about the exact architecture of the faults in the valley, especially in the western Salton Trough. Many of the faults are active, and an improved understanding of their structure would aid in estimating potential earthquake hazard and perhaps assist in assessing groundwater reserves.

A combination of geodesy and geology is used to refine the active tectonic structure of the Salton Trough. Interferometric synthetic aperture radar (InSAR) is a technique developed to map small surface movement from space. InSAR images of the Western Salton trough reveal clear signals related to groundwater withdrawal and tectonic movement. Close examination of the images show that the shallow groundwater reservoirs appear to be fault-bounded. This allows mapping of Holocene faults, even when the faults are not exposed at the surface. The amount of surface subsidence appears to be primarily controlled by subsurface lithology rather than the amount of the drop in groundwater levels.

Tectonic movement occurs mainly along a pair of conjugate faults and may be a long-lasting remnant of the 1987 Superstition Hills earthquake. A more subtle signal appears to mark the continuation of the Clark branch of the San Jacinto fault. This indicates that, although the fault is not exposed at the surface, it may undergo significant amounts of deformation. In turn, this implies that the San Jacinto fault

zone may be almost as important as the southern San Andreas in terms of accommodating the differential motion between North America and the Pacific Plate. However, it is not clear how motion along the Clark fault is transferred to the south and geological structures may not be completely compatible with large amounts of slip.

Rob Mellors is a staff scientist at the Department of Geological Sciences, San Diego State University, where he teaches courses in geological software and seismic interpretation. Prior to arriving at San Diego State, he was a Green Scholar at the Scripps Institution of Oceanography and also worked at the Center for Earthquake Research in Memphis, TN, along with brief stints at ARCO and Sohio. He has a B.S. degree in geology from Ohio State University, an M.S. in seismology from Cornell University, and a Ph.D. in seismology from Indiana University. Interests include the behavior of faults, radar remote sensing, the tectonics of Central Asia, and mud volcanoes, with over 20 articles and reports as well as numerous abstracts on these topics. He has conducted extensive field work in Central Asia and the Middle East. When away from work, Rob seems to spend most of his time fixing and renovating his house.

Meeting Time, Place, Cost and Reservations

Time:

Thursday, October 26, 2006

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:

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

Meeting 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, but walk-ons are always welcome.

Upcoming 2006 Speaker Schedule

October 26, 2006 – The speaker will be **Dr. Robert Mellors** – of SDSU speaking on “*Tectonics of the Imperial Valley*”.

November 16, 2006 (note the date change because of Thanksgiving) – The speaker will be **Dr. Kevin Grazier** of JPL - Pasadena speaking on “*The Cassini/Huygens Mission to Saturn and Titan*”.

No December meeting – Happy Holidays!

If you have a speaker suggestion, please mention it to a Board member !!

WE'LL BE THERE



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LABGS and the 2007 AAPG Convention field trips

The LABGS has offered to lead four field trips in conjunction with the national meeting. We need help with some of the trip help. If you have an interest and experience in field trips in the SoCal area please contact an officer to inquire about our needs. Please contact us now. We are working on day-trips to these areas:

Catalina Island Geology
The Santa Monica Mts Geology
Palos Verde Peninsula Geology
Los Angeles Urban Oil Fields

DAVID B. DEL MAR
Consulting Petroleum Geologist
California Registered Geologist #634
Development – Thermal EOR – Property Reviews

2027 Park Drive
Los Angeles, CA 90026

H (323) 664-3358
dbdelmar@earthlink.net

Announcements / Information

Jobs

Two groups have approached us with employment needs. They are:

Swift Energy (www.swiftenergy.com) with two fulltime positions in their new Carpinteria Office for a:

1. Senior Geoscientist and Team Leader
2. Senior Geoscientist

Please Contact Ed Duncan (805) 745-1981 or ed.duncan@swiftenergy.com

The Geology Investigations Unit of the Geotechnical and Materials Engineering Division of the Los Angeles County Department of Public Works has spots for an:

1. Engineering Geologist
2. Engineering Geologist Assistant

Please contact Greg K. Johnson - Supervising Engineering Geologist at (626) 458-4923, or gjohnson@ladpw.org

Elections

The votes were tallied and your officers for the 2006 – 2007 year will be:

Jon Kuespert – President
Steve Zigan – Treasurer

Thank you to all those voted, we still have openings for the Program Chair (all speakers are already lined up for the 2006-2007 year, and some for the following), and the Secretary spot. We will also need to replace the above individuals by the 2007-2008 year. WE NEED VOLUNTEERS!

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. **The 2006 recipient was Ms. Kathleen Nugal, a student at CSU-Dominguez Hills.** Ms. Nugal's award ceremony was held at the June monthly meeting.

The Society is currently looking for qualified applicants for the 2007 award.

SELECTION PROCESS

The above award winner was selected from candidates nominated by a faculty member. The winner was selected based on the following criteria:

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

The Don Clarke 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.

The Society is currently looking for qualified applicants for the 2007 award.

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

- Plan to graduate in 2006 with an Associate Degree from a Los Angeles Basin Area Community College.
- Complete a Geology or Earth Science curriculum.
- Must be pursuing plans to enroll in a four-year college or university with Geology, Geological Sciences, or Earth Science as their designated major.

Fall Field Trip

We are working on a fall field trip for Jan - Feb of next year to the Laguna Beach area when the seasons change. We hope that you can join us. More information will be forthcoming in the Fall newsletters.

Your Name Here!

Advertising in newsletters is available!
Advertising rates for a business card size ad is \$90 for one year (9 issues). These fees help offset our publishing costs. If interested please contact a Board member.

President's Note

To all our members,

The 2006-2007 year was kicked off with a great presentation by Dr. Mike Clark. The talk was on the sequence Stratigraphy in a mature diatomite reservoir at Lost Hills oil field in the San Joaquin valley. This month's speaker is Dr. Rob Mellors of San Diego State University. Dr. Mellors will speak on the "**Tectonics of the Imperial Valley**". I hope that you can make it.

Last Saturday I was on the PS-SEPM fall field trip to the Palos Verdes Peninsula, led by Dick Brown, with the assistance of many people. The trip was overbooked, full of interesting stops and people, and a great way to spend a beautiful Saturday. Kudos for a great job to all the leaders. Catch it at the National Convention and you are in for a real treat!!

This year we are working in the direction of the National AAPG Convention, to be held this April 2-4 in Long Beach, CA . . . our backyard! We need volunteers to help with the field trips and other programs. Please volunteer, it is appreciated.

Thanks!

Jon

Contact Us – The LABGS Board

President: Jon Kuespert (213) 225-5900
jkuespert@breitburn.com

Program Chair: currently vacant

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

Secretary: currently vacant

OUR WEB SITE ADDRESS IS:
www.labgs.org



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**