



# San Joaquin Geological Society

**Date:** Tuesday, October 11, 2011

**Time:** 6:00 PM Social Hour  
7:00 PM Dinner  
8:00 PM Lecture

**Place:** American Legion  
2020 H St. Bakersfield, CA 93301

**PSAAPG Members & Mesozoic's**  
\$25 w/reservation  
\$30 without reservation

**Non PSAAPG Members**  
\$30 w/reservation

**Full-time Students with ID:**  
Free, Courtesy of Chevron & Occidental

## **SJGS WEBSITE**

<http://www.SanJoaquinGeologicalSociety.org/>

## **SJGS OFFICERS**

### **PRESIDENT**

**Tim Elam**

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### **VICE PRESIDENT**

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### **SECRETARY**

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### **PRESIDENT-ELECT**

**Jeff Gartland**

### **PAST-PRESIDENT**

**Jack Grippi**

## **Dr. Brigette A. Martini**

*Sr. Staff Geologist, Exploration Group, Ormat Technologies, Inc., 6225 Neil Rd., Reno, NV, 89511, [bmartini@ormat.com](mailto:bmartini@ormat.com)*

Dr. Martini received her B.S. in Geosciences, from UA, Tucson and her Ph.D. in Earth Science from UCSC where she focused on the use of advanced geothermal exploration techniques (primarily hyperspectral imaging). She has spent the majority of her career thus far in resource exploration (mainly geothermal and minerals) and basic research and instruction in advanced remote sensing fields (civilian and military). Dr. Martini took her current position with Ormat as Senior Staff Geologist in 2008. In this capacity, she is involved in active exploration and development projects domestically and abroad with major projects in Alaska, Hawai'i, Nevada, Oregon, and Washington.

## **The Geothermal Renaissance: Modern Exploration and Development in the Western United States**

The last five years has been a period of resurgence in geothermal exploration and development domestically and abroad. While driven by increased oil prices, incentivized federal fiscal policies, and broad energy security issues, the current geothermal renaissance is also attributable to technological advances and a renewed interest in potential lower-temperature resources (<350°F) not as economic ~25 years ago. A wide variety of 'traditional' exploration techniques are discussed with respect to their use in modern geothermal exploration including gravity, magnetic, seismic and electrical. While elements of survey design and interpretation are similar to exploration methods in both oil/gas exploration and metals exploration, the difficult issues surrounding permeability and thermal detection render geothermal exploration quite different from other resource exploration endeavors. Several new and/or repurposed exploration techniques and modeling processes will be discussed including airborne LiDAR, hyperspectral and electrical/magnetic surveys. In addition, case studies of currently operating and up-and-coming geothermal fields in the Western U.S. will be discussed that highlight legacy development and modern exploration and engineering techniques in use today. The engineering and scientific advances, made by companies like Ormat Technologies, Inc., have ultimately led the way to increased geothermal development potential by identifying new resources and allowing for lower utilization temperatures and more efficient energy production competitive with traditional energy sources.

## **\* RSVP \***

By: Friday, October 7, 2011

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or PayPal on the SJGS Website:  
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