

# Inland Geological Society

May 2009

Newsletter of the Inland Geological Society

Volume 25 No. 5

**This Meeting:**

Thursday,  
May 7th

**Time:**

Social: 6:00pm  
Dinner: 6:30pm  
Lecture: 7:00pm

**Location:**

LSA Associates  
1500 Iowa Ave  
Suite 200  
Riverside, CA  
92507  
(Map on Pg.4)

**Coming to  
Dinner?**

**Please RSVP:**

By Friday 5/1  
(951) 782-3295  
dlass@  
waterboards.ca.gov

**In this Issue:**

- May Speaker—Bob Reynolds ..... 1
- Upcoming Events/IGS Meeting Schedule..... 2
- Current IGS Officers ..... 3
- **LSA MEETING LOCATION MAP** ..... 3

**May Speaker:**

**Bob Reynolds**

LSA Associates, Inc., Riverside, CA



## **Stratigraphic Relationships in the Lower Barstow Formation, Mojave Desert, California**

Abstract

Researchers have stated, “Early Miocene extensional tectonic blocks are capped by the Barstow Formation,” implying that significant tectonism did not occur after about 17 Ma in the central Mojave Desert. A series of marker beds is recognized in the lower Barstow Formation that span the 16.2 Ma transition from the Hemingfordian to the Barstovian North American Land Mammal Age. Although the three to five beds are subject to facies change along strike and around the Miocene basin, their stratigraphic sequence remains constant. This sequence allows verification of the Barstow Fm in outcrops from Lenwood to Ludlow and from Ft. Irwin to the Stoddard Valley, an outcrop pattern covering approximately 600 square miles. Stratigraphic sections describe initial lake deposition in the Harvard area, and record westward movement of the depocenter. Sections with gravels document the uplift of northern and southern highlands. The outcrop pattern supports left-lateral dismemberment of the Barstow Formation during the late Tertiary. Problems with stratigraphic age control will be outlined.

**Biography:**

Bob Reynolds was introduced to the “Barstow Fossil Beds” as a school child by his parents. His studies at Pasadena City College and U. C. Riverside included biostratigraphic work in the Mud Hills and west end portions of the Barstow Formation. For 32 years as curator of earth science at the San Bernardino County Museum, he amassed large collections of fossils and tracks from high and low in the section that help define the Hemingfordian and Barstovian North American Land Mammal Ages. He joined LSA in 1999 and continues to unravel stratigraphic problems involving the Barstow Formation outcrops.

## **Upcoming Meetings/Events**

### **Rock & Gem Shows—Various locations**

Various rock and mineral shows will be throughout southern California. To find one nearest you, visit [www.rockngem.com/showdates.asp](http://www.rockngem.com/showdates.asp)

### **AEG—Inland Empire Chapter Meeting**



Dr. Jeff Keaton of MACTEC in Los Angeles, CA will be giving a talk on "Scour of Rock—Rates and Threshold Conditions" at the May AEG meeting. The meeting will be **Wed., May 20, 2009** at the Carrows Restaurant in Murietta, CA. For more information, please visit [www.aegsc.org/chapters/inlandempire/](http://www.aegsc.org/chapters/inlandempire/)

### **SME—Southern CA Section Field Trip**

SME will be leading a field trip to the Owens Valley, Lone Pine, Cerro Gordo and Darwin Mines. The field trip will be **May 15-17, 2009**. Reservations are required. For more information, visit [www.smenet.org/southerncalifornia/](http://www.smenet.org/southerncalifornia/)

### **South Coast Geological Society**

Eldon Gath of Earth Consultants International will be giving a talk on the "Quaternary Development of the OC" at the May South Coast Geological Society meeting. The next meeting will be **Mon., May 4th, 2009** at the Doubletree Club Hotel in Santa Ana, CA. For more information, visit [www.southcoastgeo.org](http://www.southcoastgeo.org)

## **IGS Meeting Schedule**

### **June 3, 2009 (Wednesday)**

Lisa Pierce/Suzie Earp, Water Resources Inst.  
*Resources available at the Water Resources Institute at Cal State University, San Bernardino*

### **July 2, 2009 (Thursday)**

Megan Shadrick, physics student at CSUSB  
*Lasers in Geology: A Two Part Analysis in Destructive and Non-Destructive Testing of Rocks and Minerals*

### **August 5, 2009 (Wednesday)**

TBA

### **September 3, 2009 (Thursday)**

Ray Herndon, OCWD / Dr. Tara Kneeshaw, CSUF  
*Battle to Provide Clean Water for a Growing Population*

### **October 7, 2009 (Wednesday)**

Thomas Deane, Deane Consulting  
TBA

### **November 5, 2009 (Thursday)**

TBA

### **December 2, 2009 (Wednesday)**

TBA

### **January 7, 2010 (Thursday)**

Baird King, Student at UCR  
*A Record of Climate Change in the Rock Creek Drainage of the Eastern Sierra Nevada, California*

### **Position Wanted—Reginald I. Agunwah**

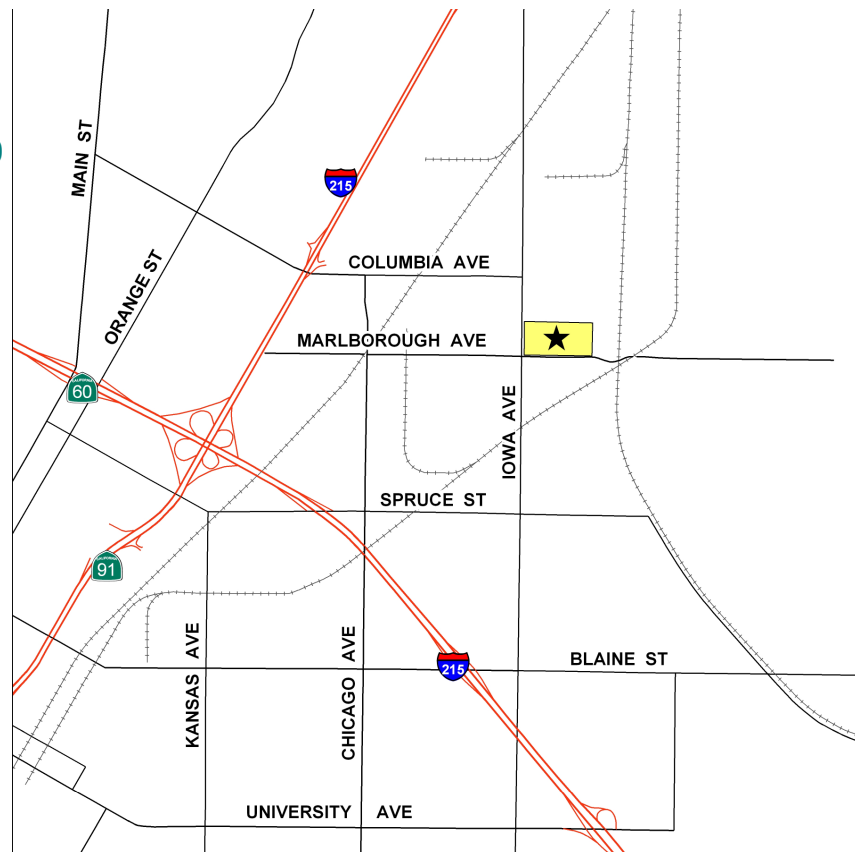
I have recently graduated from Cal Poly Pomona with a Bachelors of Science in Geological Sciences and a minor in Political Science. I have over two years experience as a Staff Geologist within the Environmental Geosciences. I would like to continue my career in water resources.

My experience entails technical performance of a variety of environmental, hydro-geologic and geologic services. Duties for groundwater monitoring well projects have included locating exploration borehole sites, lithologic logging, drilling and sampling of boreholes for conformational analysis, on-site maintenance and monitoring of groundwater remediation systems and observing trenching activities for impacted material. I also viewed the collection of soil samples for characterization of contaminants. Performed geotechnical site investigations, feasibility studies and engineering geological alternative evaluations for client's commercial tract development projects. Duties included developing approaches to obtain governing agency approval and coordinating with clients, consultants and agencies through completion of site development to meet geotechnical design input needs.

I have also performed geologic field mapping, subsurface exploration, groundwater monitoring, fault activity studies that resulted in optimization of land use, installation of groundwater monitoring wells and air sparge/soil vapor extraction wells, abandonment of damaged groundwater monitoring wells, and collected soil and groundwater sampling for analysis at a state qualified laboratory.

**IGS MEETING LOCATION:**

**LSA Associates, Inc.**  
**1500 Iowa Ave, Suite 200**  
**Riverside, CA 92507**

**2009 IGS OFFICERS****President**

Greg Johnson, LADPW  
 gjohnson@ladpw.org  
 626.458.4923

**Vice President**

Thomas Deane, Deane Consulting, Inc.  
 deanehydro@verizon.net  
 909.747.4515

**Web Mistress**

Marina West, Big Horn Desert View  
 Water Agency  
 wells.out.west@gmail.com  
 760-910-3264

**Treasurer**

Margaret Gooding, LSA Associates  
 Margaret.gooding@lsa-assoc.com  
 951.781.9310 x279

**Secretary**

Dixie Lass, Santa Ana RWQCB  
 dlass@waterboards.ca.gov  
 951.782.3295

**Web Master**

Ernie Roumelis, AKW Geotechnical  
 eroumelis@verizon.net  
 951.265.9849

**Newsletter Editor**

Shelby Harrell, CSU Fullerton  
 shelby.harrell@csu.fullerton.edu  
 760.680.0389

**Membership**

Steven E. Mains, Watermaster  
 Support Services  
 watermains@aol.com  
 951.780.5636

**Inland Geological Society Newsletter**

c/o Shelby Harrell  
14982 Farmington Street  
Hesperia, CA 92345