

Inland Geological Society

November 2014

Newsletter of the Inland Geological Society

Volume 30 No. 10

This Meeting:
Wednesday,
November 5th

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

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

Coming to
Dinner?
Please RSVP:
By Monday 11/3
(951) 784-2168
dixie.lass@att.net

In this Issue:

- November Speaker – Ali Snowden..... 1-2
- Upcoming Events/IGS Meeting Schedule..... 3
- Current IGS Officers..... 3
- **LSA MEETING LOCATION MAP** 4

November Speaker:

Ali Snowden

Geology Student, California State University, San Bernardino, CA

The Characterization and Analysis of Quaternary Lava Flows from Nye Co, NV

Abstract

Three Quaternary lava flows from Nye Co. NV, were analyzed petrographically and geochemically to compare possible relationships among these flows, and basalts from Lunar Crater Volcanic Field. Two of these flows are from the Golden Gate Range on the east side of the Grant Range; one can be classified as a trachyandesite the other a basaltic andesite. The third flow, in the Mud Springs Basin on the west side of the Grant Range, is classified as basalt. The trachyandesite contains sparse phenocrysts of plagioclase, usually showing inclusion-rich cores, clinopyroxene, orthopyroxene, and microphenocrysts of Fe-Ti oxide set in a fine-grained groundmass. The basaltic andesite contains phenocrysts of olivine, yellow-brown clinopyroxene (some showing hourglass structure), simply twinned plagioclase usually showing a thin outer zone, and microphenocrysts of Fe-Ti oxide set in a plagioclase-lathe-dominated groundmass showing well-developed flow textures. The size and quantity of phenocrysts for this flow tend to decrease from the top of the flow to the bottom third of the flow where size and quantity of phenocrysts then increase again to the base of the flow. The Mud Springs flow is distinctively different than the others, vesicular, and contains large phenocrysts

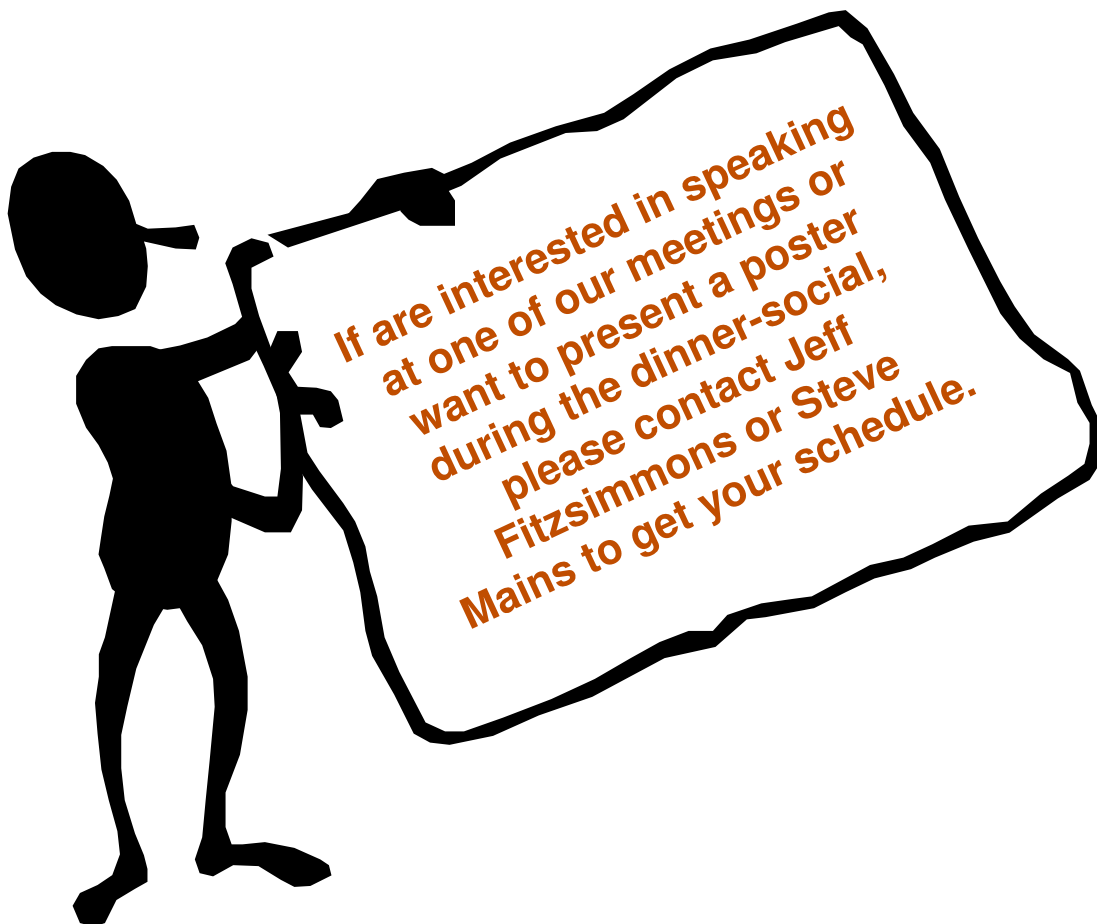
(Continued on page 2)

(Continued from page 1)

(up to 5 mm) of olivine, simply twinned plagioclase in a fine-grained groundmass. This flow is also characterized by the presence of numerous xenocrysts of quartz, often found with reaction rims. Geochemically each flow appears to be distinct from one another when plotted on the MgO-based variation diagrams. When the geochemical data are plotted against relative position in the individual flows, the Mud Springs basalt appears to be essentially geochemically homogeneous from top to base, confirming field-based observations that this flow represents a single flow unit. In contrast the basaltic andesite appears to be composed of three distinct flow units, again confirming field observations based on textural criteria. Comparison of the data presented with the Lunar Crater basalts indicate for some compositions, e.g. Al_2O_3 , the Lunar Crater samples span the range between the basalt and the basaltic andesite; for other compositions, e.g. Fe_2O_3 , the Lunar Crater basalts are quite distinct from any of the other lava flows sampled.

BIOGRAPHY:

Ali Snowden is from Morongo Valley, CA. She discovered geology her sophomore year of high school in Yucca Valley, CA when she was placed in the geology class offered. Through the classwork and field trips Ms. Snowden learned how stimulating it is to discover what the earth had to offer. After high school, Ali went to California State University, San Marcos and studied business for two years before realizing that geology was an option. At the urging of friends and family she transferred to California State University, San Bernardino where she is currently a senior working towards getting her bachelors of science in Geology with a minor in Environmental Science and plans to graduate in spring of 2015. Ms. Snowden has an interest in petroleum geology and volcanology. After graduation, she hopes to pursue a career in petroleum geology.



Upcoming Meetings/Events

Rock & Gem Shows—Various locations

Various rock and mineral shows will be throughout So. California. To find one near you, visit www.rockngem.com/showdates.asp

AEG—So. California Chapter Meeting



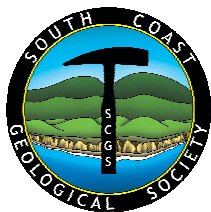
The meeting details for the next meeting for the AEG-Southern California Chapter is to be announced. For more info., visit the So. California Chapter at www.aegsc.org/calendar/.

AEG—Inland Empire Section



AEG—Inland Empire Section meeting details have not been announced. For more info., visit www.aegsc.org/chapters/inlandempire/index.php.

South Coast Geological Society Meeting



SCGS will be having their annual poster presentation. Bring your poster and show what you have been working on! The meeting will be on **November 10, 2014** at the DoubleTree Club Hotel in

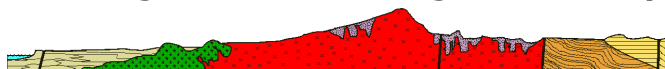
Santa Ana, CA. For more info., visit SCGS on Facebook and/or www.southcoastgeo.org.

Los Angeles Basin Geological Society



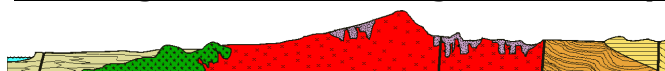
LABGS generally has their meetings on the fourth Thursday of each month. Visit their website for more info. (www.labgs.org).

San Diego Assoc. of Geologists Field Trip



Vic Camp will be presenting a talk on the "Mid-Miocene Flood-Basalt Volcanism in the Columbia River Province, Mantle Upwelling and Basin and Range Extension" on **Wednesday, November 19, 2014**. For more info, visit www.sandiegogeologists.org

San Diego Assoc. of Geologists Field Trip



SDAG's meetings are typically the third Wednesday of each month; however, due to the upcoming holidays, the December meeting date has not been confirmed. For more info, visit www.sandiegogeologists.org

GRAC's Southern California Branch

Groundwater Resources Association of California's Southern California Branch will be holding a Membership Drive and Open House on **November 14, 2014** at the Roscoe Moss Company in Los Angeles, CA. They are currently calling for abstracts. For more info, visit www.grac.org/branches/southerncalifornia.asp

IGS Meeting Schedule

December 4, 2014 (Thursday)

Taylor Water, PG, Earth Forensics, Inc.
A Career in Environmental Science—From 1985 to 2014

January 7, 2014 (Wednesday)

TBA

IGS MEETING LOCATION:

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

**2014 IGS OFFICERS****Co-President**

Greg Johnson, LADPW
 gjohnson@dpw.lacounty.gov
 626.458.1741

Co-President

Rob Johnson, AMEC
 rob.b.johnson@amec.com
 951.369.8060

Co-Vice President

Jeff Fitzsimmons, John R. Byerly, Inc.
 geojeff08@att.net
 909.877.1324

Co-Vice President

Debbie Kunath, Consulting Geologist
 Debbie_Kunath@ymail.com
 760.885.0232

Treasurer

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

Secretary

Dixie Lass, Retired
 Dixie.lass@att.net
 951.784.2168

Membership

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

Newsletter Editor

Shelby Barker, AECOM
 shelby.barker@aecom.com
 760.680.0389

Web Mistress

Marina West, Bighorn Desert View
 Water Agency
 wells.out.west@gmail.com
 760.910.3264

Web Master

Ernie Roumelis, AKW Geotechnical
 eroumelis@verizon.net
 951.265.9849