



AGS NEWSLETTER

ARIZONA GEOLOGICAL SOCIETY, JUNE 2007

DINNER MEETING, JUNE 5, 2007

Mary Poulton, Department Head and Professor, Department of Mining and Geological Engineering, University of Arizona

Pattern Recognition Technologies in the Minerals Sector (An overview of the “geo” applications of computational neural networks)

ABSTRACT – Dick Tracy uses them in his watch, Commander Data uses them for his brain, your virus checker uses them to look for mutant bit strings, your credit card company uses them to monitor for fraudulent purchases, and your car uses them to monitor performance. “Them” are computational neural networks and their uses have multiplied with the explosion of ecommerce and internet applications, and “smart” machines. They are also helping us find and process natural resources more effectively and improve the efficiency of environmental site characterization. So, what does credit card fraud have in common with natural resource exploration and extraction? Both require extensive use of pattern recognition and association. This talk will focus on the basics of constructing a neural network and how such technology has been applied to problems in environmental site characterization, in situ copper mining, seismic data processing, and more.

CALENDAR OF EVENTS:

[07-03-2007](#) Gabrielle Giffords, U.S. Representative, 8th District, Arizona – SUBJECT: TBA

[08-07-2007](#) Mike Timmons, New Mexico Bureau of Geology and Mineral Resources – SUBJECT: Late Precambrian Grand Canyon Supergroup, Intracratonic Basin Formation and Deformation During Rodinia Supercontinent Assembly and Breakup

[09-04-2007](#) Keith Long, U.S. Geological Survey – SUBJECT: Life-Cycle of a Technological System: The Inspiration Copper Mine, Miami, Arizona

[10-02-2007](#) No Meeting

[11-06-2007](#) Ralph Stegan, Phelps-Dodge – SUBJECT: Climax or Cerro Verde

[12-04-2007](#) Lee Allison, Arizona Geological Survey – SUBJECT: Intelligent Design and the Attack on Science

[01-06-2008](#) Eric Force, U.S. Geological Survey – SUBJECT: Chaco Canyon

[02-05-2008](#) Alyson Thibodeau, University of Arizona – SUBJECT: The Strange Case of the Earliest Extraction of Silver by European Colonists in the New World

[03-04-2008](#) Mark Barton, University of Arizona – SUBJECT: Iron Oxide Copper Gold Deposits: A Cordilleran Perspective

MEMBERSHIP RENEWAL:

To all members who have not yet renewed for the 2007 calendar year: Please renew by mid-June in order to continue receiving newsletters and the Membership Directory.

SCHEDULE: CASH BAR @ 6:00 PM
WITH RESERVATION: MEMBER = \$24.00,

DINNER @ 7:00 PM
GUEST = \$26.00,

TALK @ 8:00 PM
STUDENT = \$10.00

Without reservations you may not get dinner. If you do, an extra \$3.00 will be charged.

To make dinner reservations please call the **AGS answering machine** at (520) 663-5295 by 5:00 P.M. on the **Friday** before the meeting. Leave name, number of attendees, and whether a vegetarian or low-salt meal is required. This number can be used for field-trip reservations and leaving messages for Society officers. Please cancel your reservation if you find that you will be unable to attend.

TRIP REPORT - AGS SPRING FIELD TRIP 2007

We offer thanks to **Augusta Resource Corporation** for a fabulous trip last weekend to the Rosemont property. Twenty-one AGS members were treated to a great tour of the property led by **Bill Daffron, Mark Stevens, Scott Parks and Thornwell Rogers**. The morning started at the Hidden Valley ranch, located on the property, where we discussed the overall vision for the project and the geologic setting of the area. Many questions were answered and a couple of donuts were consumed. We moved on to the core sheds and viewed the core from Augusta's 95,000+ft of drilling. We were then treated to lunch at the Rosemont Ranch on the other side of the property, where we received a wonderful steak with all the trimmings. This sure beat the usual sandwich and apple field lunch! After lunch, we viewed sections of the deposit, discussed various aspects about the mapping and finished at the top of Gunsight Pass where we could get a view of the other deposits that lie close to the Rosemont deposit. It was a great day! Thanks again to Augusta Resource Corporation and all of the trip leaders. Extra copies of the field trip guide book for the Spring 2007 trip will be available at the dinner meetings for \$25. For mail order copies, please contact: **Rich Brown** at rbrown@clearcreekassociates.com.



Discussing the property and the area's geologic setting



Viewing the outcrops of the deposit within the proposed pit boundary



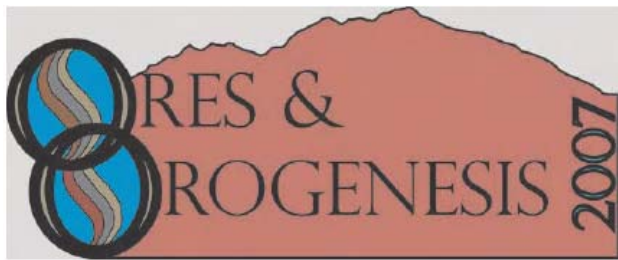
Enjoying lunch at the Rosemont ranch

MEMBER NEWS:

Welcome to new members: Diana French of Phelps Dodge Sierrita, Aaron Kelts of ASARCO, Graciela Mendoza of SRK Consulting, Doug Shakel, and William Stefanov of Jacobs Engineering.

Congratulations to Bob Cummings, who recently retired after nearly 40 years with ASARCO.

Current membership stands at 379.



UPDATE ON AGS SYMPOSIUM “ORES AND OROGENESIS: CIRCUM-PACIFIC TECTONICS, GEOLOGIC EVOLUTION, AND ORE DEPOSITS”

A symposium honoring the career of
William R. Dickinson

Hilton Tucson El Conquistador Golf & Tennis Resort,
24-30 September 2007

Co-sponsored by the USGS, SEG, SME, and GSN
www.agssymposium.org

The *Ores and Orogenesis* symposium is now only four months away. Register now to obtain the best registration rate, as the Early Registration period (\$405 for professionals, \$175 for students) ends on **June 1st**. We thank our corporate sponsors, whose donations make attendance more affordable for individuals. The latest corporate sponsor to provide support is **Anglo American Exploration**, at the Silver Level.

Registration prices include the SME-sponsored program on the Future of Mining and receipt of free continental breakfast, box lunch, and two coffee breaks per day. Committee member Lukas Zurcher is coordinating the process by which many student attendees will have their registration and travel subsidized by generous corporate donations.

Volunteers Barb Thomssen and Greta Orris of the Registration Committee and our meeting coordinators at the Scarritt Group are managing a complex series of registration options. Special registration categories are available for spouses and guests, as well as for those who only plan to attend the exhibits or Reunion Night. Registration also is open for the SEG Symposium on Supergene Processes, field trips, short courses, guest and spouse activities, three luncheons, a family dinner, and a reception and banquet for Bill Dickinson.

While registering, you can obtain a discounted price for the proceedings volume.

There are 19 field trips, which visit sites in Chile, Japan, Canada, Mexico, and the United States. Many thanks go to Bob Cummings and the rest of the field trip committee, Dick Lefebvre, Tom Simpson, Pete DeCelles, Steve Richard, and Tim Marsh. As trip leaders submit material, Claudia Stone and Esty Pape are editing the guidebooks and preparing them for printing. Advertisements for the field trip guidebooks and/or the Program with Abstracts can still be accepted if received by the end of May (contact Dean Kleinkopf, at 520- 670-5572 or dklnkpf@agssymposium.org).

Go to the web site www.agssymposium.org at any time to sign up for the Reunion Night by clicking on the “Reunion” page to specify which reunion functions you are likely to attend. Encourage your friends to do the same, as the organizations with the highest tallies receive their own (or the largest) rooms and no-host bars.

Don Earnest and Lance Bacon have led the symposium committee’s publicity activities. Advertisements for the *Ores and Orogenesis* symposium have been targeted at geology and mining publications as diverse as *CIM Bulletin*, *EOS*, *GSA Today*, *Mining Engineering*, and the *SEG Newsletter*. The final announcement and registration form were mailed to nearly 5000 people worldwide. We appreciate the work of 18 volunteers, including several from our co-sponsors at the Tucson Section of SME, who spent a recent Saturday assembling the mailing. We also thank volunteers who have assisted lately in soliciting exhibitors and advertisers for the Program with Abstracts Volume and Field Trip Guidebooks.

After the meeting, the Symposium Committee will be selling laptop computers, LCD projectors, and microphones that are being used for the meeting. Contact Greta Orris at greta@usgs.gov if you are potentially interested in purchasing this used equipment.



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For information on ordering AGS
publications, visit
www.arizonageologicalsoc.org.

AGS books and maps are also sold at the dinner
meeting and by the
Arizona Geological Survey.



WE DON'T WANT TO LOSE YOU! If your address label says "06-Renew", your membership has expired. This will be the last newsletter you will receive until your 2007 calendar year dues are renewed.

2007 AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

ARIZONA GEOLOGICAL SOCIETY, INC., P.O. Box 40952, Tucson, AZ 85717-0952

2004 Membership Application or Renewal (applications made after October 1 apply to the following year)

Dues (check box): 1 year: \$15; 2 years: \$30; 3 years: \$40; full-time student (student membership is free)

Name: _____

Position: _____

Company: _____

Mailing
Address: _____

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City

State

Zip

Work Phone: _____ Home Phone: _____

Fax Number: _____ Cell Phone: _____

E-Mail: _____

Please send the newsletter by E-mail only by regular mail only by E-mail AND regular mail

If registered geologist, indicate registration number and State (optional, will appear in directory): _____

Enclosed is a _____ tax-deductible contribution to the J. Harold Courtright Scholarship Fund.

Enclosed is a _____ tax-deductible contribution for the 2007 AGS Symposium.