



AGS NEWSLETTER

ARIZONA GEOLOGICAL SOCIETY, INC., TUCSON, ARIZONA

April 2009

APRIL 7, 2009 DINNER MEETING

Geochemical controls on the intensity and maturity of development of supergene enrichment profiles

William Chavez

New Mexico Tech, Socorro, New Mexico

ABSTRACT—Examples of supergene-related metals accumulations from sulfide and some non-sulfide protoliths indicate that a consistent series of parameters – geochemical and mechanical – are responsible for the maturity of supergene metals enrichment. The formation of a mature geochemical stratigraphy or regionally extensive metals mobility and accumulation may or may not produce economically attractive metals enhancement, despite local to regional availability of rock components during favorable weathering periods; this is because the geochemical and physical factors that determine supergene profile development must have acted within a restricted environment that ultimately permitted preservation of metals from post-enrichment redistribution.

2009 AGS EVENTS CALENDAR

- 5/5/09 **Michael A. McKibbin**, UC Riverside, *Hydrothermal Mineralization in the Salton Trough, Ancient and Modern*;
6/2/09 **Keith Long**, USGS, *Petro-realities: How Did Gas Prices Get So High?*
7/7/09 **Jon Spencer**, AZGS, Topic to be announced
8/4/09 **Mark Cocker**, USGS, *Impacts and their record in the Southeastern Coastal Plain of the United States*

AIPG Announces 2009 Spring Field Trip

Guided tour of the San Xavier Mine, April 11, 2009, 10:00 a.m. - 1:00 p.m.
RSVP to Erick Weiland at (520) 629-8288, or EWeiland@pirnie.com

AAPG and AGS Announce 2009 Pre-Convention Field Trip No. 4

The "Holey" Tour: Craters and Volcanoes for Planetary Geology
Dates: Friday, 5 June, 7:00 a.m. – Saturday, 6 June, 7:30 p.m. · RT from Phoenix
Price: Professionals \$240; Students \$120 (Note: Student slots sold out)
For information, go to www.aapg.org/denver/fieldtrips.cfm

New Mexico Geological Society Events

- 2009 Annual NMGS Spring Meeting: April 24, 2009
- Fall Field Conference, Chupadera Mesa: October 7-10, 2009

AGS Spring Field Trip

Saturday, 18 April 2009 — 10 am–2 pm
Tucson Mountain Chaos—Revisited

The Tucson Mountain Chaos was the second formation in the world to be given the formal name "chaos," by John Kinnison in 1958, and it remains controversial to this day. The formation is a megabreccia intermittently exposed along much of the length of the Tucson Mtns. It has been variously interpreted as a thrust breccia, landslide deposits, basal ignimbrite facies, and direct evidence of volcanic fluidization. Doug Shakel, AGS VP for Field Trips, will lead the trip.

Participants will visit two roadside arm-waving locations, through the exotic blocks of Chaos! limestone, andesites, schist, and weird green stuff! Have you ever seen an anticline **within** a dacite dike?

The trip will be a 2-hour casual walk, about 1 mile round trip, mostly in a sandy wash but with some rock scrambles. The maximum elevation change will be +/-20 feet. Wear hiking boots or high-top tennies; shorts are not a good idea if your legs don't like scratchy bushes. (Snakes are a possibility, weather permitting.)

Participants will meet and leave from the parking lot of Feliz Paseos County Park, 1600 N. Camino de Oeste (about 1/3 mile north of W. Speedway Blvd.). We will travel in AGS-provided vans to control parking. There will be a \$12 per person charge for the trip. Bring a picnic lunch; AGS will provide water and soft drinks. The trip is suitable for well-behaved and interested youngsters age 13 and up.

Register for the trip at the next AGS dinner meeting (April 7) or call the AGS phone line 663-5295 and leave your name and phone number.

April Dinner Meeting — Sheraton Four Points, 1900 E. Speedway Blvd., Tucson

RESERVATIONS ARE REQUIRED.

PLEASE CALL 520-663-5295 BEFORE FRIDAY, APRIL 3, 2009.

Cost: Members \$24, Guests \$27, Students \$10.

Cash Bar @ 6 pm

Dinner @ 7 pm

Talk @ 8 pm

AGS CAN NO LONGER GUARANTEE DINNER SEATING WITHOUT AN ADVANCED RESERVATION.



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ABOUT THE
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VISIT OUR WEBSITE
www.arizonageologicalsoc.org

AGS books and maps are sold at the monthly dinner meeting and by the Arizona Geological Survey. Visit the AZGS website www.azgs.state.az.us and click on Non-AZGS Publications



As always, please keep us up to date as you move, change jobs, or change your e-mail address.

2009 AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

Please mail check with membership form to: Arizona Geological Society, P.O. Box 40952, Tucson, AZ 85717. Dues (circle one): 1 year: \$20; 2 years: \$35; 3 years: \$50. (Full-time students receive free membership. The newsletter is by e-mail only, and a membership application form must be returned to AGS annually to remain on the membership list.)



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

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