

## SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegogeologists.org

#### SDAG MEETING ANNOUNCEMENT

## Wednesday, June 14, 2006

LANDSLIDE GEOLOGY OF SAN ONOFRE STATE PARK, CALIFORNIA

(Joint Meeting with South Coast Geological Society)

presented by

**Dr. John H. Foster**California State University, Fullerton

Where: El Adobe Restaurant of Capistrano

31891 Camino Capistrano

San Juan Capistrano, CA 92675

949-493-1163

When: 6:00 pm – Social Hour

7:00 pm – Dinner 8:00 pm – Program



Directions: Take I-5 north to Exit #81 toward CAMINO CAPISTRANO. Turn Left on VALLE

RD. Turn Left on SAN JUAN CREEK RD. Turn Right on CAMINO CAPISTRANO.

**Dinner:** Chips and salsa for starters, mixed green salad with ranch or Italian dressing

Entree: chicken breast w/ champagne-mushroom sauce, rice pilaf and steamed vegetables. Dessert: scoop of vanilla ice cream, caramel syrup and whipped

cream. Coffee, tea or soft drink.

Cost: \$25.00 per member/guests, \$15 per student. Add \$5.00 if you make no

reservation.

**Reservations:** Make your reservation online at <a href="https://www.sandiegogeologists.org">www.sandiegogeologists.org</a> or call the SDAG Reservation Hotline at (619) 255-8380, no later than 5:00 p.m. <a href="https://www.sandiegogeologists.org">Monday</a>, June 12<sup>th</sup>.

RESERVATIONS CANNOT BE ACCEPTED AFTER <u>Monday AT 5 PM</u>.

IF YOU DO NOT MAKE A RESERVATION, WE CANNOT GUARANTEE YOU A MEAL.

## 2006 EXECUTIVE COMMITTEE

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#### BIOGRAPHICAL SUMMARY: DR. JOHN H. FOSTER

Dr. Foster earned his Ph.D. in Geology at the University of California, Riverside in 1980 on work investigating the sedimentary dynamics of plate interaction at Cajon Pass, California. He worked for 10 years in the Geotechnical and Environmental Geologic field with companies in Southern California studying and evaluating active faults, landslides, foundation conditions for large developments and public works as well as studies of site contamination including remediation and clean up. In 1989, he joined the faculty of Cal State Fullerton as an Engineering Geologist and taught courses in field geology and engineering geology and has overseen detailed research activities of over 35 senior thesis and master's thesis students.

He has conducted research and published articles on groundwater studies in the Santa Clara and San Gabriel Watersheds. Dr. Foster and his students mapped the Quaternary geology for the seismic hazards maps of Seal Beach, Los Alamitos and Whittier in Los Angeles County. He has conducted beach nourishment studies and studies of the Holocene geology in San Elijo Lagoon in northern San Diego County. Currently, he is consulting on a legal matter involving the stability of sections of the Ancient Portuguese Bend Landslide Mass and has on going investigations at Pt. Fermin and is documenting and analyzing recent bluff failures in San Onofre State Park. He is currently Professor of Engineering Geology in the Department of Geological Sciences and Co-Principal Investigator of an on-going grant with Mojave Water Agency to assess the water recharge and groundwater geology of Mojave Desert Basins.

## LANDSLIDE GEOLOGY IN SAN ONOFRE STATE PARK, CA

The Monterey Formation crops out in the bluffs southeast of the Cristianitos Fault in San Onofre State Park, Southern California. The Park lies along the marine terrace bluffs between Interstate 5 and the Pacific Ocean and is an area of active landsliding. Echo Arch Landslide is clearly identifiable as two large concave alcoves that notch into the bluffs due southeast of the San Onofre Nuclear Generating Station which sits on unaffected long straight bluffs of terrace deposits covering San Mateo Sandstone.

Movement is indicated by cracks and block falls that result from oceanward movement in a block glide. The geology of the bluffs is light gray Monterey Shale (well weathered) capped by 20-30 meters of terrace deposits composed of thin marine gravel and sand with alluvial sand and minor gravel above. The landslide base is controlled by sheared soft weathered shale that is inclined oceanward at about 5 degrees but has an obliquely oceanward flattening bowl shape due to the geologic structures. The northwest boundary is controlled by the Cristianitos fault and the southeast boundary is structurally controlled by a northwest plunging anticline. In reality, however, the original landslide mass has long been consumed by the ocean and what remains and is still moving is a hummocky area of weathered Monterey Shale covered by headwall debris composed mostly of the terrace deposits. The headwall is slowly encroaching on the park road as topples and falls occur due to movement of the debris accumulating on the slide surface.

Southeastward, other landslides are occurring as coastal erosion erodes the forward failure blocks resulting in secondary large rotational failures. This process is well demonstrated annually in the bluffs and on-going failures which occur in a series of newer landslides. These slide blocks are initiated by heavy rainfall but more specifically they occur when canyon erosion cuts through to expose the sliding surface at a critical point inward from the coastal zone, creating a free surface in the sliding direction.

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## 2006 SDAG MEETING SCHEDULE - Mark your Calendars!

Meetings are usually on the 3<sup>rd</sup> Wednesday of the month but may change to accommodate speaker and meeting place schedules. Check here for updates!

July	Glenn Foss – Early Days of Ocean Exploration
August	Dee Trent – Randsburg Mining District
September	Picnic???

## PRESIDENT'S CORNER:

**May Meeting** – Another crowd-pleaser by Montek the Terrible! Our visiting budding scientists, Loic and Katherine, were so impressed that we will probably be seeing more of them.

**Hitting the road (or rails) in June** - Joint meeting with South Coast Geological Society - The speaker: John Foster, the subject: Echo Arch Landslide (San Onofre State Beach), which Carole Ziegler and I examined on our recent Southwestern College field trip. In addition to John's more formal bio above, I gleaned this from the CSUF website:

"I live in Irvine with my wife Candace and our two boys Cameron (10) and Brian (8). We split our time together between the beach, Disneyland-ESPN Zone is my favorite cause I can drink beer there, Medieval Times-one of my favorites cause I can drink beer there, and golfing with the neighbors-you guessed it, another favorite cause I can drink beer there."

He sounds like he fits right in...

**July and August** - For the July meeting, I have gotten our own Glenn Foss to reminisce about his adventures in the early days of ocean exploration aboard various ships. In August, Dee Trent will talk about the Randsburg Mining District, the subject of his recent book which SDAG helped publish.

September - Break out the picnic baskets?

## ANNOUNCEMENTS:

MINES & GEOLOGY OF THE RANDSBURG AREA : An Historical Gem of the Mojave Desert

Published in 2006 by the San Diego Association of Geologists (SDAG)

Distributed by Sunbelt Publications www.sunbeltbooks.com

The **western Mojave Desert region** of Randsburg, Red Mountain, Johannesburg, and Atolia takes its rightful place in the storied history of major Old West mining camps in this volume by geology professor Dee Trent. Unlike the single boom-and-bust cycle experienced by most mining areas in the West, Randsburg and environs experienced five mining booms from 1893 into the 21<sup>st</sup> century with riches from the earth that included gold, silver, and tungsten. Abundant historic maps and photos help readers and high desert adventurers understand the science and technology of a fascinating era in yet another contribution to the story of the land and its people.

**Dee D. "Doc" Trent** is a geologist with degrees from the University of Southern California and the University of Arizona. He worked as an oil company geologist in California, Utah, Arizona, and Alaska before becoming a college professor. Teaching, research, and consulting have been his main thrust in recent years; this leading to publications on glaciers, mining, structural geology, and tectonics. He has publications on mines and mine remediation in California, Alaska, Nevada, and Montana.

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# FIELD TRIP ANNOUNCEMENT Southern Anza-Borrego Desert and Coyote Mountains, California

October 28 and 29, 2006

The geology of Anza-Borrego Desert State Park and the surrounding area attracts geologists from around the world. We will explore the faulting and structural complexity of the northwestern Coyote Mountains as we descend Canyon Sin Nombre from Carrizo Badlands Overlook. We'll hike about a mile up a little known side canyon to see stratigraphic evidence of coincidental volcanic activity during the deposition of the Split Mountain formation, structural evidence of the Coyote Mountains uplift, and subsequent Mio-Pliocene basin evolution. A catered dinner and hot springs await us in the evening at Agua Caliente County Park, where we'll camp. On Sunday, we'll explore the lava beds of Volcanic Hills. After lunch, hardy souls may take an optional 5-mile round-trip hike to ponder fossilized "flamingo nests" and the other three mysteries of The Domelands.

Meals will be provided. Carpooling and 4WD are strongly recommended.

For more information, please call Dave Bloom at 619-571-3470

The **Inland Geological Society** and **Inland Empire of AEEG:** Official Notice of 2-Day AEG Short Course 23/24-June 2006 "Rock Slope Stability Investigation and Analysis for Geologists" in Temecula, CA. See their website for more details, www.inlandgeo.org and www.aegsc.org/chapters/inlandempire

From the **Anza-Borrego Desert Institute**: Join us on this one-of-a kind 5-day field expedition exploring the ancient story of the Colorado River's impact on the southern Colorado Plateau and surrounding region with popular geologist/author/former ranger Paul Remeika. Follow dinosaur tracks, see the stratigraphic wonders of the Grand Staircase, and relive the trip of John Wesley Powell for a day of white-water rafting on the mighty Colorado River. See their website at <a href="www.theabf.org">www.theabf.org</a> for more details. September 12-16, 2006.

From the San Diego Chapter of AEEG: June Meeting: June 13, 2006. Social time starts at 5:30 PM, talk at 6:30 pm. June's meeting features a presentation by Dr. Thomas Rockwell, of San Diego State University. Dr. Rockwell will present an overview of the neotectonics of the San Diego region. It will include work relative to the Agua Blanca Fault in northern Baja California and how there are ties northward along the coastal system of faults into Los Angeles basin. San Diego sits near the middle. The Rose Canyon and related faults will be discussed in some detail, including the likely size of the past large earthquakes that have struck the San Diego City area. The talk will conclude with a brief discussion on long-term patterns of strain release and their implications to near-term seismic hazard assessment. The meeting will be at the offices of Ninyo & Moore, 5710 Ruffin Road, San Diego, CA. Please contact Ashley Galland (agalland@ninyoandmoore.com) to RSVP. Dinner is buffet-style. Cost is \$20.

The **2007 AEG National Convention** will be held in Los Angeles. The 50th Anniversary of the founding of the AEG will be celebrated at this convention. The committee organizing that convention has made quite a bit of progress. As of today we are looking at 25 half-day technical sessions and/or symposia. Different ideas for symposia include: Regulatory Reviews, Paleoseismology, Visioning the Future, An unspecified environmental geology subject, Levees, Tunnels, Landslide issues, Coastal erosion issues, An unspecified groundwater subject. FYI, the 2007 convention is scheduled for September 24 through 28, 2007. It will be held at the Sheraton Universal Hotel (near Universal Studios).

The national **Association of Earth Science Editors (AESE**), a GSA and AGI affiliate organization, is holding its 40th annual meeting in San Diego at the Hacienda Hotel in Old Town November 8-11, 2006. The mission of AESE is to enhance the communication of earth science information and education and to strengthen the profession of earth science editing. Membership is \$35/year and offers a Web page www.aese.org <a href="https://www.aese.org">www.aese.org</a> to members who freelance within the profession. Please contact Lowell Lindsay or Phil Farquharson for further information.

Sue Tanges and Phil Farquharson are organizing a possible SDAG Grand Canyon rafting adventure (8-day) early June 2007. Total cost: \$2200, 10% deposit by September. More details to come.

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The **Inland Geological Society** and **Inland Empire of AEG** have announced their Wednesday, June 21 meeting. See their website for more details, <a href="https://www.inlandgeo.org">www.inlandgeo.org</a> and <a href="https://www.inlandgeo.org">aegsc.org/chapters/inlandempire</a>

From the **State Mining and Geology Board**: The June 8 meeting Public Notice is now posted on our web site: <a href="https://www.conservation.ca.gov/smgb">www.conservation.ca.gov/smgb</a>

#### 2006 CORPORATE SPONSORS - THANK YOU!

Corporate sponsors provide a significant portion of SDAG's operating and scholarship budget. In addition to monthly recognition for your contribution, you are entitled to a free Internet "link" from SDAG's Website. We also list Corporate Sponsors in our annual SDAG Field Trip Volume. *Please consider SDAG sponsorship in 2006!* 

A special thank you to **Ninyo & Moore** for sponsoring the preparation, duplication, and mailing of the newsletter for 2006 and 2007!

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## JOB OPENINGS!

Advantage Environmental Consultants (AEC) is seeking entry to senior-level environmental scientists/ geologists/engineers. Entry level candidates should have a BA, BS or MS in physical sciences or engineering and a strong desire to learn the technical aspects of the environmental consulting business and basic project management duties. Mid to senior-level candidates should have prior consulting experience with soil and groundwater investigation, Phase I ESAs, risk assessment, remediation and/or industrial hygiene related services. AEC offers competitive compensation and 100% paid employee health coverage. Please mail resume to 810 Los Vallecitos Boulevard., Suite 210, San Marcos, CA 92069.

**Petra Geotechnical** is currently seeking experienced geotechnical engineers, geologists, environmental scientists and soils technicians in our Costa Mesa, Santa Clarita, Murrieta and San Diego offices. We offer competitive salaries and excellent benefits. Contact Linda Becker, Human Resources Manager, at 714/549-8921 or submit your resume by email to <a href="mailto:lbecker@petra-inc.com">lbecker@petra-inc.com</a>

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Hargis + Associates, Inc., a San Diego based consulting firm specializing in hydrogeology and engineering, and SDAG Corporate Sponsor currently has opportunities in our San Diego, California and Mesa Ari office. We are currently looking to fill the following positions:

<u>Hydrogeologist/GIS Environmental Scientist</u>: Candidate would have a B.S. Degree in Geology or related field, and expertise in ArcView GIS and related applications. Ideal candidate would have experience with sampling, well installation, aquifer test analysis, and/or groundwater modeling. Position will be based in Mesa, Arizona, and may require some travel and field work. OSHA 40-hour training preferred. Entry level candidates with a strong GIS background will be considered.

<u>Project Hydrogeologist</u>: Candidate would have a B.S. Degree in Geology, and 5 to 7 years relevant experience, including experience with sampling, well installation, work plan and report preparation, project management, cost estimating and scheduling. California Professional Geologist (PG), or ability to obtain within one year preferred. Masters degree or computer groundwater modeling experience is a plus. Candidate should possess strong organizational, writing and presentation skills. Position will be based in San Diego, and will require some travel and field work. OSHA 40-hour training required.

Hargis + Associates offer competitive salaries and benefits, and a challenging work atmosphere. Hargis + Associates in an Equal Opportunity Employer. To learn more about Hargis + Associates, please visit our website at: www.hargis.com.

No phone calls please. Qualified candidates should send resumes, along with a cover letter summarizing experience and salary requirements to: Hargis + Associates, Inc., Attention: Phil Rosenberg, 2365 Northside Drive, Suite C-100, San Diego, CA 92108

**Rincon Consultants, Inc.** is an environmental sciences, planning, and engineering consulting firm with offices in Ventura, San Luis Obispo, and Carlsbad, California. The firm, a leader in environmental impact assessment, planning, biological resources, and soil assessment and remediation, seeks **Mid-Level** and **Senior Level Environmental Scientists** to work in the **Carlsbad** office.

#### **Mid-Level Requirements:**

- Bachelor's degree in Geology, Biology, Environmental Science, Environmental Engineering, or related field (advanced degrees welcomed).
- 3-6 years experience in Phase I ESAs and soil/groundwater assessment/remediation.
- Excellent verbal and written communication skills.
- Field capabilities including logging borings, collecting soil and groundwater samples, and mapping and collecting soil samples for large remediation projects.
- OSHA health and safety training for hazardous waste sites.
- Well-organized, analytical, hard-worker, sense of humor, and good team player/leader.

#### **Senior Level Requirements:**

- In addition to fulfilling the Mid-Level Requirements above:
- Manage projects and personnel: prepare proposals, job assignments and schedules, track budgets, coordinate
  personnel and subcontractors, attend meetings, interact with clients and agencies, enforce use of guidelines and
  proper permits, troubleshoot problems, etc.
- Professional registration preferred.

E-mail your Microsoft Word cover letter and resume to Julie Marshall at <u>imarshall@rinconconsultants.com</u>

**TerraPacific Consultants, Inc.** is a San Diego based geotechnical consulting firm working on projects throughout the southwest. We concentrate on forensic engineering, evaluations for new commercial/industrial/custom residential construction, as well as, oversight during foundation repairs. We are seeking motivated engineers and geologists who are interested in finding solutions to challenging geotechnical problems. Field work and out of town travel will be required on a regular basis throughout California, Nevada, New Mexico, Arizona, and Hawaii. All positions demand an organized self-starter with "hands-on" management ability. Please visit our web site at www.terrapac.net.

**Senior Geotechnical Engineer** Position responsibilities include project management, collecting field data, analysis, report writing, and client communication. Oversight of construction inspections will also be required. Qualified candidates must be a licensed G.E., have a minimum of 8 years experience and good communication skills. At least 2 years experience in geotechnical forensic investigations preferred. Experience in testifying a plus.

**Project Geologist/Geotechnical Engineer** Position responsibilities include project management, collecting field data, analysis, report writing, and client communication. Oversight of construction inspections will also be required. Qualified candidates must be a licensed PE (GE is a plus), PG or CEG, have a minimum of 5 years experience and good communication skills.

**Staff Geologist/Engineer** We are looking for an honest, hard working, technically minded graduate to perform subsurface investigations, collect field data, perform geotechnical analysis, and write reports. Construction inspections will also be required. Qualified candidates should possess good communication skills. Some experience in geotechnical investigations is preferred but recent graduates will be considered.

The right, qualified, independent and hard-working individual will be offered an excellent salary (commensurate with their experience), profit sharing/401K plan; company sponsored insurance program, and bonuses. If you are interested, please submit a resume and cover letter to: TerraPacific Consultants, Inc., 12245 World Trade Drive, Suite G, San Diego, CA 92128; or by fax to 858-521-1199; or by e-mail to jimg@terrapac.net.

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