

**ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS  
Southern California Section**

*"Connecting Professionals, Practice, and the Public."*

***NEWSLETTER – May 2008***

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Newsletter Editor – Steve Varnell, [svarnell@fugro.com](mailto:svarnell@fugro.com), 805-650-7000

**Meeting Date: \*\*\*Tuesday, May 13th\*\*\***

**\*\*\* Location:** **Victorio's Ristorante:** 10901 Victory Blvd. North Hollywood, CA 91606.  
Map is on page 4.

**Time:** 6:00 p.m.-Social Hour; 7:00 p.m.-Dinner; 7:45 p.m.-Presentation

**Cost:** \$30 per person with reservations, \$35 without reservations, \$15 with a valid Student ID. House beverages are included in the \$30 fee. No charge for parking.

**Reservations:** Please e-mail Peter Thams at [thams.peter@gmail.com](mailto:thams.peter@gmail.com)

**Speakers:** **Eldon Gath, Tom Rockwell, and Tania Gonzalez, Earth Consultants International**

**Topic:** **Tectonic Geomorphic and Paleoseismic Investigations for the Panama Canal Expansion Project**

**Abstract:**

Opened for ship traffic on August 14, 1914, the Panama Canal is one of the great wonders of the modern Era and allows for ship traffic between the Pacific and Atlantic shipping lanes without having to make the arduous trip around the southern end of South America. However, the size of trans-ocean ships has increased tremendously, and many do not fit through the existing locks. Consequently, the Autoridad del Canal de Panamá (Panama Canal Authority, or ACP) has begun the process of modernizing and expanding the Canal to accommodate the increased transit demands and larger sizes of the newest post-Panamamax ships. As part of that process, we have been studying the faults of Panamá for almost four years, under contract to the ACP. Prior to our work, no active faults were recognized in Central Panama, although excavations for the canal in the past have exposed numerous faults and plenty of other evidence of crustal deformation. The results of our new work have caused a total paradigm shift in the perception of seismic hazard for one of the most important commercial structures in the world.

Our studies began with an effort to map tectonic geomorphic features along the faults that can be obviously seen from DEMs and airborne imagery. This was immediately followed by a field recon phase for the several hundred square kilometers centered on the Panama Canal, much of it covered in dense rain forest. Based on their geomorphic expression alone, it was clear that many of these faults had Holocene activity, and probably with non-trivial rates.

Following the geomorphic assessment, we completed paleoseismic investigations for the Gatún, Limón, and Pedro Miguel faults, including 3-dimensional trenching to resolve slip in the most recent events. Based on these trenching studies, we have developed slip rates, recurrence intervals, slip per event, and the timing and displacement for the last two-three events for all three faults. We also have trenched the Miraflores and Agua Dulce faults to determine their surface rupture threat to the Canal. All of these results are incorporated into the seismic design calculations for the new Canal Expansion structures, and for the retrofit of the existing structures. Our presentation will cover the gamut of studies that we have conducted for the Canal Expansion, will touch on the challenges of working in a place that receives three meters of rainfall per year, as well as provide an overview of the expansion project itself.

**Speakers:**

**Eldon Gath** - President of Earth Consultants International - BS University of Minnesota, PhD candidate at UC Irvine, with almost 30 years of experience in engineering geology in southern California and increasingly, over the last 10 years, international experience. He was President of the Association of Engineering Geologists in 1997-98, was active in the Southern California Earthquake Center for many years, and has served on numerous professional practice committees at local, state, and national levels. For the past several years, he has been trying to complete a PhD dissertation on the neotectonic evolution of The OC, while still commuting to Panama every couple of months. For the Panama work, he was the project manager for all nine of ECI's contracts with the Autoridad del Canal de Panamá. He is identified as the lead geologist on CH2M Hill's team for the Program Management of the Panama Canal Expansion Project.

**Tom Rockwell**, PhD, is a Senior Partner of Earth Consultants International and has been a Professor at San Diego State University for the past 25 years. He served as the head geologist for the Southern California Earthquake Center for 8 years, has served on numerous State and Federal funding panels, and has published over 400 papers, journals articles, book chapters, and guidebooks over the past 28 years. Rockwell is an expert on the tectonics and earthquake hazards of southern California and Baja California, has conducted extensive trenching programs to date earthquakes on faults in the western U.S., Middle East and Asia, and routinely uses soil stratigraphy and geomorphology combined with various radiometric dating techniques to assess rates of fault activity, determine recency of faulting, and date past earthquakes. His research focuses on understanding earthquake occurrence in time and space. Current projects include the characterization of fault systems behavior by understanding

patterns of past recurrence of large earthquakes on faults in southern California, northern Mexico, Argentina, Portugal, Mongolia, India, Turkey, Israel, and of course, Panama. This work includes resolving information on slip per event, as it relates to understanding the controls on segmentation and rupture termination. He has also worked extensively on the affects of tectonism on the landscape, and the use of geomorphology to constrain rates and timing of tectonic events. Included in this latter aspect is detailed mapping and dating of marine terraces along the west coast of North America and assessment of paleosea level during the late Quaternary. In Panama he was the technical lead for all of the trenching studies and participated in all of the seismic hazard workshops.

**Tania Gonzalez**, Senior Partner of Earth Consultants International and a past Section Chair of the AEG's Southern California Section, received her BS and MS degrees in Engineering Geology, with a Minor in Archaeology, from Texas A&M University. She has almost 20 years of experience in geologic investigations, especially fault studies, here in southern California, in addition to Mexico, Turkey, and Central America. She has experience in absolute and relative dating techniques, including radiometric, thermoluminescence, and paleomagnetic sampling and interpretation, in addition to the use of soil development as a dating tool. Ms. Gonzalez has also managed and prepared dozens of municipal planning studies with emphasis on seismic and geological hazard mitigation. In Panama, she was the field manager for most of the geologic/geomorphic mapping and paleoseismic trenching studies.

<b>Chair Column</b>
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Roz Munro

We had a great meeting in Van Nuys last month. It was well attended despite the cost, in no small part to a little "encouragement" from Hugh. Fortunately we received a few suggestions for new locations. This month we're going to try the one from Joe Cota. Victorio's may regret including beverages in the dinner price for this crowd. It will be a great presentation and I look forward to seeing everyone there.

I will be attending the mid-year Board of Directors meeting May 16-18 in Portland. Please let me know if you have any thoughts or concerns you would like me to address with the Executive Council or Board. I'll provide a report next month on the outcome.

### Reminders:

The next **Board for Geologists and Geophysicists meeting** will be held **Friday May 9, 2008** at the California Regional Water Quality Control Board, 9174 Sky Park Court, **San Diego**, CA 92123. The agenda is posted on the board's web site. Go to <http://www.geology.ca.gov/> for more information. This is a great opportunity for those of you in southern Southern California to meet the board members and see the process in action. The board is interested in your thoughts and feedback and welcomes your attendance and participation.

The Shlemon Conference, "The Geological Assessment of Naturally Occurring Hazardous Substances" will be held June 4-6 in Folsom, CA. Go to [www.aegweb.org](http://www.aegweb.org) for more information.

The 2008 AEG Annual Meeting will be held September 15-20 in New Orleans, LA. Abstracts deadline is May 1. Go to [www.aegweb.org](http://www.aegweb.org) for more information.

**Announcement**

Charles Nestle

The 2008 County of Los Angeles Building Code (Title 26) was expected to be available in technical book stores around the end of March. The new code may also be accessed at either of the following links: <http://www.bpcnet.com/codes/lacounty/> or <http://ordlink.com/codes/lacounty/index.htm>. Click on: "Title 26. Building Code."

**Public Service Announcement**

Charles Nestle

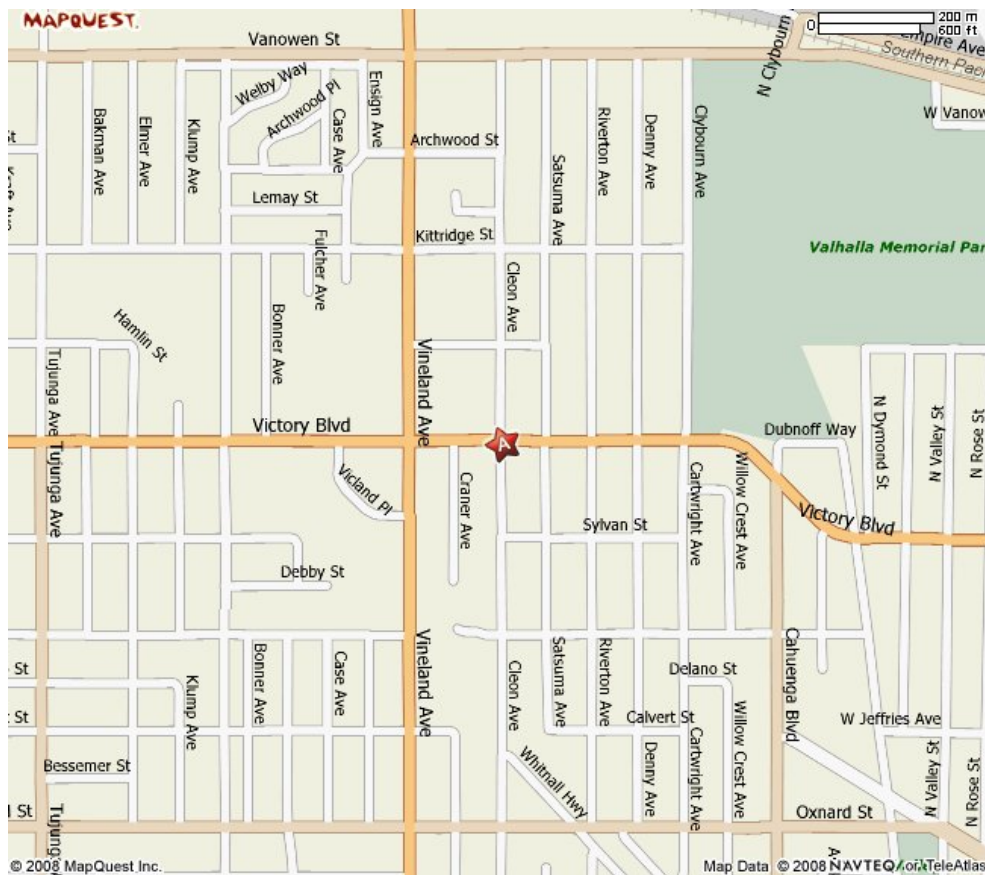
**ZIP-A-DIPs Are Still Available!**

How many of you have given up trying to find replacement for your faded and warped Zip-A-Dips? Zip-A-Dips are available from Don and Jeannine Lamar, who have lived in retirement in Reno for the past six years. Jeannine said that they don't plan on having any more made when they exhaust the present supply of Zip-A-Dips. She said, "It sure is nice to know that some geologists are still using ZADs."

Order your Zip-A-Dip by phone: (775) 322-5344. The price for 1 is \$4.00, or order 2-10 for \$3.50 ea., 11-49 for 3.00 ea., and 50+ for \$2.50 ea.

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**\*\*\*\*\* Map to Victorio's Ristorante:**





## SHLEMON CONFERENCE SCHEDULED

### The Geological Assessment of Naturally Occurring Hazardous Substances

June 4 – 6, 2008

Folsom, California, USA

Conference Organizers:

**David W. Bieber**, Geocon Consultants,  
Inc, Rancho Cordova, CA,  
bieber@geoconinc.com

**David Sederquist**, Youngdahl Consulting  
Group, Inc., El Dorado Hills, CA,  
dcs@youngdahl.net

**Jim Brake**, Geocon Consultants, Inc,  
Rancho Cordova, CA,  
brake@geoconinc.com

Shlemon Conferences are sponsored by the AEG Foundation and the Association of Environmental & Engineering Geologists, and follow procedures typical of the Geological Society of America *Penrose Conferences* and the American Geophysical Union *Chapman Conferences*. The conferences are intended to promote and disseminate practice and research results, and to foster the improvement and understanding of applied geology.

The third Shlemon Conference will include keynote presentations by invited experts, volunteered poster presentations by conference attendees, a field excursion, and ample time for informal conversations.

Naturally occurring hazardous geologic substances include arsenic, mercury, uranium and other heavy metals, radon, and asbestos. The

conference will focus on the geologic assessment of these substances including the strategies for sampling and problems with the current analytical methods. However, we will also discuss the interactions between the geologic community and the risk assessment and toxicology communities with regards to the collection of data and inter-professional communication. The conference will emphasize those principles common to the investigation of naturally occurring hazardous geologic substances in general, using the substances listed as examples. Topics covered will also include those characteristics and concerns unique to the assessment of naturally occurring particulates, heavy metals, and gases. Examples will be presented from throughout the United States, as well as from other countries. Key-note presenters have been selected based on topic and diversity of experience, and additional presenters will be selected to enhance the conference content.

The field trip held in conjunction with the conference will visit the Motherlode region of the central Sierras in El Dorado and Amador Counties to view and discuss exposures of asbestos-bearing rock; view areas where elevated metals including arsenic, nickel and chromium occur, including the site of a United States Environmental Protection Agency arsenic cleanup action; and visit an area where naturally occurring radon gas associated with regional granitic rocks occur. Sites visited will include areas of historic mining where we will discuss the role of mining in providing a preferential exposure pathway.

Two days of technical sessions are planned. Each session will include invited keynote speakers who will be followed by brief oral abstracts and poster presentations contributed by conference participants. The one-day field excursion will be conducted on the second day of the conference.

**Small specialty conferences such as this one depend on volunteered presentations and active participants!**

**All attendees are strongly encouraged to contribute to the program by offering a poster presentation.**

Conference attendance will be limited to 75 participants. The registration fee of \$325 U.S. will cover technical sessions on Wednesday, June 4, and Friday, June 6, the field trip on Thursday, June 5, lunches on Wednesday and Thursday, and a dinner on Thursday. Participants will be responsible for transportation to Folsom, California; transportation from the airport to the hotel; and lodging costs. The conference hotel, Lake Natoma Inn, is in the historic mining town of Folsom, California, located adjacent to the foothills of the Sierra Nevada, and is within convenient walking distance of historic downtown Folsom.

#### **Registration Payment Due:**

April 1, 2008 (form coming soon)

**For detailed information** and the application form, visit [www.aegweb.org](http://www.aegweb.org) or contact the conference organizers by phone or e-mail.



# AEG•2008

## *Laissez Les Bon Temps Rouler* (Let the Good Times Roll!)

### New Orleans, Louisiana

September 15-20, 2008 ~ JW Marriott Hotel

**CALL FOR PAPERS**  
**ABSTRACTS DEADLINE:**  
**MAY 1, 2008**  
 PLEASE SEND TO JULIE KEATON  
 E-mail: [aegjuliek@aol.com](mailto:aegjuliek@aol.com)  
 Or see [www.aegweb.org](http://www.aegweb.org)

**Technical Program**

- Coastal/Floodplain Processes
- Construction Geology
- Dams/Levees
- Environmental Geology
- Forensic Geology
- Geophysics
- Geotechnics
- Groundwater
- Landslides/Slope Stability
- Professional Practice
- Remote Sensing/GIS
- Rock/Soil Mechanics
- Seismic Hazard
- Site Characterization
- Subsidence
- Tunneling

**Symposia**

- Hurricane Katrina and Mechanism of Failure
- New Madrid Earthquakes
- Coastal Geology and Coastal Hazards
- Environmental Remediation
- Coastal Protection – New Orleans
- Tunneling

**Guest Tours**

- Good Morning New Orleans Walking Tour
- River Road Journey – Antebellum Life
- Garden District Tour with Lunch at Commander’s Palace
- Honey Island Swamp – Eco Tour

**Field Trips**

- Slope Stability – Mississippi River Bluffs
- Hurricane Katrina Devastation Area
- Avery Island Salt Dome & Tabasco Tour
- Civil War Military Geology – Vicksburg Campaign
- Coastal Geology – Barrier Islands
- NASA – Stennis Space Center

**Short Courses**

- GIS
- OSHA 8-hour HAZWOPR Refresher
- Technical Photography

**Special Event**

Mardi Gras Parade and Reception through the French Quarter – with the procession led by a traditional N’awlins jazz group.

**COMMITTEE CHAIRS**

*General Chairs:* James May ([jmay1942@bellsouth.net](mailto:jmay1942@bellsouth.net))  
 Darrel Schmitz ([schmitz@ra.msstate.edu](mailto:schmitz@ra.msstate.edu))  
*Field Trips:* Michael J. Wright ([mwright@mdot.state.ms.us](mailto:mwright@mdot.state.ms.us))  
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*Moderators / Keynote Speaker:*  
 Mike Seal ([michael.c.seal@usace.army.mil](mailto:michael.c.seal@usace.army.mil))  
*Outstanding Environmental & Engineering Geologic Project:*  
 Evelyn Villanueva ([Evelyn.Villanueva@erdc.usace.army.mil](mailto:Evelyn.Villanueva@erdc.usace.army.mil))  
*Publicity:* Jay Ferris ([jferris@earthcon.net](mailto:jferris@earthcon.net))

*Short Courses:* Chris Saucier ([csaucier@cee.msstate.edu](mailto:csaucier@cee.msstate.edu))  
*Special Event:* Donna Schmitz ([donnas@ext.msstate.edu](mailto:donnas@ext.msstate.edu))  
*Sponsors:* Ken Ruckstuhl ([kruckstuhl@env-mgt.com](mailto:kruckstuhl@env-mgt.com))  
*Student Coordination:* Greg Easson ([geasson@olemiss.edu](mailto:geasson@olemiss.edu))  
*Symposia:*  
 Wayne Ispording ([wisphord@jaguar1.usouthal.edu](mailto:wisphord@jaguar1.usouthal.edu))  
*Technical Program:*  
 Dave Patrick ([david\\_patrick@comcast.net](mailto:david_patrick@comcast.net))  
 Don Banks, Vice Chair, [donbanks@canufly.net](mailto:donbanks@canufly.net)  
*Meetings Manager / Registration and Exhibitors:*  
 Julie C. Keaton ([aegjuliek@aol.com](mailto:aegjuliek@aol.com))

## Chapter Meetings

**Inland Empire:**

For the latest information and updates, please visit <http://www.aegsc.org/chapters/inlandempire/>

**Central Coast:**

Monthly meetings will take place on the last Wednesday of every month at Rusty's Pizza in Goleta. Social hour begins at 6 pm, the meeting begins at 7pm.

For the latest information and updates, please visit <http://www.aegsc.org/chapters/centralcoast/>

For more information or to be added to the CA Central Coast Chapter email list, please contact Robert Urban via email at [robert\\_urban@urscorp.com](mailto:robert_urban@urscorp.com).

**San Diego:**

For the latest information and updates, please visit <http://www.aegsc.org/chapters/extremesocal/>

**National Business Donation**

- **Platinum** - \$1,000
- **Gold** - \$500
- **Silver** - \$250

Company name, address and contact information are presented in AEG News and section receives 10% of donation. A national donation does not yield a line in our local section newsletter.

**Company & Employment Advertising Newsletter (includes SoCal website posting)**

	<u>Month</u>	<u>Year</u>
▪ Business Card	\$10	\$100
▪ ¼ Page	\$20	\$200
▪ ⅓ Page	\$30	\$300
▪ ½ Page	\$35	\$350
▪ Full Page	\$50	\$500

**SoCal website posting only**

\$20/month

\* The deadline for submitting an advertisement for next month's newsletter is Friday, May 30<sup>th</sup>.

**YEAR 2008 CONTRIBUTORS NEEDED**

Contributions from corporations and individual members are greatly appreciated. Contributors will be listed in our newsletter throughout the year and can post their logo or business card in the newsletter if so desired. Please mail contributions made out to **AEG** to our section treasurer, Peter Thams.

**2009 MEMBERSHIP RENEWAL**

For those of you who have not yet renewed **(the deadline is November 1)**, are unsure about your membership status, or did not receive your membership dues statement, please contact AEG Headquarters at [www.aegweb.org](http://www.aegweb.org). You can renew your membership online. Please update your membership if you wish to continue to receive future issues of the newsletter.

**\*\*\*NOTICE: Proposed New AEG Publication\*\*\***

**WHO'S WHO in SO CALIFORNIA ENGINEERING GEOLOGY**  
**The Evolution of Engineering Geology in Southern California**

Have you ever wondered "Whatever happened to\_\_\_?" or "I've heard of \_\_\_, who is he?"

The undersigned have decided to try to prepare an internet publication with the above title, which will include biographies of engineering geologists in southern California. We would like you to share your biography (autobiography) with other EGs. If you have worked on an interesting project, others would like to know about it.

If we limit each autobiography to 3 pages of text, plus photos, this publication would be more than 1,000 pages long. Therefore, we plan to utilize a proposed new AEG Foundation internet website, where there is no limit to total pages, and we can use color photos. Also, this new website will be available for no-charge access, worldwide, thus spreading the word on the history and evolution of engineering geology, and southern California's immense contribution.

We suggest (not require) three criteria for inclusion: 1. That you are a CA licensed CEG; 2. That you are now or once were a member of AEG; 3. That you have enough years of professional experience to relate one or more significant projects you have worked on. We believe there are more than 250 such EGs in southern California. This will be an evolving internet site where new autobiographies can be added.

We will also include Memorial biographies of past notable geologists in southern California. So far, we have identified 30, including John Buwalda, Ian Campbell, Tom Dibblee, Rollin Eckis, Perry Ehlig, Richard Jahns, John Mann, F.L. Ransome, Charles Richter, Dottie & Marty Stout, Gene Waggoner. Biographies of 14 of these notable geologists were published for the recent AEG Annual Meeting, in "History of the Association's First 50 Years," available from AEG HQ, contact Julie Keaton or Becky Roland.

Here is a CHECKLIST FOR YOUR AUTOBIOGRAPHY:

Complete NAME, address, phone, email; BIRTH DATE and place; UNIVERSITY(s) attended, major(s), degree(s), year(s); MILITARY service; FIRMS/AGENCIES you worked for; up to 3 significant PROJECTS you worked on; possibly relate a serious or humorous INCIDENT; a MENTOR you may wish to acknowledge; professional SOCIETIES, HONORS, AWARDS; HOBBIES; up to 5 PUBLICATIONS; PHOTOS of yourself and of projects (scanned images preferred).

So, if you wish to be included in this new internet publication, prepare your autobiography and email it with photos to: allen@hatheway.net and in the Subject box, type: So. Cal. Geologist. Or mail it to Allen Hatheway, 10256 Stoltz Dr., Rolla, MO 65401. Please, no more than 3 pages of text, single-spaced, Times New Roman, 12 pt.

Please pass this notice on to those you may know who no longer get this Newsletter.

In the spirit of camaraderie, we thank you,

Richard Proctor  
 Allen Hatheway  
 David Rogers  
 Larry Cann  
 Bob Lynn



**EMPLOYMENT OPPORTUNITIES & ADVERTISING**



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Richard C. Slade & Associates LLC  
Consulting Groundwater Geologists  
(818) 506-0418  
or email resume to:  
[b.georgeson@rcslade.com](mailto:b.georgeson@rcslade.com)

## **PALEONTOLOGICAL FIELD MANAGER SAN DIEGO NATURAL HISTORY MUSEUM**

The San Diego Natural History Museum is run and operated by the San Diego Society of Natural History, a private non-profit scientific organization incorporated in 1874. The Museum's mission is to interpret the natural world through research, education and exhibits; to promote understanding of the evolution and diversity of Southern California and the peninsula of Baja California; and to inspire in all a respect for nature and the environment. Within the Museum, the Department of PaleoServices (DPS) specializes in paleontological resource management. Our focus is on the recognition, recovery, and preservation of the significant and unique paleontological resources that occur in this region. The activities of DPS are helping to preserve significant fossil assemblages and are directly contributing to the growth of the important paleontological research collections at the Museum. We are currently looking to fill the following position.

Coordinate paleontological field activities (i.e., supervision of field monitors in prospecting for and collection of fossils and the recording of stratigraphic, taphonomic, geographic, and topographic data) and production of final project reports that summarize the methods and preliminary results of paleontological salvage activities. Other duties include generation of initial discovery letter reports for City, County, and/or State agency managers and generation of paleontological resource assessment technical reports. Opportunities also include paleontological field work in the Southern California region and working with the extensive fossil collections of the San Diego Natural History Museum.

Qualified candidates must have at least a B.S. Degree in Geology or Paleobiology; 2 to 3 years of relevant experience (especially sedimentary geology and paleontology); excellent supervisory/managerial, verbal, written, and interpersonal skills; and a strong work ethic, intense drive, and initiative for quality and customer service. This position is a regular, full-time salaried position with a generous benefits package (e.g., full medical and 401K plan). Compensation will be based on individual qualifications and experience (annual salary range \$40,000 to \$60,000). Please send resumes to Yvonne Kugies ([ykugies@sdnhm.org](mailto:ykugies@sdnhm.org)).

## JOIN NINYO & MOORE

### Company Profile

Since 1986, clients have turned to Ninyo & Moore for complex geotechnical and environmental challenges. As a leading geotechnical and environmental sciences engineering and consulting firm, Ninyo & Moore provides specialized services including evaluations for airports, bridges, commercial developments, dams, educational facilities, harbor and offshore structures, highways and roadways, hospitals, industrial developments, landfills, light rail transit lines, pipelines, power stations, railroads, residential developments, reservoirs and tanks, transmission lines, tunnels, water and wastewater treatment plants to clients in both the public and private sectors. With offices in Colorado, California, Nevada, Arizona, and Texas, the firm is fully committed to being responsive, cost-efficient, and thorough in meeting its clients' project needs and objectives.



### Available Positions:

- ✓ **DENVER:** *Construction Field Technicians and Inspectors, Environmental Engineer/Scientist-Air Quality Specialist, and Senior Geotechnical Engineer.*
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- ✓ **LAS VEGAS:** *Asbestos & Lead Professional, Construction Field Technicians & Inspectors, Geotechnical Engineer, Project Engineer/Geologist, Senior Project Engineer, and Staff Engineer/Geologist.*
- ✓ **OAKLAND:** *Entry-Staff Level-Project Engineer/Geologist/Environmental Specialist, Field Special Inspectors, Environmental Project Manager, Materials Project Manager/Supervisor, Project Environmental Geologist, Scientist or Engineer, Senior Geotechnical Engineer, Senior Project Geotechnical Engineer, and Staff Geotechnical Engineer.*
- ✓ **PHOENIX:** *Construction Field Technician, Geotechnical Engineer/Engineering Geologist, Project Environmental Scientist, Project Manager-Construction Materials Testing, Senior Environmental Professionals, and Senior Staff Environmental Scientist.*
- ✓ **SAN DIEGO:** *Construction Field and Laboratory Technicians, Project Engineer/Geologist, Senior Geotechnical Engineer, Staff Engineer, and Information Systems Specialist.*



Successful candidates should have a BS or MS degree for staff-level positions and five years or more of experience for project to senior-level positions. The candidates should be detailed oriented and have excellent verbal and written communication skills. Professional Engineer (PE) and/or Professional Geologist (PG) registrations are preferred for project or senior positions.

Ninyo & Moore offers excellent benefits and great opportunities for professional growth. Please visit our website for complete and detailed job descriptions and to submit your resume in confidence at [www.ninyoandmoore.com/careers.html](http://www.ninyoandmoore.com/careers.html) or mail to our corporate office at 5710 Ruffin Road, San Diego, CA 92123, Attention: Human Resources. EOE

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