

SAN DIEGO ASSOCIATION OF GEOLOGISTS

http://www.sandiegogeologists.org

SDAG MEETING ANNOUNCEMENT

Monday, June 4, 2018 *1st Monday*

SDAG / SCGS Joint Meeting!

And When the Landfill Swims with the Fishes

Presented by: Mr. Tom Bourque, P.E.

Where: Holiday Inn Express, San Clemente

35 Via Pico Plaza, San Clemente, California 92672 (See Map)

When: 6:00 pm – Social Hour

6:45 pm – Dinner

7:30 pm - Presentation

Dinner: TBD

Cost: \$30 Member, \$35 Non-Member, \$15 Students.

Add \$5 if you did not make a reservation.

Reservations: Make your reservation <u>online</u> at https://www.eventbrite.com/e/scgssdag-joint-meeting-june-

<u>2018-tickets-45825417056</u>no later than noon, Wednesday, May 30th. Reservations cannot be guaranteed after Wednesday at noon, but are always preferred over

walk-ins. EARLY reservations well before the deadline are MUCH

appreciated.

Directions:

<u>FROM INTERSTATE 5</u>: Take the 5 North. Exit Avenida Pico (Exit 76). Get in the left lane to head west on Avenida Pico (back under the 5 freeway). Take your first left on Via Pico Plaza. Holiday Inn Express will be on your right.

FROM INTERSTATE 15: Take the 15 north. Take either 56, 78 or 76 west to 5 North. Follow instructions above from interstate 5. If taking the 74 freeway west then you will have to take the 5 South to exit Avenida Pico.

Map:





ABSTRACTS

And When the Landfill Swims with the Fishes

Presented by: Mr. Tom Bourque, P.E.

The City of Port Angeles Landfill is located adjacent to Olympic National Park on the Strait of Juan de Fuca in Washington State. Three solid waste cells (west, middle, and east) located behind and within the 135-foot sea bluff had been closed for 20 years as new cells were constructed and operated behind (inland) of them. Bluff and seaward cell slope failures resulted in refuse discharge onto the beach, precipitating a 300-foot seawall to stabilize the west and middle cells in the mid-2000s. Subsequently changed wave dynamics off the sea wall eventually threatened the middle and east cells. Accelerated bluff erosion through block failures and wave erosion penetration into the east cell had reduced the seaward bluff wall thickness from the original 100 feet (back from the "edge" of the bluff) to as narrow as ten feet. Bluff erosion was also changing due to increasing storm intensity and higher high tide levels, commonly attributed to climate change observations. New cell configurations were developed based on slope stability, seismic loading, groundwater conveyance, projected bluff erosion patterns into the landfill site, and new landfill cover system approaches. The tallest mechanically reinforced earth wall ever built in Washington State was constructed, including being integrated into the new solid waste landfill cover system. Construction in 2014-15 occurred on the beach, within the bluff, and within the landfill site. In addition, endangered species were a significant issue. Stream and beach control and restoration were required due to several species including salmon and Taylor Blackback Butterflies. Three tribes participated in the project as well as the City of Port Angeles, Washington Department of Ecology, Army Corps of Engineers, US EPA, state resources agencies, and several community groups. This project was the largest solid waste relocation project ever undertaken in Washington State history.

Biography:

Mr. Bourque, P.E. is a Principal and Environmental Engineering Practice Director at GeoTek with over 25 years of experience as a project engineer and manager on environmental and civil engineering projects. His experiences include Superfund, solid and hazardous waste landfills, contaminated community redevelopment, contaminated surface and groundwater collection and treatment systems, flood control, and environmental restoration. He was the Project Manager and Engineer-of-Record for the Port Angeles Landfill Cell Stabilization and Protection Project.

UPCOMING MEETINGS

Meetings are usually held on the 3rd Wednesday of the month may change to accommodate the speaker and meeting place schedules. Check the SDAG website for updates

July, 2018	Student Presentation Part 2
August, 2018	Seismic Case Study by Alan Hull
September, 2018	TBD

2018 SDAG EXECUTIVE COMMITTEE

PRESIDENT: Chris Livesey; <u>liveseychris@yahoo.com</u>

VICE PRESIDENT: Ken Haase; haase@geoconinc.com

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llindsay@sunbeltpub.com

SDAG PRESIDENT'S CORNER

June, 2018

To all our members and affiliates, I would like to greet you this month by saying "good middle of the year" to all of you! I wanted to thank the venerable Monte Marshall for compiling a very thorough discussion of the universe last month at a new venue, "Wavelength Brewery" in Vista, California. I wanted to let our readers know the owner Hans at Wavelength hosts scientific based presentations very frequently and promotes the events on their company's Facebook page. Be sure to search Facebook for their page or website (www.wavelengthbrewco.com) and follow for the most current events at their Brewery. That being said, I wanted to ask our readers, specifically in my president's corner, Wavelength Brewery is looking for a volcanologist or a geologist with interests in volcanology to voluntarily discuss the recent events erupting in Hawaii. As you might guess, all of the volcanologists are in Hawaii at the moment.

As we tried and all (hopefully) enjoyed the new venue for May, our meetings will continue to evolve with a new joint meeting location this year, so please take note. The presenter is discussing a topic that have interests to intrigue almost all aspects of our field......you will not want to miss this meeting!

I wanted to leave you with a recent statement I like to recite....If you are not evolving, you are destined for extinction.

Sincerely,
Chris Livesey
SDAG President - 2018

ANNOUNCEMENTS

ONE-STOP WONDER CHALLENGE! ONE OSW A MONTH IN 2018! BEAPART OF SDAG HISTORY!

Have an idea for a one-day or half-day field trip?

Want to share your favorite aspect of San Diego geology?

Contact SDAG to schedule your One-Stop Wonder!

Your OSW may be chosen to be included in SDAG's One Stop Wonder Guidebook!

Contact Monte Murbach for scheduling!

montemurbach@gmail.com

2018 SDAG Field Trip

Friday October 12, 2018 through Sunday October 14, 2018

This year's field trip will take us to the Mojave Desert looking at geologic features created by the San Andreas and Calico Faults and some of the human history of the area. I am looking for volunteers for helping on the trip as well as someone who can lend one or more Honda 2000 generators that are quiet so we can provide early morning power at the campsite. Email haase@geoconinc.com if you have a generator or have any other questions. Signup form and pricing are being developed now. Hope you can join us!

National Drone Conference, Palomar College, July 6, 2018

Please join us for our National Drone Conference<http://www.palomaruas.weebly.com/> at Palomar College in North San Diego County on Friday, July 6, 2018! Our conference this year will feature a number of technical sessions with guest speakers from the fields of aerial cinematography, archeology, construction inspection, education, environmental conservation, mapping and surveying, photography, and much more! We will feature guest speakers from organizations such as General Atomics, California Community College system, University of California system, Southern California Edison, City of San Diego, and NV5. Please see the conference agenda herehttps://palomaruas.weebly.com/program.html.

- * Early-bird registration is \$25 for military and academic attendees (e.g. students/faculty) and \$45 for non-academic and non-military attendees until May 30th, 2018.
- * Regular registration is \$40 for military and academic attendees (e.g. students/faculty) and \$75 for non-academic and non-military attendees after May 30th, 2018.

Registration includes: access to our technical sessions and exhibits, as well as breakfast and lunch (catered by Habit Burger).

Don't miss this opportunity to learn from and connect with professionals, students, veterans, and educators in this exciting industry. Space is limited, register today at www.palomaruas.weebly.comhttp://www.palomaruas.weebly.com!

Geologist Wanted to Help with Mineral Exploration in Northern Baja

A man named Jack Shelburne (owner of Majuba Mining) is looking for a geologist to help with his mineral exploration team in northern baja. He can be reached at 801-381-5527.

SAVE THE DATE!

National Association of State Boards of Geology

ASBOG® 2018 Fall Council of Examiners (COE) Workshop and Field Trip

Marriott Hotel, Monterey, CA

November 1-3, 2018

COE WORKSHOP PRELIMINARY INFORMATION

The National Association of State Boards of Geologists (ASBOG) Needs You!

ASBOG will hold its fall Council of Examiners (COE) Workshop in Monterey, California on Friday and Saturday, November 2, and 3, 2018. A field trip will be arranged for Thursday November 1, 2018.

The purpose of the COE is to review the fall 2018 ASBOG examinations just given and review the subsequent examinations proposed for spring 2019. Licensed geologists are needed to participate. While these subject matter experts (SMEs) typically are drawn from among members of various state geology boards, additional volunteers are sought from the COE host state and its adjacent ASBOG-member states that use passing of the ASBOG examinations as licensing requirements. Over the long term, ASBOG has developed applicable and fair examinations used to lead to geologist licensing.

The COE Workshop process is a key component of expanding and maintaining relevant and defensible examinations for applicants seeking geologist licensing. Geologist SMEs play a critical role in providing sufficient professional experience to the COE Workshop, which gives fair weight to all geologist task areas. ASBOG conducts a Task Analysis every 5 years to support the COE's strict examination review process. Analysis results maintain the relevancy and currency of the examinations.

The COE Workshop is a 2-stage process with parallel sessions for both the fundamental and professional examinations. The SMEs receive instruction from ASBOG's psychometrician on the Workshop process. On the first day, each SME unofficially takes the most recently given ASBOG fundamental or professional examination. Then, the psychometrician guides a comparative discussion of the groups' collective examination results with those of the recent, fall examinees. Each item is either accepted as given, double-keyed, or removed from the item pool. Individual examinee comments are considered and discussed. Generally, seldom-used, new, or unclear items are reviewed by the COE group, especially if performance results are of concern. If time permits, SMEs are encouraged to write new items for the item pool.

This process is repeated on the second day to review and test items to be included in the spring examinations. The groups then evaluate the historic performance of items, and improve items that need improving.

ASBOG needs your participation as a COE Workshop SME. **Please email a statement of interest, and your credentials and contact information to Ms. Deana Sneyd, ASBOG Executive Director, at** dsneyd@asbog.org.

To qualify, each SME must have:

- A current license in good standing as a geologist in an ASBOG-member state.
- Worked as a professional geologist in industry, academia, or government.
- Be prepared to serve on the COE with no ASBOG reimbursement of any travel expenses.
- Agreed to ASBOG terms and conditions, provided under separate cover, to participate.

<u>Please Note</u>: This is a VOLUNTEER opportunity. ASBOG is a non-profit organization and is unable to reimburse travel expenses or pay for your time. However, they do provide some meals as part of the COE. The COE location rotates throughout the country and is unlikely to be in California again for 3 to 5 years. This is a unique and important opportunity to contribute to the geologic profession.

Absolution by the Sea - Now Open For Business!!

Long time SDAG member and past president, Cari Gomes, has assisted in opening a new brewery-restaurant called Absolution by the Sea, from Absolution Brewing Company. The restaurant is located at 7536 Fay Avenue, La Jolla, CA 92037. Phone 619-202-4152. Come enjoy great craft beer and food with your fellow geologists!

AEG - Grand Canyon Field Trip

AEG is coordinating a field trip of the Grand Canyon. Dates are June 8th through the 14th. Visit the AEG website or click the link here: https://www.aegweb.org/page/GrandCanFieldTrip? to make your reservation.

Volcanology Speaker Wanted!

Wavelength Brewery (our last meeting venue) in Vista is looking for a geologist or volcanologist to give a voluntary talk on the recent volcanic activity going on in Hawaii. If anyone is interested in doing this please contact the brewery. Here is a link to their webpage: www.wavelengthbrewco.com

Mineralogist Wanted to Identify Potential For Valuable Ore

A man named Brian Stewart is looking for help identifying the possibility for valuable ore in a pegmatitic vein deposit on his property in Temecula, CA. He says there are exposures of faults nearby and is pretty excited by some of these pegmatitic veins but needs some expert advice. He can be reached at 619-408-8441. Will Split Profits!! ;- D

<u>Professional Geologists Needed-Occupational Analysis Task Force</u> <u>Committee for BPELSG Exam Update</u>

We need your help...

The Board for Professional Engineers, Land Surveyors, and Geologists is conducting an occupational analysis regarding the profession of geology.

We are inviting California professional geologists to participate in an online survey to identify the tasks and knowledge that are relevant to the profession of California geology.

The purpose of the occupational analysis is to obtain feedback from a representative group of licensees and use the results to update the California Specific Exam for Professional Geologists.

This online survey is an essential step to ensure that the exam is current, relevant, and practice-related.

This is your chance for your voice to be heard.

If you would like to participate, please provide your email address and name to Erin LaPerle at (916) 263-1848 or by email to Erin.LaPerle@dca.ca.gov.

We anticipate releasing the survey in summer 2018.



Board for Professional Engineers, Land Surveyors, and Geologists 2535 Capitol Oaks Drive, Suite 300 Sacramento, CA 95833

phone: (916) 263-1848 email: Erin.LaPerle@dca.ca.gov www.bpelsg.ca.gov

Geological Society of America Annual Meeting

www.geosociety.org

2018

Field Trip Proposal Deadline: December 1, 2017

Technical Session/Short Course Proposal Deadline: February 1, 2018

Abstract Deadline: August 14, 2018

Meeting: November 4th to 7th 2018, Indianapolis, Indiana

52nd AESE Annual Meeting – Niagara Falls, New York

September 26th to 29th 2018

Mark your calendars! The 52nd annual meeting of the Association of Earth Science Editors will take place in Niagara Falls, New York, September 26 to 29, 2018.

AESE's meetings generally consist of 2 days of technical sessions and a 1-day field trip. Please join us for a fun-filled and educational experience September 2018. Meeting headquarters will be the Conference and Event Center Niagara Falls. The meeting hotel will be the Sheraton at the Falls, on Third Street, where a block of rooms has been set aside for attendees, at a nightly rate of US\$139 (\$129 for room + \$10 facility fee).

Niagara Falls has been a prime tourist destination since the mid-19th century. People come from around the world to see just the falls, themselves. But there is so much more to explore on both the American and Canadian sides of the falls, from world class wineries, Niagara Falls State Park (providing close access to the American and Bridal Veil falls), Niagara Gorge hiking trails, and art galleries to the Schoellkopf Power

Plant museum (providing easy access to the bottom of the gorge), Niagara rapids jet boat tours, Old Fort Niagara, Niagara-on-the-Lake and more....so remember to bring your passports if you wish to take in all that the area has to offer!

The meeting is open to anyone interested in earth science editing, publishing and outreach. The program is in the initial planning stage. Watch for meeting updates on AESE's web page www.aese.org. A closed Facebook group has been set up to share information https://www.facebook.com/groups/123266368358780/. For more information, please contact host chair, Marg Rutka, marg.rutka@ontario.ca, and technical program chair, Phil Farquharson philfarq@gmail.com.

Yonder Dynamics – UC San Diego Student Robotics Organization



Allison Kubo is the Science lead for Yonder Dynamics a university rover team at UC San Diego and an Earth Science student at Scripps. She reached out to SDAG looking for sponsors for their rover this year. Part of the competition is an analysis of the geologic settings of the area and soil retrieved by the rover which incorporates soil moisture, conductivity, and chemical testing.

She would be happy to partner with SDAG or anyone interested in the project.

Here are links to the team's website and sponsorship package:

Yonder Dynamics

Yonder Dynamics Sponsorship Package

SDAG Research Tool

SDAG RESEARCH TOOL - A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is now available on our website. Entries are sorted by primary author, or chronologically by date of publication, from our first guidebook in 1972, up the San Luis Rey River in 2013, from Coast to Cactus in 2014, and finally over the edge to the Coyote Mountains in 2015. These can be accessed or downloaded as .pdf files. They are fully searchable in Adobe Reader or Acrobat, so if you are researching a topic, "tsunami" for example, you can search for that keyword. This listing will be updated as new books are published. Thanks to Greg Peterson and Hargis + Associates, Inc., for making this possible. See the links below:

http://www.sandiegogeologists.org/SDAG Pubs authors.pdf

http://www.sandiegogeologists.org/SDAG Pubs chronological.pdf

Interactive Fault Map for San Diego

As part of the update for the San Diego-Tijuana Earthquake Planning Scenario, Working Group No. 1's "Fault Map Subcommittee" has completed the first publicly available bi-national active and potentially active fault map. This interactive GIS map includes the first publicly available active and potentially fault map locations from the City of San Diego. The City of San Diego fault locations and activity of faults are based chiefly on interpretation of information contained in geologic reports by private consultants. The City of San Diego identifies active faults as Holocene (<= 11.000vr) and potentially active as Quaternary (up to 1.6my). City of San Diego fault investigations are ongoing that may require future revision of this map. This map is not a substitute for a site specific fault investigation. The map also includes an updated fault map layer from the State CGS. CGS suggests users defer to the City of San Diego fault data, where marked, for increased accuracy. The map also integrated the faults south of the border for a bi-national cross border view. You can expand the map legend on the left side to see the fault ages and sources for each layer that can be turned on or off for the map view. You can select from 1 of 12 base maps. You can click on the fault line on the map to see the meta-data source. This map includes the yellow dashed SURFACE FAULT RUPTURE location layer that will be used for the infrastructure, social, and economic impacts and emergency response for the update to the Earthquake Scenario. In addition, active and potentially active fault investigation locations from private companies are planned to be added to this map as a resource. This map is an on-going project and resource as our knowledge increases about local active and potentially active faults.

The link is available at: http://www.sandiegogeologists.org/Faults_map.html

I would like to thank Carolyn Glockhoff for her endless GIS work, Jim Quinn and the City for providing their data and time, Jerry Treiman with CGS for his time preparing the Surface Rupture and providing their new State fault data layer, and Luis Mendoza at CICESE for providing the faults south of the border. Please contact Diane Murbach (dianemurbach@gmail.com), Chair for the SD-TJ Earthquake Scenario Working Group #1 - Earth Science, if you have any questions, or see any errors on this new fault map.

Diane Murbach (619) 865-4333

Engineering Geologist, C.E.G.

www.murbachgeotech.com

Request for 2018 SDAG/SDGS Publication Sponsors

On behalf of the San Diego Geological Society, Inc. (SDGS), a public benefit 501(c)3 nonprofit educational corporation, we would like to request tax deductible Donations for our San Diego Association of Geologists (SDAG) group. The list of paid Sponsors and the forms to become a Sponsor are located on the SDAG web site at: http://www.sandiegogeologists.org/Sponsors.html.

Your donation will further the SDGS mission to promote geology and related fields in the greater San Diego region, operating through the San Diego Association of Geologists (SDAG), a committee of SDGS. To achieve our primary educational objective, we organize frequent field trips and maintain a program of monthly meetings featuring speakers on current geological topics. We also publish field trip guidebooks and other publications related to geology and natural history. We encourage scholarship and research by awarding scholarships from the elementary through graduate levels. With your \$100 "EMERALD" donation, your name/business will be listed as a sponsor on the SDAG web site (http://www.sandiegogeologists.org/) and in the monthly SDAG meeting newsletters. With your \$500 "RUBY" or \$1,000 or more "DIAMOND" level donation, your business card will also be included on the SDAG web site and in the monthly SDAG meeting newsletters. In addition, as a "\$1,000 or more DIAMOND" level donation you will be presented with a thank you plaque.

Should you have any questions regarding a Sponsorship, please contact our non-profit SDGS Secretary (Diane Murbach) at 619-865-4333.

Call for Articles

SDAG invites members to submit articles on their current research or an interesting project they are working on for publication in the monthly newsletter. The article should be no more than 1 page in length. Photos are welcomed; too. Please submit articles to the SDAG secretary via email.

Geo Job Listings

Trevet is an Environmental and Engineering Consulting Firm headquartered in San Diego, CA. We are seeking a **full-time staff level Geologist or Environmental Scientist**. Two to five years of experience preferred. At a minimum a bachelor's degree in geology, engineering, or a related scientific discipline is required. Must be eligible to work in the United States, and on Department of Defense installations. Ability to travel for extended duration (2 to 3 weeks) is required. The ideal candidate will possess great attention to detail, excellent written and verbal communication skills, and ability to work independently and within a team.

Duties will include a combination of field and office related tasks.

Field experience should include:

- Installation of soil borings using multiple drilling methods
- Describing soil using the USCS and ASTM classification systems
- Installing and abandoning groundwater monitoring wells
- Field sampling of groundwater, soil, and soil gas
- Remediation system operation and sampling

Field work may be performed at project sites with environmental media (e.g., soil, sediment, groundwater, surface water, etc.) that has been impacted with hazardous substances and/or hazardous wastes.

Office experience should include:

- Field data collection, analysis, and interpretation
- Preparation of data in visual, graphical, and tabular formats
- Technical report writing

Other Requirements

Familiarity with CERCLA/RCRA requirements

OSHA 40-Hour HAZWOPER Training with current 8-hour refresher class preferred.

Trevet is an Equal Opportunity Employer

Please apply at

http://www.trevetinc.com/



Entry-Staff Hydrogeologist

OVERVIEW:

Hargis + Associates, Inc. (H+A) is an environmental consulting and engineering firm founded in 1979 with a commitment to providing high-quality, cost-effective services for our clients. We are headquartered in San Diego and have offices in Sacramento, CA, and Phoenix and Tucson, AZ. Our practice focuses on large facility investigation and remediation projects for Fortune 500 clients where we provide responsive, practical and innovative solutions for the treatment of soil, vapor and groundwater contamination. H+A also provides hydrogeologic and engineering services for groundwater resources assessment, stormwater management, and environmental regulatory and litigation support. H+A employs a staff of approximately 60 hydrogeologists, geologists, engineers, industrial hygienist, and project support personnel.

We are currently seeking an entry-staff level hydrogeologist to join our San Diego office supporting environmental investigation and remediation projects located throughout Southern California. These projects are primarily focused on the characterization and remediation of soil, vapors, and groundwater impacts at large industrial sites. In addition to implementing fieldwork for site investigations, the position will also involve data entry, interpretation, and technical report writing for various soil and groundwater monitoring programs.

RESPONSIBILITIES:

- Implement/and support field investigations for soil sampling, groundwater sampling, borehole drilling, and well installations.
- Complete tasks requiring utilization of critical-thinking skills, scientific, geologic, and engineering analytical techniques.
- Assist in the preparation of reports, work plans, sampling and analysis plans, remedial investigation reports, and groundwater monitoring reports under the direction and guidance of a Senior Geologist/Engineer/Scientist.
- Follow corporate health and safety and quality management plan standards.

REQUIREMENTS:

- BS degree in geology, hydrogeology or related technical discipline is required.
- 1-3 years of field experience in environmental consulting is preferred.
- Experience with geologic, engineering, scientific, or general environmental projects and data interpretation.
- Field experience with drilling, sampling (soil and groundwater), and well installations is a plus.
- OSHA 40-hr. HAZWOPER, current refresher preferred; training provided.
- General computer knowledge (Microsoft Office, Email); GIS and other environmental software experience is a plus.
- Excellent organizational and sound written/oral communication skills.
- Local candidates only; must be eligible to work in the United States.

PHYSICAL DEMANDS:

- Ability to drive, travel and/or perform field work approximately 50% of the time; some overnight and extended travel.
- Ability to lift 45 pounds.
- Must be able to perform the following actions while conducting fieldwork: stooping/kneeling/crouching, standing for long periods of time, pulling/pushing and lifting equipment and supplies, walking on uneven terrain.
- Ability to work in outdoor environments and hot/arid conditions.
- Ability and willingness to work long hours and in proximity to loud noises and hazards (i.e., proximity to moving mechanical parts, moving vehicles, and exposure to chemicals, fumes, odors, dusts, and gases).

Those who seek to apply may submit a cover letter and resume via email to hargisinfo@hargis.com

All qualified applicants will receive consideration for employment without regard to race, color, national origin, ancestry, sex, gender, gender identity, gender expression, age, sexual orientation, religious creed, physical or mental disability, medical condition, genetic information, marital status, veteran status, or any other classification protected by applicable federal, state, or local law.

Geologist Wanted in Corona, CA

GeoTek in Corona is looking for a geologist to prepare reports, Contact Chris Livesey (<u>clivesey@geotekusa.com</u>).

MP Materials, Mountain Pass, CA

Seeking Industrial Hygienist/Radiation Safety Officer

Please contact:

Chris Baker

Senior Environmental Specialist

m: 562.331.4507

cbaker@mpmaterials.com | www.mpmaterials.com

PHOTO OF THE MONTH

If you would like to submit a photo, email them to <u>secretary@sandiegogeologists.org</u> and I will try and put them in the newsletter. Provide a short description of the picture.



Spotlight

Photo Taken By Adam Avakian

This photo was taken in Antelope Canyon, Arizona. Antelope Canyon is a slot canyon located in northern Arizona just east of the Colorado River. The canyon walls are composed of the Navajo Sandstone Formation. Tour guides toss dust into the air to help see light rays beaming down through the top of the canyon.



Hargis + Associates, Inc. is an environmental consulting firm specializing in hydrogeology and engineering. We are headquartered in San Diego, California and have offices in Mesa and Tucson, Arizona. Our practice areas include all aspects of hydrogeology and engineering.

As a client service organization, we pride ourselves in being attentive and efficient in meeting our client's needs and solving their problems. In addition to our technical expertise, communication and responsive coordination are hallmarks of our reputation.

We invite you to explore our website to learn more about our firm and the services we provide. We welcome the opportunity to discuss our consulting expertise directly with you.

Contact: Dr. David R. Hargis

Mobile Geochemistry Inc.

H&P Mobile Geochemistry is an industry-leading provider of environmental lab services. With ten mobile labs and five direct push sampling trucks and unparalleled experience, H&P's repertoire of environmental lab services includes many forms of environmental lab sampling techniques all the way to on site field analysis services. H&P has successfully and accurately performed environmental lab services delivering quality results to our clients for over 16 years.

2470 Impala Dr., Carlsbad, CA 92010

(800) 834-9888

Contact: Louise Adams or Suzie Nawikas



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Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. We are a diverse company, including individuals with expertise in science, research, engineering, construction, and information technology. Our strength is in collectively providing integrated services—delivering the best solutions to meet our clients' needs.

http://www.tetratech.com



Contact: Rupert Adams, CEG

Geocon Incorporated

6960 Flanders Drive, San Diego, CA 92121 P| 858.558.6900

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EXCAVATING,

DEMOLITION, BREAKERS

Atlas Excavating & Breakers has been providing operated equipment rentals and excavating services to contractors & geologists in San Diego and Riverside counties sine 1991. We offer Mini Ex., 4x4 Backhoe & large excavators up to 75,000 pounds. "40 hour Haz Whopper" trained operator. Asphalt/concrete removal & replacement.

Contact: Barry Anderson 760-754-1337



ENERGETIC RESPONSIVE

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EXPERIENCED

858-275-6454

Trevet is a San Diego-based environmental engineering and consulting 8(a)-certified small business enterprise.



Leighton is a multidiscipline engineering firm, providing geotechnical, environmental, and testing and inspection services. Founded in 1961, Leighton provides engineering solutions to public agencies, property owners, and facilities. With offices located in San Diego, Irvine, Los Angeles, Temecula, Rancho Cucamonga, Palm Desert, Santa Clarita, Ventura, and Bakersfield, we efficiently service any region of Southern California. Our professional staff of Registered Geotechnical Engineers, Professional Geologists and Certified Engineering Geologists, Registered Hydrogeologists, and Registered Environmental Assessors and Certified Inspectors provide decades of local experience for the successful completion of your projects.

For additional information, please contact Bob Stroh (rstroh@leightongroup.com)

Website link: http://www.leightongroup.com

- <u>Dr. Pat Abbott</u> SDSU Professor of Geology, Emeritus
- _____
- Marty and Sherry Bloom
- Joe Corones
- Greg Cranham Consulting Geologist
- Damon DeYoung Battelle
- Dr. Margaret R. Eggers, CHG <u>Eggers Environmental</u>, <u>Inc.</u>
- Karen Evans for Jim Evans (Deceased)
- Phil Farquharson Geology Guy
- Carolyn Glockhoff <u>Caro-Lion Enterprises</u>
- Cari Gomes
- Dr. Sarah Gray

- Dr. Monte Marshall—SDSU Prof. of Geology & Geophysics, Emeritus
- John Minch
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- Rothman Creative (Fritz Rothman 619-278-1771)
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- Vic Camp
- Dan Gomes Absolution by the Sea https://www.absolutionbrewingcompany.com

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