



**ASSOCIATION OF ENVIRONMENTAL AND  
ENGINEERING GEOLOGISTS**  
*San Francisco Section*

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Announcing

**June 2007 AEG San Francisco Section Meeting**  
**Train Wrecks and Tectonics**

**MATT McMACKIN, Project Geologist, William Lettis and Associates**

**MEETING DETAILS**

**Restaurant:**

Sinbad's  
Pier 2 Embarcadero Street  
San Francisco, CA

**Date and Time:**

Tuesday, June 12, 2007  
6:00 pm—Social Hour and Sign-in  
7:00 pm—Dinner  
8:00 pm—Presentation

**Cost:** \$35 AEG members and non-members, \$10 Students

**Reservations ARE REQUIRED:** fax or e-mail Sachiko Tanikawa (fax # 510.268.5099, email: treasurer@aegsf.org) the following information: **name(s)**, **phone number**, and **meal choice**

by **NOON, FRIDAY, June 8**

**Meal Choice:** Chicken, Salmon or Vegetarian

**Driving Directions:** From the Bay Bridge, take the Fremont Street Exit and then Folsom Street Ramp. Go left on Folsom Street, then left onto the Embarcadero (Herb Caen Way). Sinbad's is on the right.

**BART Directions:** Exit the Embarcadero Station; walk up Market Street toward the Ferry Building (less than ½ a mile). Cross Embarcadero, Sinbad's is to the right of the historic Ferry Building.

**Parking:** \$3 valet parking is available or you can park at a meter somewhere on a side street off the Embarcadero.

**Please make reservations by noon FRIDAY, JUNE 8; availability cannot be guaranteed after Friday.**

**\*\*Walk-ins are not guaranteed!\*\***

For financial reasons no-shows and last minute cancellations will be charged.

## **Trainwrecks and Tectonics: A Seismotectonic View of Death Valley Geology**

**MATT McMACKIN, Project Geologist, William Lettis and Associates**

Train wrecks are synonymous with chaos and mayhem. Death Valley geology is well exposed and, in some places, wildly complicated. Those localized zones of complexity have been written off as the tectonic equivalent to a train wreck by some geologists. In fact, Levi Noble used the term chaos to describe widespread zones of highly faulted rocks that are common in Death Valley. Tectonic models that focus on 2 dimensional strains generally fail to embrace the full range of complexity observed in the field. A brief study of train wrecks provides a fresh perspective from which to unravel the complexity of the recent and ongoing processes of crustal deformation in Death Valley explaining problems of localized high-strain zones between well-preserved sections, the diversity of fault kinematics, and the distribution of active seismicity and recent deformation.

### **Speaker Biography:**

Death Valley geology has captivated Matt since he was a graduate student at UC Davis. His master's study was supposed to focus on Proterozoic stratigraphy but was sidetracked on reconstructing the paleogeography of the rocks after a long and eventful tectonic history. Many tectonic models later he's still looking for answers to the questions posed by too much outcrop. For a living, Matt worked in mineral exploration for a short time and then 16 years of teaching in Bay Area colleges. He recently joined William Lettis and Associates, where he works as a project geologist.

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**Thank you for the RSVP! See you on Tuesday, June 12<sup>th</sup>.**