

# Geological Society of Nevada Southern Nevada Chapter

Newsletter

### September 2006

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### Overview of Seismic Surveys in Las Vegas for Geotechnical Investigation

- SPEAKER: Jim O'Donnell Geological/Geophysical Consultant
- DATE: Thursday, September 28, 2006
- LOCATION: LFG Rm. 102
- TIME: Social half-hour at 6 pm Meeting business at 6:30 pm Talk at 6:45 pm

### SPONSOR: None

Geological Society of Nevada, Southern Nevada Chapter University of Nevada, Las Vegas 4505 Maryland Parkway, Box 4010, Las Vegas, NV 89154-4010 http://geoscience.unlv.edu/GSN/gsnsc.htm

### Join us as we begin another great GSN year! There

is much to look forward to this year. Jim O'Donnell will give us an update on his work with seismic technologies here in Las Vegas at the September 28 meeting. Dave Buesch will talk about the structural geology of Yucca Mountain during the October meeting. In January Steve Rowland will lead the discussion. There is still a need for a speaker in December, and in the spring, but the season is of to a good start.

Sponsors are needed to help provide refreshments at the upcoming meetings. Please contact Bruce if you are interested in helping out in this way. By sponsoring a meeting you allow us to put more money into other programs, events, or scholarships.

There are some new faces and some not-so-old faces among the leadership this year: Bruce Hurley, president; Jean Cline, vice president; Paul Bowen remains treasurer for one more year; and Joe Kula has taken on the secretary's position. They are already hard at work trying to make this year a memorable one.

A very special thank you goes to Lance Taylor of Geotemps for his continued support of our student members. Lance has offered to cover the cost of student membership dues for any full-time Student enrolled in an Earth Science major in the State of Nevada who is interested in joining the GSN. It is this kind of support that will help our chapter to grow a strong network of professionals.

-- Lora Griffin,

# **PRESIDENT'S NOTES**

Being president of the Southern Nevada Chapter (SNC) for this year is an honor, and I expect it will also be a challenge. I am looking forward to that challenge, and working with all of you during this year.

Although southern Nevada has nearly two million residents, the geoscience community here is fairly small. In Las Vegas, geoscientists are dispersed in numerous varieties of employment across a sizeable metropolitan area, very different from the environment of our sister chapters. The Reno, Winnemucca, and Elko Chapters have proportionally many more geoscientists, based in much smaller communities. Most northern Nevada members are geologists employed by mining-related companies with a vested interest in supporting and promoting a strong Geological Society of Nevada. That is also a benefit to our chapter, as it brings in sponsorships, direct funding, and the ability to access speakers and information resources from "up north."

Welcome though that benefit is, assistance from northern Nevada alone will not carry our chapter. Things already established for the northern Nevada GSN chapters, such as company sponsorships, expense funding for field trips, and a close-knit geoscience community, are not in place for the SNC. In fact, although there are several professional organizations which promote geoscience activities, none seems able to embrace the entire spectrum of geoscientists in southern Nevada. And that is the challenge before the GSN Southern Nevada Chapter: become and stay relevant to all segments of the geoscience community in the Las Vegas area. We need to welcome all geoscientists in our area, whether they participate in academia, geophysics, engineering geology, hydrologic studies, site characterization, paleontology, mineral exploration, natural resources management, or any other part of our field. We need to provide a unifying presence for geoscientists in southern Nevada, and tailor our activities to be of interest to all parts of the earth science community.

Can the elected SNC officers do all of this alone? A most emphatic "No!" But with your ideas and assistance, we can all do it together. So I urge you, each and all, to think about those geoscientists you know in the area who are not now a part of GSN, to contact them, and to invite them to our meetings and other upcoming activities. Please provide me, or any of the other officers, with any suggestions you have regarding future activities, topics for meetings, or potential sponsors for our programs. And most of all, please get involved and stay involved, because we need your help.

Thank you all for your support. *Bruce* 

# ADS & SPONSORS

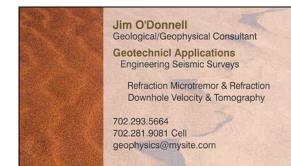
GSN is a non-profit organization and our chapter relies on meeting sponsors and advertisements to keep our chapter up and running. If your business would like to sponsor social hour at one of our southern Nevada chapter meetings or place an ad in our

newsletter please contact Robyn Howley at 702.895.5054 or robynhowley@yahoo.com.

## **UPCOMING EVENTS**

September 28: Meeting - Jim O'Donnell October 26: Meeting - Dave Buesch November 23: Meeting December 28: Meeting January 25: Steve Rowland

## **PAID ADVERTISEMENTS**



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### **Overview of Seismic Surveys in Las Vegas for Geotechnical Investigations**

Jim O'Donnell- Geological/Geophysical Consultant

## State-of-the Art Equipment & Very Sophisticated Software Does Seismic.....





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It has been two years since I presented "New Seismic Survey Methods for Solving Geotechnical Problems in Las Vegas" to this group. Consequently, this will be an update and a bit of the history on the seismic method as it was developed in Las Vegas.

Examples of Seismic Refraction (Vp) and Surface Wave (Vs) surveys will be given as they are used in geotechnical investigations.

Both 1\_D and 2\_D surveys have been successful and 3\_D surveys will eventually prove they are worth the extra effort and cost; as seismic systems and processing software become more available to work in the shallow section (<100' depths). The next step is to use both for 2\_D & 3\_D seismic Refraction, Reflection, and Surface Wave methods for Geotechnical investigation.

As a professional courtesy Jim will discuss or answer any questions you might have concerning geophysical methods. He can be contacted at: <u>Geophysics@mysite.com</u> or 702.281.9081