

Inland Geological Society

October 2011

Newsletter of the Inland Geological Society

Volume 27 No. 9

This Meeting:

Wednesday,
October 5th

Time:

Social: 6:00pm
Dinner: 6:30pm
Lecture: 7:00pm

Location:

LSA Associates
1500 Iowa Ave
Suite 200
Riverside, CA
92507

(Map on Pg. 6)

Coming to

Dinner?

Please RSVP:

By Friday 09/30
(951) 784-2168
dixie.lass@att.net

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October Speaker:

Mr. Walt Grinyer, P.G.

Associate and Branch Manager, Geosyntec Consultants, Inc.

Mr. John Daverin, P.G., C.Hg.

Senior Engineering Geologist, Eastern Municipal Water District

Application of 3D Visualization of Assessing Depth Discrete Data Sets

Abstract

Site 70 is the location of a trichloroethene (TCE) plume first identified in the early 1980's. The source of the plume is believed to have been the activities carried out in support of the Apollo program carried out at the Station. Saturn V rocket engines were assembled, tested, and cleaned at the site. The site used sufficient quantities of degreaser that a TCE manufacturing facility was located there.

Over a ten year period a number of borings, wells, trenches, and other investigative techniques were used at the Site to determine the extent of contamination and collect information to be used in formulating a remedial action plan. During that time, a plethora of maps, cross sections and other presentation materials were generated in an attempt to convey the extent, both laterally and vertically, of the plume to allow stake holders to agree on the remedial approach. Since the issues at the site are three dimensional (actually four dimensional when you consider time) it was a long, arduous process for the Station environmental staff to convey to regulators and other stake holders exactly the nature of the problem and how it was to be addressed.

(Continued on page 2)

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In order to bring stakeholders to a common understanding of site conditions, Geosyntec implemented an approach that built on previous work on the site along with a larger view of nearby injection activities occurring at the Alamitos Barrier, a seawater intrusion barrier within a mile of the site, by using Environmental Visualization Systems (EVS) software.

The presentation will focus on the standard, or historic, way of presenting a site characterization with standard two dimensional tools then contrasting those tools with a 3D presentation of the site plume characterization along with the remedial approach.

Biography:

Walter Grinyer, P.G., graduated with a Bachelor Degree in Geology from the University of California Riverside (1975) and has been working in geologic investigations for the past 35 years. He spent 13 years in oil exploration throughout western United States and the Far East. During that time he became involved in the effort to create three dimensional interpretation of the subsurface. Mr. Grinyer worked on the interpretation of early 3D seismic refraction data bases while working for oil exploration companies. His transition into the environmental consulting industry in 1989 changed the focus of his investigations but incorporated many of the same tools (down hole data, remote sensing, borehole logs, and educated guesses).

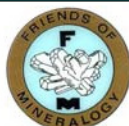
Currently he is working for Geosyntec Consultants Incorporated as an associate and branch manager. Mr. Grinyer has been working in the environmental field for 22 years. He works primarily for Federal clients on landfill and groundwater issues associated with past military practices. Through this work he has continued to work on better resolution of the conceptual site model using varied data bases. One of these sites is at the Naval Weapons Station Seal Beach Installation Restoration Site 70, a chlorinated solvent plume that impacts groundwater at the site. His discussion today will identify "typical" data presentation methods that our industry uses to convey complex information.

John Daverin P.G. C.Hg., has worked in the southern California area since graduating from Cal State Fullerton in 1992. Mr. Daverin's work history has included field work, GIS analysis, groundwater modeling, project management, and 3D visualization. He is currently employed as a geologist at Eastern Municipal Water District (EMWD), however the presentation that he will be sharing is not tied to EMWD.

Mr. Daverin spent approximately 7 years at Geosyntec Consultants, Inc. at their Huntington Beach and Riverside offices in a myriad of roles ranging from building and managing a GIS group to lead groundwater modeler at the Bolsa Chica Lowlands Restoration Project (Bolsa Chica Wetlands) to lead geologist at Seal Beach Naval Weapons Station - Site 70 in-situ bioremediation system installation (Site 70). Walt Grinyer, co-presenter, was the program manager for Geosyntec at Site 70. It is the work leading up to and completed at Site 70 that will be the focus of the presentation.

The Passing of Bruce Schell

Bruce Schell, a fellow IGS and AEG Inland Chapter member, has passed away unexpectedly on Sept. 2. As listed in his biography for an AEG Inland Chapter talk, Mr. Schell specialized in identification and location of geological faults, evaluating their earthquake potential (frequency, magnitude, recurrence intervals), determining the amount, type, and direction of displacements, and seismic probabilities. Over the substantial length of his career (~40 years) he had evaluated hundreds of faults and has excavated more than a thousand trenches. These studies typically employed the geological disciplines of remote sensing, geomorphology, soil stratigraphy, seismology, rock mechanics, and geophysics. He had published dozens of scientific papers on his research and project work. Recent papers include "Geologic Structure and Earthquake Hazard of the Palos Verdes Fault" in 2007 Pacific Section SEPM Book 103 and "Holocene faulting in the San Bernardino Valley Area" in 2008, AEG Bulletin. Bruce Schell will be greatly missed.



Mineral Locality Symposium

Minerals of the Mojave Desert

Saturday, October 22, 2011

Lectures & Field Trip, *See page 2 for Registration and Lodging information*

Sunday, October 23, 2011

Field Trips: High clearance vehicles required. Localities:

Saturday: Blue Bell Mine or Otto Mtn.—Sunday: Halloran Turquoise District

Sponsored By

The Southern California Chapter Friends of Mineralogy in conjunction with the Gem & Mineral Council of the Natural History Museum of Los Angeles County



Desert Studies Center

Field station of the California State University (CSU)

<http://biology.fullerton.edu/dsc/>

Located between Barstow and Las Vegas at Soda Springs in California (60 miles east of Barstow, eight miles southwest of Baker). To reach the Center, take I-15 (the Mojave Freeway) to Zzyzx Road. Drive south on Zzyzx Road four miles to the Center. Zzyzx Road is unpaved for most of its length, but is graded and should be driven slowly.

Saturday: Tentative Lecture & Activities Schedule

- | | |
|---------|---|
| 9:00 am | Registration |
| 10:00 | Welcome – Dr. William Presch, DSC Director |
| 10:15 | Mojave Desert – A Brief Stratigraphic & Structural History – Bruce Bridenbecker |
| 10:30 | The Blue Bell Mine – Dr. Robert Housley |
| 11:15 | Soda Lake Salt Production – R. Fulton, followed by walking tour of the salt works |
| 12:00 | Lunch Break |
| 1:00 pm | Minerals of the Mohawk Mine – Robert Reynolds |
| 1:30 | Minerals of Otto Mountain, Baker – Joe Marty |
| 2:00 | 1,000 Years of Mining History: Halloran Turquoise – Robert Reynolds |
| 2:30 | Afternoon Field Trip to Blue Bell Mine or Otto Mountain. <i>Silent Auction upon return.</i> |
| 6:30 | Banquet at the Desert Studies Center |
| 7:30 | Evening Keynote Speaker – Dr. Kampf: "California – Treasure Trove of New Minerals" |

Synopsis: More new mineral species have been discovered in California than in any other state. With 14 new species approved in the last few years, the number now stands at 135, greater than the nearest competitor, New Jersey, which has 76. California's geological diversity is responsible for its great mineralogical diversity. While New Jersey's large number of new species is principally from the remarkable Franklin/Sterling Hill deposits, California boasts a large number of deposits with unusual mineralogies. This program will highlight California's top 12 deposits (or types of deposits) for new minerals, with special emphasis on the most active current sources in the Mojave Desert.

Suggested donations for advance registration are \$65, for symposium, meals (L & D Saturday/B Sunday), bunk and showers (*Bring your own bedding and toiletries.*); \$50 for symposium, all meals but no bunk; \$10 student rate for symposium but no meals and no bunk (*Bring your own food and attend an organized camp with other students on Saturday night*). Donations for the Saturday field trip of your choice are \$5, and for the Sunday field trip, \$10. There is no self-contained camping at the Desert Studies Center. Registration is limited. Bring snacks and beverages for field trips.

Options: Motels in Baker, CA (Bun Boy, 760-733-4363; Wills Fargo, 760-733-4477)
 Motels in Barstow (50 miles west)



Advance Registration Deadline October 1, 2011

*You will not be able to
 register for this symposium
 at the door!*

Registration Form

Name(s): _____

Address: _____

Cell #: _____

Email address: _____

Preferred roommate: _____

Need Ride for Field Trips?: _____

Have 4WD/High Ground Clearance: _____

How many extra passengers can you take?: _____

Symposium with meals and bunk: Qty: ___ x \$65 _____

Symposium with meals: Qty: ___ x \$50 _____

Student (Symposium only): Qty: ___ x \$10 _____

Saturday Field Trips, pick only one:

Otto Mtn. Qty. ___ x \$ 5 _____

Blue Bell Qty. ___ x \$ 5 _____

Sunday Field Trip:

Halloran Turquoise Qty. ___ x \$10 _____

2012 SCFM Dues: Qty: ___ x \$15 _____

Total: \$ _____

Please make all checks payable to SCFM and mail to:

Robert Housley
 210 S. Catalina Ave. #3
 Pasadena CA 91106

Upcoming Meetings/Events

Rock & Gem Shows—Various locations

Various rock and mineral shows will be throughout So. California. To find one near you, visit www.rockngem.com/showdates.asp

South Coast Geological Society Meeting



Dr. Jun Lu, Principal Technical Specialist at AECOM, Long Beach, CA, will be presenting a talk on "Petroleum Hydrocarbon Forensics: Fundamentals and Applications" on Monday, October 3, 2011 at the Doubletree Club Hotel in Santa Ana, CA. For more info., visit

www.southcoastgeo.org

28th Biennial Groundwater Conference & 20th Annual GRA Meeting

The Groundwater Resources Association will be having their biennial groundwater conference and annual meeting on *California's Water Future Goes Underground* on **October 5–6, 2011** at the Radisson Hotel in Sacramento, CA. For more info., visit www.grac.org/



Los Angeles Basin Geological Society

The Los Angeles Basin Geological Society generally hold their meetings on the fourth Thursday of each month. The October meeting will be on **October 27, 2011** at The Grand at Willow Street Conference Center. Please visit

www.labgs.org to confirm meeting info.

IGS Meeting Schedule

November 3, 2011 (Thursday)

Joe Cota

Overview of Stormwater Regulations, Sampling, Inspections and Violations

December 7, 2011 (Wednesday)

TBA

January 12, 2012 (Thursday)

TBA

February 1, 2012 (Wednesday)

TBA

March 1, 2012 (Thursday)

TBA

April 4, 2012 (Wednesday)

TBA

SPEAKERS WANTED

We are still looking for more speakers for future meetings.

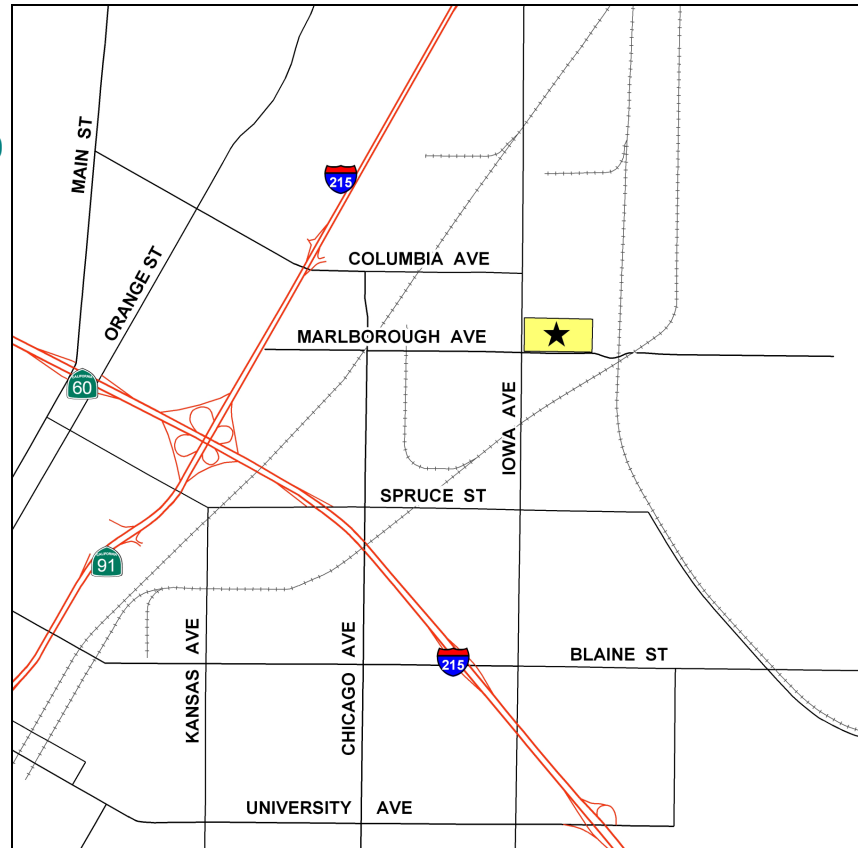
Tell us what you have been working on!

Students of all levels are encouraged to participate!

Please contact Jon Smith, Cindy Li or Steve Mains to get your name in the schedule!

IGS MEETING LOCATION:

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