

# SAN DIEGO ASSOCIATION OF GEOLOGISTS

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## SDAG MEETING ANNOUNCEMENT

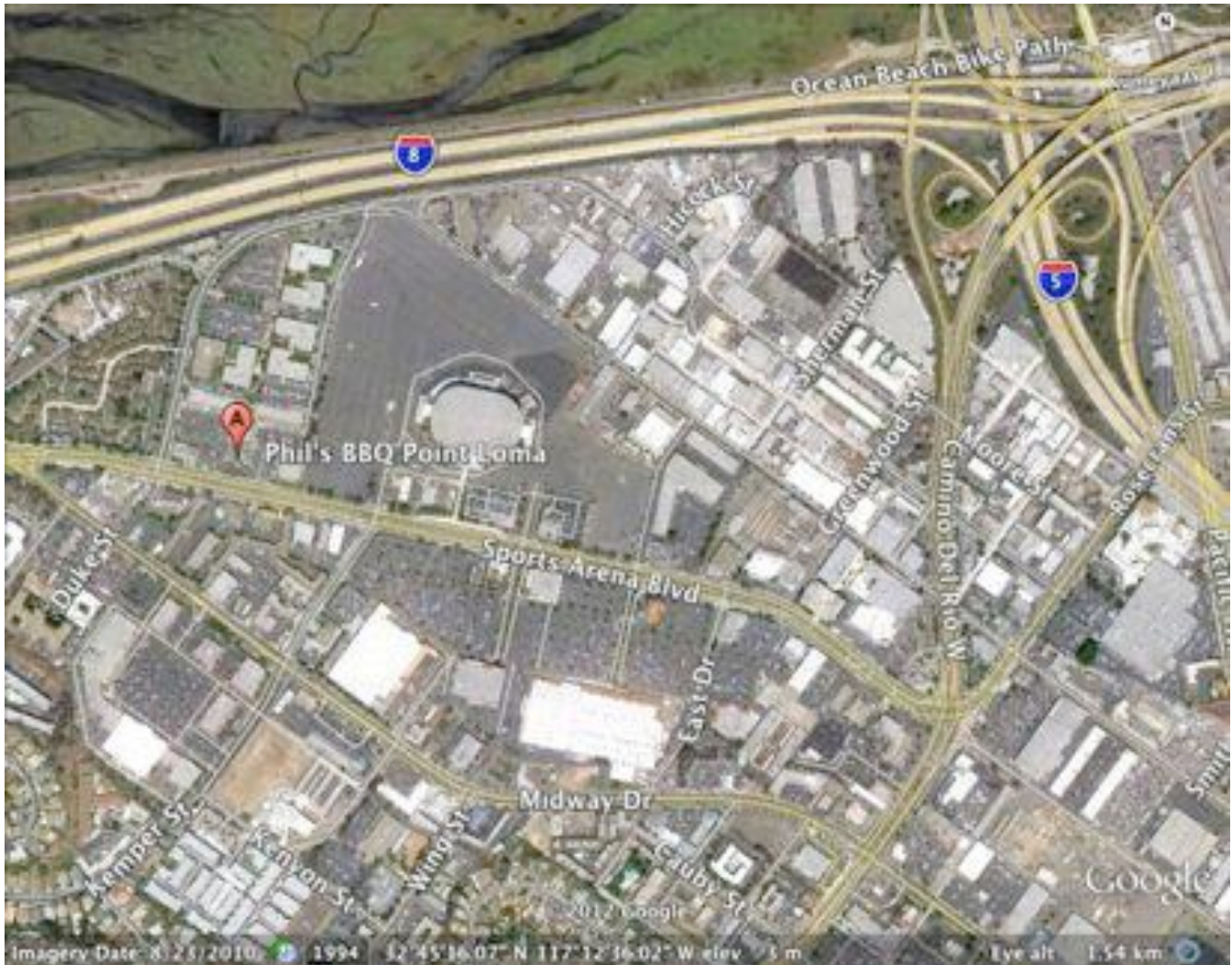
**WEDNESDAY, September 17, 2014**

### **Geology with MAHLI – “Mars through a Hand Lens”**

*Presented by:*

Gillian (Jill) Krezoski  
Missions Operations Specialist, Malin Space Science Systems

- Where:** **Phil’s Barbecue Point Loma (See the Map on Page 2)**  
3750 Sports Arena Boulevard  
San Diego, 92110  
(619) 226-6333
- When:** 5:30 pm – Social Hour  
6:30 pm – Dinner  
7:15 pm – Program
- Dinner:** Choice of Baby Back Ribs, Chicken, or Veggie Burger (please reserve as such). Includes sweet baked beans and fresh coleslaw.
- Cost:** \$30 per person, \$5 discount for members, STUDENTS and PROFESSORS: \$15. Add \$5 if you did not make a reservation.
- Reservations:** Make your reservation **online** at [www.sandiegogeologists.org](http://www.sandiegogeologists.org) **no later than noon, Monday, September 15th.** Reservations well in advance of the deadline are MUCH appreciated.



**RESERVATIONS CANNOT BE GUARANTEED AFTER MONDAY AT 12 NOON BUT THEY ARE ALWAYS PREFERRED OVER WALK-INS**

## **ABSTRACT**

The Mars Curiosity Rover has now been on Mars for two Earth years (since August 5, 2012)! Since her landing in Gale Crater, Curiosity has discovered water-derived environments, minerals that make up the foundation of life as we know it, and has measured critical parameters needed to design future human travel to Mars. Now, Curiosity is going above and beyond her initial prime mission objectives in order to recreate the geologic history of Gale Crater. We are heading to a large canyon where we can traverse up Mt. Sharp, the large mountain in the middle of Gale Crater, and create a geologic stratigraphic section. This talk will discuss some of the geology we have seen so far through the eyes of MAHLI – the Mars Hand Lens imager.



Windjana Drill target – MCAM taking a picture of MAHLI taking a picture of the drill hole and tailings on left; MAHLI image of drill hole and tailings on right.

Gillian (Jill) Krezoski is a geologist working as a Missions Operations Specialist for the Mar Science Laboratory at Malin Space Science Systems in Sorrento Valley, California. Established in 1990, Malin Space Science Systems (MSSS) designs, builds, and operates space camera systems for government and commercial aerospace customers. Several cameras built by MSSS are currently operating in orbit around Mars and the Moon. An additional deep space camera is on its way to Jupiter (Junocam) and is expected to arrive in October, 2016.

## **SPEAKER BIO**

Gillian received her Bachelor's degree in geology at the University of Wisconsin, Eau Claire where she specialized in Mississippian near-shore eolian sedimentology in Pennsylvania. She went on to obtain her Master's degree in Earth Science at McMaster University in Hamilton, Ontario (Canada), where she specialized in Quaternary near-shore marine sedimentology at a geoarcheological site in Turkey called Liman Tepe/Klazomenai. After graduating in 2008, Gillian moved to Pittsburgh where she worked for a geotechnical engineering company completing Environmental Impact Analyses for international nuclear plant sitings. She moved to San Diego in November of 2011 and began work at Malin Space Science Systems, where she coordinates with multitudes of scientists daily and operates the MAHLI, MARDI and Mastcam Science cameras on the Curiosity Rover.

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## SDAG MEETING SCHEDULE

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

October 2014	Field Trips – SDAG, SCGS, and GSA, among others!!!
November 19, 2014	Vic Camp – Mid-Miocene Flood-Basalt Volcanism in the Columbia River Province, Mantle Upwelling and Basin and Range Extension.
December XX, 2014	Santa Claus* – I have fossils of 3ma camels, 45ma redwoods and even a 90ma “tropical” turtle ( <i>Aurorachelys</i> ) coming out from under the ice up here – a global warming ho ho ho.

\*Tentative – yet to be confirmed

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## PRESIDENT'S CORNER

Belated (i.e. after the fact) Labor Day wishes to everyone out there, and with that, this newsletter can be considered our “Back to School Issue”. In fact it is a day or two late only because this past Labor Day weekend included trips to the beach, park and school supply store for your President! As the father of a five year old, I’m looking forward to many more last hurrahs similar to the one I just had. But alas back to school also means back to work for many of us.

This month we are headed back onto the artificial fill of the Sports Arena/Midway District, to Phil’s Barbeque. Many of you may have been around for our May meeting, where I managed to “ham and egg” Eric Drummond and Gillian Krezoski into graciously giving informal (read pulled together at the last minute) talks on contrasting ways to film the geology of Iceland and Mars (you had to be there). Given that Monte Marshall expertly brought us back to Iceland this past month, for a very entertaining hop across the Canadian and Baltic shields via tour ship, it is only fitting we give Jill and opportunity to pick up where she left off and give us some real detail on what the Mars Rover Curiosity has been finding of late. It was a bit by design (and time limitations) that she talked rover and camera logistics, but avoided any mineralogy this past May.

Please do us a favor and heavily advertise this upcoming meeting to any and all students out there. This will be a great venue and talk for those taking classes, illustrating yet another interesting thing one can do with a geology degree. I’ll call it “back to school” night!

Brian J. Olson  
2014 SDAG President

# ANNOUNCEMENTS

## SDAG 2014 FIELD TRIP

### **“Traversing a Transform Boundary – Regional Tectonics, San Diego to the Salton Trough”**

October 10 – 12, 2014

On this field trip we will explore the interaction of the major faults of Southern California to accommodate for motion between the Pacific and North American Plates. We will consider the tectonic evolution of the region and observe resulting landforms.

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**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.

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**CALL FOR PHOTOS!** SDAG invites members to submit photographs of an interesting geologic feature for publication in a new section of the newsletter – “Photo of the Month”. Please submit your photo along with a caption to the SDAG secretary via email.

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**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, through the Palms to the Pines, and finally up the San Luis Rey River in 2013. 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_authors.pdf)

[http://www.sandiegogeologists.org/SDAG\\_Pubs\\_chronological.pdf](http://www.sandiegogeologists.org/SDAG_Pubs_chronological.pdf)

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## Geology Books for Sale

Local geologist has a large collection of historic books for sale on coastal geology, sedimentology, marine geology, and oceanography, many of which are out of print. If interested, please email the SDAG VP for contact information [geologyjen@yahoo.com](mailto:geologyjen@yahoo.com)

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## ANNOUNCEMENTS (cont.)



The 2014 GSA Annual Meeting will be held from October 19th to the 22nd, 2014  
in Vancouver, BC Canada at the Vancouver Convention Centre

Information on the meeting can be found at  
<http://community.geosociety.org/gsa2014/home/>

Registration Deadline is: 15 September 2014

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for future reference:

The 2015 GSA Annual Meeting will be November 1 - 4, 2015  
in Baltimore, MD, at the Baltimore Convention Center

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### Internship/Job Shadow

My name is Wesley Antczak and I am currently a prospective geologist interested in studying hydrogeology. I am writing to see if anyone or any organization is accepting applications for internships or would be interested in allowing me the opportunity to shadow them during a day of work. Currently, I am trying to decide if I should go back to school and earn a second bachelor's degree in geology and I want to be 100% sure before I take on the massive commitment.

If you or your company can offer me some insight into the geology profession, please contact me at [Wesley.Antczak@gmail.com](mailto:Wesley.Antczak@gmail.com).

Furthermore, if anyone has any advice that could assist me in this decision, I would greatly appreciate your input.

Thank you and have a great day,

Wesley Antczak  
[Wesley.Antczak@gmail.com](mailto:Wesley.Antczak@gmail.com)

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## **ICE COLD GOLD SEASON 2**

The first season of ICE COLD GOLD was but a glimpse of Greenland's power and potential. This season, the threats and rewards are multiplied. Nothing about Greenland is implied; a new world is about to be defined. In the ruby-packed second season of ICE COLD GOLD, our spirited team of American miners returns to the most remote mining location on the planet with its eyes on a prize. With possibly the world's largest ruby in the Arctic glinting within reach, Sixty Degree Resources stretches the logistical challenge of



returning to its deposit to life-threatening, thin extremes. In Greenland, some of the rules remain the same. The window to the mining season is tight, and with no roads within thousands of miles, Sixty Degree Resources must travel to the most remote mining region in the world by boat and helicopter to reach its deposit. Then, the team must sling in thousands of pounds of heavy-duty mining equipment to get the job done. Nearly killing themselves for what they believe, these ballsy American miners bare all their emotions in chapter two of this life-threatening journey. The odds are stacked against them - with time being their worst enemy - as they face 24-hour sunlight, massive glaciers, unknown wildlife and remote, uncharted territories no American miner ever has set foot on before.

*See Ice Cold Gold Thursdays at 10:00 pm on Animal Planet*

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## **Request for Sponsors: 2014 SDAG/SDGS and 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 at our San Diego Association of Geologists (SDAG). 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.

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