

GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
(775) 323-3500 - Hours Monday -- Friday 8-3
Website: www.gsnv.org • E-mail: gsn@gsnv.org



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Mike Ressel
Kinross Gold USA, Inc
mikeressel@sbcglobal.net

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Peter Vikre
US Geological Survey
pvikre@usgs.gov

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Schlumberger Water Services
scarroll2@slb.com

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Bob Kastelic
Consulting Geologist
bob_kastelic@yahoo.com

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Kinross Gold USA, Inc
demmons@sbcglobal.net

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Marilyn Miller
AuEx Ventures, Inc.
marilyn.miller1@sbcglobal.net

OFFICE MANAGER

Kathy Sestanovich
gsn@gsnv.org

CALENDAR OF GSN EVENTS

- Nov. 11 Wednesday** **WINNEMUCCA CHAPTER** *(Every 2nd Wednesday of the month)*
The monthly meeting will be held at the Martin Hotel, 94 West Railroad Street. Drinks and appetizers at 6:30 PM, speaker at 7:00 PM. Sponsors for the evening will be announced. Speaker for the evening will be Joe Kizis, Consultant. His talk will be titled **"Bravo Venture Group's Homestake Ridge Deposit, British Columbia A Gold-rich, Jurassic Sub-seafloor Replacement Deposit"**. (see a partial abstract on page 6). For more information contact Matt Hoffer at (775) 635-4756.
- Nov. 19 Thursday** **ELKO CHAPTER** *(Every 3rd Thursday of the month)*
The monthly meeting will be held at the Western Folk Life Center, 501 Railroad Street. Refreshments at 6:00 PM, talk at 7:00 PM. Speaker for the evening to be announced. The sponsor for the evening to be announced. For more information contact Jim Essman at (775) 778-4374.
- Nov. 20 Friday** **GSN MEMBERSHIP MEETING** *(Every 3rd Friday of the month except June - August)*
The monthly meeting will be held at the Reno Elks Lodge, 597 Kumble Lane, Reno, NV. Drinks at 6:00 PM, dinner at 7:00 PM, and talk at 8:00 PM. Sponsor for the evening will be Kappes, Cassidy & Associates (Dan Kappes). Speaker for the evening will be Jake Lowenstern, Research Geologist, USGS. His talk will be titled **"Magma Intrusions, Hydrothermal Fluids and Gas Geochemistry of the Yellowstone Caldera"** (see abstract on page 3). Dinner reservations must be made by 1:00 PM Wednesday, November 18th. Contact Kathy Sestanovich at (775) 323-3500 or e-mail gsn@gsnv.org for reservations.
- Nov. 26 Thursday** **SOUTHERN NEVADA CHAPTER** *(Every Last Thursday of the month)*
The monthly meeting will be held at the Lilly Fong Geoscience building at UNLV, Room 105. Social hour begins at 6:45 pm with the speaker starting at roughly 7:15 pm. For more information contact Josh Bonde at 702-468-2500 or Swapan Sahoo at 773-402-9347.

FROM THE PRESIDENT

Mike Ressel, *GSN President 2009-2010*

On the Edge

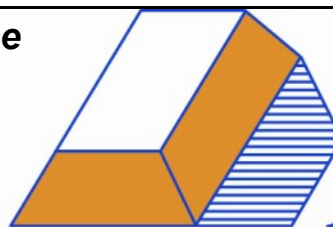
Dave Mathewson pointed out to me in 1996, when I was pretty green to the Carlin trend, how many Nevada gold deposits, especially economic ones, sit on the edge - that break in slope between basin and range. His observation, which struck me as profound at the time but one that others had almost certainly recognized before, is quite an important one when it comes to exploring here. That simple observation implies that the complex range-bounding faults, many of which we'd like to ascribe to only the youngest period of extension and uplift in the Basin and Range have been around for longer than just a few million years, and for at least as long as the deposits are old, with many going back to as far as the Eocene and perhaps earlier. Some faults have been variably active for much longer, such as the Post fault on the trend, which was intruded dozens of times by dikes of Jurassic and Eocene age and is even argued by some to have

(Continued on page 2)

GSN NOVEMBER MEETING SPONSOR

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May 14-22, 2010 GSN Symposium, Great Basin Evolution & Metallogeny

(Continued from page 1)

controlled deposition of the Devonian carbonates so important in hosting the world-class deposits there. Once a fault, always a fault may apply, just like the crack in Grandma's fine china breaks again where it broke before. The Post fault zone is a prominent topographic feature, and the most important ore-controlling feature of the Carlin trend; the millions of ounces mined along its 8-mile long strike come exclusively from its uplifted footwall, and it remains to be seen what's in store for its hanging wall pediment.

Examples of deposits riding the edge are more numerous than not, and the list is a sort of gold deposits hall of fame: Goldstrike, Gold Quarry, Meikle, Deep Star, Rodeo, Cortez Hills, Pipeline, Getchell, Turquoise Ridge, Twin Creeks, Round Mountain, Leeville, Cove. Even the Lone Tree mine, which lies next to its inselberg namesake, is a significant range front, now mostly buried. The list of Nevada gold deposits on the edge goes on and on if I were to include the dozens of smaller gold deposits in the state. A striking feature of many of these deposits is that they are blind or nearly so, and in the latter case, the exposed altered and mineralized parts were the tail, ear tufts, trunk, or in Cortez Pediment's case, the droppings, of the metaphorical elephant. The importance of pediment and covered exploration is further supported by recent discoveries in Nevada: South Arturo, Cortez Hills and Pediment, Northwest Cove (Helen Zone), and Spring Valley. A bedrock discovery bee-lining for the pediment to its north is Long Canyon in the Pequops, perhaps just the tail of more to come.

Seasoned Nevada exploration geologists know the pediment environment as a challenging place to work, but we also appreciate the great rewards that come with "blind" success. A lack of direct evidence for mineralization (i.e., a good rock or soil geochemical

anomaly) leaves us with a toolbox full of remote data a degree or two removed from the real McCoy. The pediment is a place for applying more time and effort into geophysics and geochemistry before drilling. One question to ask early is, "Does a pediment even exist on this edge?" Perhaps the best method is to pick your pediment wisely: knowing bedrock is mineralized nearby and "along trend" is a big plus, as is having knowledge of the depth of alluvial or post-mineral basement cover. With all of the tools used to work up blind targets on a pediment, it's the RC drill that has and will continue to be the mainstay when it comes to target testing. It may not be the best method for drilling in terms of data out the pipe, but on a cost-by-cost and time basis and by simple brute force of ground tested, it is the best first-pass method.

From pediments to magmas, this month's Reno meeting will feature Jake Lowenstern, lead scientist for the USGS' Yellowstone Volcano Observatory, who will discuss the active Yellowstone magmatic-hydrothermal system in a talk entitled, "Magma intrusions, hydrothermal fluids and gas geochemistry of the Yellowstone Caldera." Jake's talk of Yellowstone today is sure to draw comparisons to the fossil systems we explore for.

Also during the November meeting, Robert Story, attorney-at-law, will present a short discussion on the legalisms surrounding the daily rate as it applies to contracting/consulting for exploration. Robert will be sponsored by Lance Taylor and Geotemps, Inc.

See you down the road,

Mike

Photo Courtesy: University of Nevada, Special Collections

On this 150th anniversary of the discovery of the Comstock Lode, exhibits in UNR's Mathewson-IGT Knowledge Center portray life in the Virginia City area through writings, business records, photographs, and other rare items from the University Libraries' Special Collections that have never been on display. Exhibits are available from October 2009 through February 2010. To enhance your appreciation of the Comstock Era, join us for evening "conversations" with noted local experts each Wednesday evening in October. For details, visit www.knowledgecenter.unr.edu <<http://www.knowledgecenter.unr.edu>>. Admission: Free



RUSH TO WASHOE: THE RISE OF COMSTOCK

THEY CAME TO THE COMSTOCK TO GET RICH!

Some did, most didn't, and many died trying. When they found gold and silver in 1859, Nevada's landscape was forever changed. The Comstock became a magnet for the greatest literary and artistic talents of the day and absorbed immigrants from dozens of countries. Please join us for a celebration of early Comstock history.

**Thanks to American Assay for
sponsoring the Winnemucca
Chapter's September Meeting**

**Thanks to TonaTec Exploration, LLC. for Hosting
The Reno GSN October Meeting**

GSN November 20, 2009 Membership Meeting

Reservations Are Required - Please Cancel if You Are Unable to Attend

The reason we need reservations and also cancellations is because our caterer needs to know how many people to cook for. At the September meeting too much food was prepared because of no shows.

GSN CAN NO LONGER GUARANTEE DINNER SEATING WITHOUT ADVANCE RESERVATIONS.
Please call 775-323-3500, Fax 775-323-3599 or e-mail gsn@gsnv.org by 1:00 PM, Wednesday, November 18, 2009.
Social Hour: 6:00 PM – Dinner: 7:00 PM – Speaker: 8:00 PM
\$17.00 per person

Location: Elks Lodge, 597 Kumle Lane, Reno, NV
Directions: across (W) from the Reno-Sparks Convention Center
(S. Virginia Street, behind the Les Schwab Tire Center)

**Prepaid dinner reservations will only be accepted for the current monthly meeting.
Cancellations must be received two days before the meeting in order for your money to be refunded.**

Download the prepayment form from the GSN website: <http://www.gsnv.org/membership.html>

7:45 PM

Legalisms Surrounding the Daily Rate as it Applies to Contracting/Consulting Employees

Robert W. Story, Attorney-at-Law
Story Law Group, Reno, Nevada

Sponsored by Lance Taylor and Geotemps, Inc.

Robert W. Story is a partner in the law firm of Story Law Group in Reno, Nevada. Mr. Story practices business and employer-side labor and employment law. Mr. Story has represented employers before the Nevada Equal Rights Commission, the Equal Employment Opportunity Commission, the Department of Labor, the Nevada Labor Commissioner, and the National Labor Relations Board. He has litigated on behalf of management in connection with many types of labor and employment disputes, including claims based on the Labor-Management Relations Act, the National Labor Relations Act, Title VII of the Civil Rights Act (sexual harassment, race, gender, national origin, etcetera), ADA (disabilities), ADEA (age), FMLA (medical leave), ERISA (retirement benefits), Fair Labor Standards Act (wage and hour), Pregnancy Discrimination, and a wide variety of state laws, including trade secrets, non-competition agreements, and wrongful terminations. Mr. Story has represented public sector employers in administrative proceedings, arbitrations, civil rights employment litigation, and collective bargaining.

Mr. Story is a member of the Washoe County Bar Association, the Nevada State Bar Association, the Federal Bar Association, and the American Bar Association. Mr. Story earned his BA from the University of Nevada in Reno in 1976 and his JD from the University of Southern California in 1982. Mr. Story is admitted to practice in all state and federal courts in Nevada and the United States Supreme Court.

8:00 PM

Magma Intrusions, Hydrothermal Fluids and Gas Geochemistry of the Yellowstone Caldera

Jake Lowenstern, Research Geologist
U.S. Geological Survey, Menlo Park, CA

The Yellowstone Caldera continues to exhibit considerable unrest, displayed by frequent earthquakes, considerable ground deformation, and persistent hydrothermal activity. Yellowstone ranks among Earth's most prolific heat sources and a potent producer of natural emissions of carbon dioxide. Recent work indicates that magma intrusion rates remain high beneath Yellowstone, and the region is underlain by both rhyolitic and basaltic magma. In this presentation, I will discuss recent activity and unrest at Yellowstone, evidence for continued intrusion beneath the region, and our efforts to use gas and fluid geochemistry to gain insight into ongoing magmatism and related hydrothermal activity. Our gas sampling reveals marked geographic variability as one traverses the caldera, yet impressive consistency within a given area. Isotopes of helium, carbon, oxygen and hydrogen, as well as trace gas ratios provide insight into shallow crustal and magma degassing.

Upcoming Events

**Nov. 9
Monday
6:00 PM**

The Northern Nevada Chapter of SME will be holding their monthly dinner and talk starting on Monday, Nov. 9th, 2009. The following is the topic for our meeting:

DEVELOPING NEVADA'S NEXT MAJOR COPPER MINE - Pumpkin Hollow Project

Nevada Copper owns 100% of the Pumpkin Hollow Copper Development Property in the Walker Lane mineralized belt of Western Nevada.

Pumpkin Hollow is an advanced development stage copper property, which contains Measured and Indicated Resources totaling 5.6 Billion pounds of Copper plus additional Inferred Resources of 3.7 Billion pounds of Copper (all using a 0.2% copper cutoff grade). This 9.3 Billion pound copper resource, 1.45 million ounces of gold, 55 million ounces of silver and 130 million tons of contained iron in 361 million tons at an average grade of 36% iron at a 20% iron cutoff was estimated effective June, 2009.

Contained within the larger resource is a high grade component of 77 million tons grading 1.7% Copper at a 1.0% cut-off containing 2.6 Billion pounds of Copper. Ongoing drilling has yet to define the limits of this world class Copper-Iron-Gold-Silver deposit.

Joe Kircher, Nevada Copper's COO, provides a project update of Pumpkin Hollow, including the status of the Feasibility Study currently underway.

The SME meeting will be held at 6:00 PM at the Circus-Circus. Email neville.rhoden@gmail.com for reservation.

Members \$22
Non Members \$25
Social Hour begins at 6:00 PM
Dinner starts at 6.45 PM
Technical Talk begins at 7:30 PM

**Nov. 6-8
Fri-Sun**

GSN Fall Field Trip
Featuring **Underground Tour of the Leeville Carlin-Type Au Deposit**

**Nov 11
Wednesday**

The **GSN Board of Directors** meeting will be at 4:00 PM at the Martin hotel in Winnemucca.

**Dec 15
Tuesday**

20th AIPG Exploration Roundup, Tuesday, December 15, 2009

Location: Reno Ramada, Sky Room, 6th and Wells, Reno (former Holiday Inn)
Time: 6:00 PM - Hosted Bar, 7:00 PM - Dinner, 8:00 PM, Program

This is the 20th Anniversary of this event. The sole sponsor for 20 years has been Lance Eklund and Marty Dennis, Eklund Drilling (now Boart Longyear/Eklund Drilling). Without their support, this event would not take place.

Mark Stock is continuing his tradition of crystal specimen donations for auction to benefit our UNR student chapter. AIPG will announce their speakers in their November GSN newsletter.

Note for Members receiving hard copies of the Newsletter by mail:

In 2008-2009, there were approximately 90 members that received the GSN Newsletter by regular mail. Due to the increasing costs of printing, the presort mail service and postage, the cost to members receiving the Newsletter by mail will be increased from \$60 to \$70 per year. Receiving the Newsletter by e-mail has the added benefit of receiving the Newsletter more quickly than by mail and the Newsletter can be easily archived on your computer. It is also easy to print out hard copies using Adobe Reader®. If you currently receive the Newsletter by regular mail, please consider switching to e-mail. You can download the membership application by going to this section of the GSN website: <http://www.gsnv.org/membership.html>

Thank you,
Dave Emmons
GSN Membership Chair



GSN 2010 SYMPOSIUM

MARK YOUR CALENDARS

>> May 14-22, 2010 <<

John Ascuaga's Nugget, Reno/Sparks, Nevada

*The Geological Society of Nevada invites you to attend our sixth symposium, **Great Basin Evolution and Metallogeny**. We strive to maintain a tradition of excellence, emphasizing descriptive accounts of ore deposits, new theories on deposit formation and innovative concepts of how to find the next district or deposit.*

Technical Sessions:

- Carlin-Type Deposits I and II
- Great Basin Metallogeny
- Nevada Geology and Tectonics
- Discovery Case Histories
- New Mine Developments
- Volcanic-Hosted Epithermal Deposits
- Young Au-Ag Hydrothermal Systems
- Styles of Tertiary Magmatism and Metallogeny
- Exploration Geophysics

- Intrusion-Related Deposits
- Geothermal
- Rumors from the Bush—Great Basin Exploration Update
- Outta the Box—Concepts in Great Basin Geology and Ore Deposits
- Exploration Remote Sensing
- Regional Exploration Roundup
- World Exploration
- Exploration Success—Americas

Field Trips:

There are a total of eight Field Trips

- CARLIN GOLD DEPOSITS—THREE DIFFERENT TRIPS
- EPITHERMAL DEPOSITS—TWO DIFFERENT TRIPS
- PORPHYRY AND IOGC DEPOSITS
- MODERN AND ANCIENT GEOTHERMAL SYSTEMS
- INDUSTRIAL MINERAL DEPOSITS

Short Courses:

- SEG WORKSHOP—GOLD IN 2010
- STRUCTURAL SYSTEMATICS
- FUNDAMENTALS OF NI 43-101
- MOLYBDENUM DEPOSITS
- ARCGIS
- REMOTE SENSING
- SAMPLE COLLECTION, PREP AND ANALYSIS
- ISOTOPES AND EXPLORATION

Co-Hosts:



Contact Us:

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www.gsnv.org/symposium

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GSN Winnemucca Chapter Meeting October 14, 2009

Bravo Venture Group's Homestake Ridge Deposit, British Columbia A Gold-rich, Jurassic Sub-seafloor Replacement Deposit

J.A. Kizis, Jr., R.W.J. Macdonald, & B. Kasper
October 2009

The Homestake Ridge property is located approximately 32 km southeast of Stewart, British Columbia. Bravo acquired the property in 2003 from Teck Cominco Ltd. and a private vendor. Through 2008, Bravo spent approximately CD\$12.5 million and drilled 120 core holes (~27,200m), the majority at the Main Homestake deposit. During 2009, Bravo plans to spend ~\$5 million drilling 40 additional holes (~8,500m) and conducting other work.

Lower-Middle Jurassic Hazelton Group rocks host several precious- and base-metal showings on the property and consist of andesitic to latitic volcanic rocks, tuffaceous and carbonaceous sediments, local rhyolitic domes, and multiphase feldspar-hornblende porphyry subvolcanic intrusions. Other deposits hosted in the Hazelton Group include Barrick's rich Eskay Creek deposit, ~115km to the north and now in closure.

For the complete abstract see the October Newsletter, Reno meeting abstract on page 3 or click here to download it from the GSN website: http://www.gsnv.org/abstracts/reno/2009_abstracts/10-2009_Bravo_Venture_Group_Homestake_Ridge_Deposit-Joe_Kizis.pdf

FACES OF GSN

Carrie Bruno, Spring Creek, Nevada
Great Basin College Earth Sciences Faculty and
Science Department Co-Chair

Jim Essman, Spring Creek, Nevada
Project Geologist, Newmont Mining Corporation

Carrie Bruno, Spring Creek, Nevada
Great Basin College Earth Sciences Faculty and
Science Department Co-Chair

A few GSN members may know a structural geologist by the name of Don U. Wise. Don has the distinction of being the Chief Scientist at NASA during the Apollo lunar landings and I was fortunate to experience his vibrant, memorable teaching style in Geology 101 at Franklin and Marshall College in Lancaster, Pennsylvania. By the end of the first week of classes, Don easily hooked me on geology with his vivid description of plate tectonics and the occasionally reminder that long ago when he was in our shoes, (back in the Eocene, he claimed) Plate Tectonics was not an accepted theory. And by the end of the semester, road trips from Lancaster to my home in central Pennsylvania transitioned into geologic adventures from the Piedmont through the Ridge and Valley, and an exploration in geologic time. Don continues to be one of the most poignant figures in my life and a trusted mentor. I will forever be grateful for his enthusiastic dedication to geoscience education and his unforgettable sense of humor.

While encouraging me to apply to graduate school, Professor Wise kindly reminded me I was entering a male-dominated field and I would surely encounter rugged, disheveled outdoorsmen. With that, I was off to Oregon State University where I met Jim Essman. During my time at OSU, I spent two field seasons in Ancient Korinth, Greece as a soil geomorphologist for the Eastern Korinthia Archaeological Survey and collected soil samples for an exciting stable isotope thesis on paleoclimate. Since I was working with a group of crazy art historians and archaeologists, I also learned how to identify Greek, Roman, and Byzantine pottery (a skill that, surprisingly, is not entirely useful for work in the Great Basin).

Jim and I defended at OSU on the same week in February 2003. We moved to Elko the following month and Jim started at Newmont as an Ore Control Geologist. I worked as an environmental consultant for two years before applying for and accepting the position at Great Basin College.

Jim and I enjoy participating in Elko's active geologic community. The Elko Chapter of GSN graciously supports a scholarship for Great Basin College students and presents the recipient with the award during the Holiday meeting in December. As the lone Earth Sciences faculty at GBC, I appreciate the guidance of the past and current Elko Chapter GSN Presidents and the support of the GSN membership.

If I'm not in the classroom or talking about geology, you will likely find me spending time with my family, cooking, reading, hiking, or playing the piano.

Jim Essman, Spring Creek, Nevada
Project Geologist, Newmont Mining Corporation

When I was ten years old my father, a high school librarian and former science teacher, took a sabbatical and for the '86-'87 school year I traveled around the U.S. with my parents in a 27 foot class C motor home. While traveling through the varying landscapes and geologic provinces from the northern Rocky Mountains to the coral reefs of southern Florida I developed a love for the outdoors, science and all things geologic.

When enrolling in college 9 years later I eagerly signed up for my first geology class. After less than one week of classes I changed my major from education to geology, a move that during my first week of mineralogy I seriously questioned. However, my fears were



(Continued on page 8)

GSN December Meeting

SILENT AUCTION & RAFFLE ITEMS NEEDED!!

It's time to think about donating items for the Geological Society of Nevada Foundation's fundraiser "Rock Raffle and Silent Auction" to be held at our annual Christmas meeting on December 16. We are seeking donation of any items suitable for raffle or silent auction: gift baskets, attractive rock or mineral samples, gems or gemstones, jewelry, wine or other spirits, logo items, geological equipment or publications, commemorative coins, GOLD, or any geology or mining-related items will be gratefully accepted.

Raffle proceeds support GSN Foundation's educational projects, which include grants to Nevada K-12 classes for transportation on earth science related field trips, scholarships to UNR and UNLV geology students, grants to the UNR DeLaMare Library, and grants for geologic mapping in Nevada.

Donors will have their names displayed on signs at the event as well as having their names listed in the January newsletter. The GSN Foundation is a 501(c)(3) public charity, tax ID # 88-044 7867.

Please send donated items to DD LaPointe or Rachel Dolbier at the address listed below, or call to arrange pick-up of donated items if you are in the Reno-Sparks-Carson City area. We need to have all items in hand by Monday, December 14, 2009 in order to prepare labels and make bid sheets.

Thank you for your support!

D.D. LaPointe
GSN Foundation Trustee
Nevada Bureau of Mines and Geology/MS178
University of Nevada, Reno
Reno, NV, 89557-0178

Phone: (775) 682-8772
FAX: (775) 784-1709
e-mail: dlapoint@unr.edu

Rachel Dolbier
GSN Foundation Trustee
W.M. Keck Museum/MS 0168
University of Nevada, Reno
Reno, NV, 89557-0168

Phone: (775)784-4528
FAX: (775)784-1766
e-mail: rdolbier@unr.edu

(Continued from page 7)

soon dispatched when I discovered field geology. I pursued a field based mapping thesis focused in the Permian mélangé and Columbia River Basalts exposed in Hell's Canyon, NE Oregon. I spent two field seasons camping on the shores of Brownlee Reservoir with my field assistants, my father and his Rottweiler named Ruger, and mapping. During graduate school I met a young woman majoring in soil science at a Halloween party on whom I used the following pick-up line "can you get slickensides in soil?" Despite what you might think this actually resulted in a meaningful conversation.

I look back on my time at OSU with great fondness and I feel very fortunate to have had the opportunity to study under the advisement of seasoned geologists and disciplined scientists. Their enthusiasm for the scientific method, emphasis on using multiple working hypotheses, making basic observations and the fundamentals of field geology are all traits I strive to emulate and demonstrate on a daily basis.

Upon the completion of my degree at OSU in 2002 my job search turned up precious few leads. In the spring of 2002 Carrie and I moved to Stevensville, MT where I accepted a summer position with the Bitterroot National Forest. While there I spent the summer compiling an interpretive geology guide for the Bitterroot district. In March of 2003 I joined Newmont and Carrie and I moved to Spring Creek. For the next 3 years I worked ore control, highwall mapped up and down the Carlin trend and learned the skills of deposit development geology from several skilled mentors and friends. In 2006 I transitioned to the exploration group, my work takes me all over Nevada but mostly I remain focused in the near mine environment. I feel very fortunate to have been afforded so many opportunities to learn from the many accomplished geologists I have worked with in years past, and I look forward to many more in the years to come.

When I am not chasing rocks around I enjoy discussing geology with Carrie and walking our dog Maggie as well as pretty much any outdoor activity from hiking and backpacking to backcountry snowboarding with friends.



GSN DIRECTORY ADVERTISING ORDER FORM can be downloaded from the GSN website:
<http://www.gsnv.org/membership.html>

Final Deadline

(All advertisements are due no later than December 20, 2009)

All advertisements must be camera ready, **black and white** or submitted as TIFF or JPG digital format. Please send your advertisement and check (payable to Geological Society of Nevada) by December 20, 2009 to: Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512 - E-mail digital advertisements to: gsn@gsnv.org

NEWS FROM THE GSN FOUNDATION

The GSN Foundation Board of Directors for FY2009-2010 are:

Roger Steininger, Chair
Dieter Krewedl, Vice Chair
Kel Buchanan, Secretary
Cami Prenn, Treasurer
D. D. LaPoint, Educational Committee
Rachel Dolbier, Educational Committee
Dan Rovig, Member

Your Foundation is in good financial condition with approximately \$255,000 in the treasury, of which about \$233,000 is in restricted accounts, including the Endowment. Part of the Foundation's mission is to build an endowment that will maintain the organization in the future. This is a difficult task in the current environment; interest income during the first quarter was about \$10. We are taking steps to improve our investment income, while maintaining the capital base. We also need to continue to grow the Foundation's financial base to support and expand the several programs. As you renew your GSN membership for the coming year please consider a contribution to the Foundation.

We are planning to expand our outreach in the coming year. The K-12 Field Trip Grant program for school teachers who take classes on earth science related field trips is a priority. If you have contact with teachers who are not aware of this program please direct them to the GSN web site for information and application forms. A grant for UNR geology field camp students is likely again this year. There will also be a contribution to the UNR geology department scholarship fund. Previously, the Elko Chapter raised funds to offer an earth science related scholarship to a local student. We hope to continue that program. A contribution to the DeLaMare library is also planned to purchase materials that will benefit our membership.

The Foundation is moving forward with support of mapping projects through the Nevada Bureau of Mines and Geology. The current plan is to supply funds to complete geological maps in the Vicksburg Canyon, Pequop Mountains, and Wood Hills areas.

We will continue the tradition of the Christmas meeting auction and need contributions of appropriate items. This has been a significant fund raiser for the Foundation and we encourage your support.

Since its formation, the membership and our many friends have been extremely supportive of the Foundation. I sincerely thank you all for sustaining the functions of the Geological Society of Nevada Foundation. Many individuals outside of our industry know of GSN through the activities of the Foundation, and that is a good thing.

Roger C. Steininger
Chair, GSN Foundation

LOOKING FOR GRADUATES or SUMMER (FULL-TIME)/YEAR-ROUND (PART-TIME) INTERNS?



We have what you need.

Mackay School of Earth Sciences and Engineering has students in geography, geology, geological engineering, geophysics, hydrogeology and mining engineering, taught by a faculty that combines a keen focus on field skills with hands-on undergraduate research opportunities. Our students are serious about what they do and have exceptional foundational knowledge of their respective fields of study.

Many are seeking the experience, enrichment and financial assistance that one receives from working in the mining/resource industry. To find the students or graduates from the Mackay School, call Leslie Rumph, Mackay Retention Coordinator, at 775-682-8370 or email: rumph@mines.unr.edu.

University of Nevada, Reno

Dues Renewal Deadline is December 20, 2009

You can renew your dues now by downloading the form from the GSN website:

<http://www.gsnv.org/membership.html>

Please make sure to update all information. Please consider making a tax-deductible donation to the GSN Foundation. Foundation dollars are used exclusively for the K-12 grade Field Trip Grant Program, Nevada Mapping Grants and UNR scholarships. Also, please consider donating to the Student Dinner Fund, which is used to purchase dinner for students who attend the monthly membership meetings.

ACTIVITY UPDATE

Mike Brady, September 2009

Nevada

www.activityupdate.com

Solitario Exploration + Royalty Corp. announced that it offered to acquire Metallic Ventures Gold Inc. through a 1.0 share Solitario/0.327 share + \$0.298 cash per Metallic share for a total value of \$15,500,000. (resource @ Converse = 262,350,000 tons @ 0.015 opt Au measured+indicated) *Press Release: August 24*

Christopher James Gold Corp. announced that it acquired an option to earn a 50% interest in the Zebra Property from Fortune River Resource Corp. for maximum \$50,000/year payments and its portion of the exploration expenditures. *Press Release: September 1*

NuLegacy Gold Corp. announced that it acquired an option to earn a 60% interest in the Red Hill Property from Miranda Gold Corp. for \$4,000,000 in exploration expenditures over 5 years. *Press Release: September 22*

Barrick Gold Corp. announced that reserves at the Cortez Mine aggregate 222,125,000 tons @ 0.060 opt Au proven+probable. (was 86,457,000 tons @ 0.080 opt Au proven+probable) *2008 Annual Report*

Barrick Gold Corp.(75%) announced that reserves at the Turquoise Ridge Mine aggregate 10,614,700 tons @ 0.501 opt Au proven+probable. (was 11,238,700 tons @ 0.458 opt Au proven+probable) *2008 Annual Report*

Barrick Gold Corp.(50%) announced that reserves at the Round Mountain Mine aggregate 185,516,000 tons @ 0.018 opt Au proven+probable. (was 156,234,000 tons @ 0.018 opt Au proven+probable) *2008 Annual Report*

Barrick Gold Corp. announced that reserves at the Ruby Hill Mine aggregate 18,844,000 tons @ 0.044 opt Au proven+probable. (was 18,763,000 tons @ 0.050 opt Au proven+probable) *2008 Annual Report*

Barrick Gold Corp.(33%) announced that reserves at the Marigold Mine aggregate 76,386,000 tons @ 0.020 opt Au proven+probable. (was 93,318,000 tons @ 0.020 opt Au proven+probable) *2008 Annual Report*

Barrick Gold Corp.(60%) announced that total resources at the South Arturo Project aggregate 36,856,700 tons @ 0.045 opt Au. (was 17,928,300 tons @ 0.070 opt Au) *2008 Annual Report*

U.S. Gold Corp. announced that recent drill results at the Gold Bar/West Gold Pick Project include 150-300 feet @ 0.085 opt Au (GB48); 370-455 feet @ 0.040 opt Au (GB57); 435-495 feet @ 0.079 opt Au (GB59) and 220-275 feet @ 0.038 opt Au (GB62). *Press Release: September 9*

U.S. Gold Corp. announced that recent drill results at the Gold Bar/East Gold Ridge Project include 245-315 feet @ 0.027 opt Au (GB37); 310-340 feet @ 0.041 opt Au (GB41) and 270-280 feet @ 0.028 opt Au (GB45). *Press Release: September 9*

U.S. Gold Corp. announced that recent drill results at the Gold Bar/East Gold Pick Project include 630-650 feet @ 0.031 opt Au (GB21); 335-365 feet @ 0.036 opt Au (GB23); 535-600 feet @ 0.033 opt Au (GB25) and 465-570 feet @ 0.070 opt Au (GB68). *Press Release: September 9*

Paramount Gold + Silver Corp. and Klondex Mines Ltd. announced that they terminated their merger discussions. *Press Release: September 24*

Max Resource Corp. announced that it acquired an option to earn a 100% interest in the Table Top Property from Energex LLC. for \$5,000 cash and escalating payments up to a maximum of \$50,000/year. *Press Release: August 31*

PacMag Metals Ltd. announced that recent drill results at the Shamrock Project include 57.9-67.1 meters @ 1.23% Cu (SH0901); 68-90.42 meters @ 1.08% Cu (SH0903); 11.2-21.3 meters @ 0.84% Cu (SH0905) and 91-111 meters @ 1.03% Cu (SH0906). *Press Release: September 1*

Evolving Gold Corp. announced that recent drill results at the Carlin Project include 858-893.1 meters @ 0.035 opt Au (CAR02); 914.4-925.1 meters @ 0.029 opt Au (CAR02) and 1,420.4-1,443.2 meters @ 0.032 opt Au (CAR02). *Press Release: September 10*

Bravo Venture Group Inc. announced that it would transfer its Nevada property interests into a new company called Bravada Gold Corp. *Press Release: September 22*

Fronteer Development Group Inc.(51%) announced that recent drill results at the Long Canyon Project include 63.1-68.6 meters @ 0.116 opt Au (LC261C); 98.5-104 meters @ 0.062 opt Au (LC263C); 57.3-73.6 meters @ 0.049 opt Au (LC269C) and 131.7-139.3 meters @ 0.034 opt Au (LC270C). (resource = 5,288,800 tons @ 0.069 opt Au indicated) *Press Release: September 17*

Yellowcake Mining Inc. announced that it acquired an option to earn a 70% interest in the Trinity Silver Property from AuEx Ventures Inc. for \$500,000 cash and \$5,000,000 in exploration expenditures over 6 years. (resource = 1,000,000 tons @ 5.25 opt Ag inferred) *Press Release: September 1*

Letters To The Editor

The following is a letter to the editors of the GSN newsletter written by two GSN members. Its content does not necessarily reflect the views of GSN. GSN supports the publishing of viewpoints of its membership as they pertain to timely issues in the geological sciences and especially, Nevada geology. GSN reserves the exclusive right to decide material suitable for publication in its newsletter.

LOOMING CARBON DISASTER

The government is proposing a massive carbon cap and trade program to control CO₂ emissions and thereby control global warming. Not only would this significantly increase the cost of everyone's energy, at the worst possible time, but be absolutely ineffective in achieving its climate objective, because CO₂ is probably not a major driver of climate change.

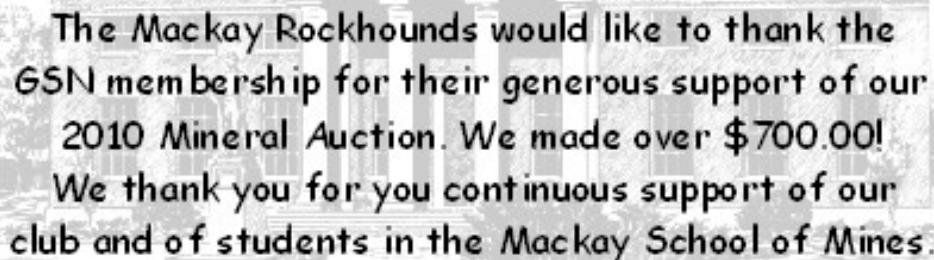
The absorption curves of energy incident upon the Earth from the Sun show that the overwhelming molecule absorbing energy is water vapor. CO₂ is a very small contributor and anthropogenic CO₂ is a miniscule effect that is dwarfed by much larger contributors such as water, sun activity, and natural CO₂ from the geologic environment or exsolution from the oceans during natural warming trends. NASA prior to launching a CO₂ monitoring satellite that failed to launch earlier this year, stated that they did not know where 60% of the CO₂ on earth went. As geoscientists we have an interest in the role of CO₂ and how much is produced by geologic systems. On the USGS website a few years back they stated that Mammoth Mountain in California produced 1500 tons of CO₂ daily. This is one dacite dome. The science behind *some* of the atmospheric modeling is first rate, however the input to the models is poorly constrained. Thousands of scientists with backgrounds relevant to this problem will support this and question the validity of the anthropogenic CO₂ model.

There are real and huge problems related to climate change, our dependence on foreign oil, and the need to improve our sources and efficiency of energy use, but kidding ourselves that by reducing CO₂ output we can solve any of these will be disastrous. There are a number of sources of objective science that lay out the natural causes of climate change and the fallacies of the anthropogenic CO₂ hypothesis. "Unstoppable Global Warming" by Singer & Avery, 2007; "Nature, Not Human Activity, Rules the Climate" by NIPCC 2008, Singer ed.; and the online talks by distinguished speakers at the recent International Conferences on Climate Change held in New York and Washington, which are available at www.heartland.org. They lay out, we think quite credibly, the following: As measured by ice cores in Antarctica and Greenland, CO₂ increases followed intra-glacial temperature increases over the past 240,000 years; human activity cannot explain the major temperature cycles over the past 1,500 years; the climate modelers have dominated the discussion but fail to explain this observational history or solar input on cloud formation, and their greenhouse model atmospheric temperature profiles do not agree with observed profiles.

The political forces that influenced the United Nations Intergovernmental Panel on Climate Change (IPCC) and continue to drive the global climate agenda have been amazingly effective in convincing politicians to commit huge programs on their premise, and stifling scientific debate with an aura of political correctness. Nowhere have we been able to find any rebuttal or even discussion of these observational arguments in the mainstream media. Surely if the case for anthropogenic climate change is as strong as proponents say it is, there should be no problem in refuting these arguments.

Neither you nor we are competent to fully judge the arguments, but we can insist that this issue is not stifled as politically incorrect, and that our representatives in Washington make sure they access the full scientific story before enacting disastrous distortions of our national economy.

Lewis B. Gustafson
Richard Bedell



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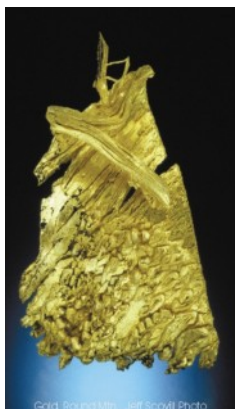
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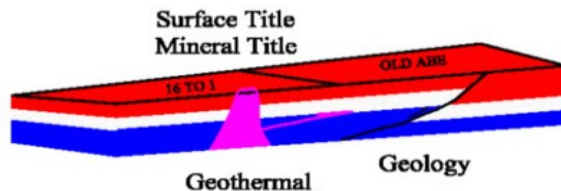
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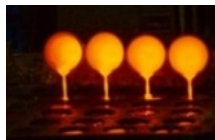
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