

# GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512  
(775) 323-3500 - Hours Monday -- Friday 8-4  
Website: [www.gsnv.org](http://www.gsnv.org) • E-mail: [gsn@gsnv.org](mailto:gsn@gsnv.org)



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*Mark  
Your  
Calendar*

## CALENDAR OF GSN EVENTS

The G.S.N. Office will be closed March 5-8, 2012 so Laura can attend the PDAC Convention in Toronto.

Please stop by the Nevada Room to visit on March 6th!

**Mar 14, 2012 WINNEMUCCA CHAPTER (Every 2nd Wednesday of the month)**  
**Wednesday** The monthly meeting will be held at the Martin Hotel, 94 West Railroad St. Drinks and Appetizers @ 6:30 PM, Talk @ 7:00 PM. **SPEAKER: Hugh de Souza, SGS Mineral Services. Title: "Use of automated mineralogy for identification of multi-commodity indicator minerals"** (see abstract on pg. 5). **Sponsor for the evening is TonaTec Exploration, LLC.** For more info. contact Erin Gray @ 775-635-6420.

**Mar 15, 2012 ELKO CHAPTER (Every 3rd Thursday of the month)**  
**Thursday** The monthly meeting will be held at the Western Folk Life Center, 501 Railroad St. Refreshments at 6:00 PM, Talk at 7:00 PM. Speaker: TBA. For more information contact Jared Townsend at [jtownsend@barrick.com](mailto:jtownsend@barrick.com); or Doug Eck, at [deck@barrick.com](mailto:deck@barrick.com).

**Mar 16, 2012 GSN MEMBERSHIP MEETING (Every 3rd Friday of the month)**  
**Friday** The monthly meeting will be held at the Reno Elks Lodge, 597 Kumble Lane, Reno. Drinks at 6:00 PM, Dinner at 7:00 PM, Talk at 8:00 PM. Our Speaker is **Christopher Henry, Nevada Bureau of Mines & Geology. Title: "Mesozoic-Cenozoic Magmatism and Mineralization in the Greater Cortez Area: An Example of NBMG Framework Studies"** (see abstract on page 3). Sponsor for the evening will be: **ENVIROSCIENTISTS, INC.** Dinner reservations must be made by NOON Thursday, Mar. 15th. Contact Laura Ruud at (775) 323-3500 or e-mail [gsn@gsnv.org](mailto:gsn@gsnv.org) for reservations.

**Mar 30, 2012 SOUTHERN NEVADA CHAPTER (Every Last Thursday of the month)**  
**Thursday** 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. **Speaker TBA.** For more information contact R. Paul Bowen, 702-247-7765.

## G.S.N. MARCH 2012 MEETING SPONSOR



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## **FROM THE PRESIDENT**

**William Howald, G.S.N. President 2011—2012**

Dear GSN Members:

I'd like to thank David Arbonies for the excellent discussion on the Cortez Hills Lower Zone, and Barrick Gold for their commitment to further the geologic understanding of ore deposits in the Cortez area. Dave's presentation shows the ability of Nevada's Carlin districts to produce world-class gold deposits and the Cortez District's immense upside potential. The Cortez district poured its 10-millionth ounce in August 2005, and I believe with more exploration drilling, the district will continue to deliver new deposits with potential to become the next 100-million ounce trend in Nevada. In February, Barrick announced the Red Hills and Goldrush deposits have doubled their resource inventory since September 2011 from 3.5 million ounces of gold to 7 million ounces of gold. So it's well on its way!

The poster session was a great addition to our February meeting; there were seven posters presented. The posters fostered dialogue, discussion, and a lot of beer drinking since the hosted bar reached its limit around 7pm. Thank you CGS for hosting the bar. Mary Stollenwerk, Joe Laravie, and George Burke deserve kudos for contributing and discussing their corporate posters. Honorable mention goes to Chris Ionnakis for knowing that an electron microscope makes things look bigger (or is it bigger)! A special thanks goes to all the student presenters for their time, effort and thought provoking topics. The student posters were so good, the official GSN judges decided to award each student presenter with \$50. Way to go Robbie Anderson, Betsy Crosby-Ireland, Wes Sherlock, and Reid Yano!

Our March speaker is Chris Henry of the Nevada Bureau of Mines and Geology, and the title of his presentation is "Mesozoic-Cenozoic Magmatism and Mineralization in the Greater Cortez Area: An Example of NBMG Framework Studies". Chris' discussion should give us a better view of the role of magmatism in the Cortez area and perhaps some insight into its importance to the Cortez gold deposits.

No something a little lighter. After seeing a snippet of the Westminster Kennel Club dog show recently on television, I decided there was a category of dog missing from the event – the everyday field dog. Almost every geologist has one special dog that goes to the field with him/her on a daily basis. I've even met people with two dogs that get alternate turns at going and enjoying the field with their master. I am also grateful for the Mary Stollenwerk's dog, Mandi, who quadra-pawedly saved the spring 2011 field trip from disaster. I had a very smart field dog that went everywhere with me when I was doing geology in Nevada; unfortunately, she passed away several years ago, but the stories still live on.

I remember one fall afternoon in 1991 when the Pipeline deposit was being drilled. There was every drill rig known to man drilling the deposit in Crescent Valley. Each geologist was assigned to a core rig that he or she made the rounds to every day and sometimes at night depending on what depth the drill was at.

In addition, there were several reverse circulation drills operating and completing pre-collars for the core drills. One day around 11 am, after completing my trip to my drill core rigs, I returned back to the old Gold Acres carbon plant which had been transformed in

to our core logging facility at the time. I hadn't noticed, but my dog Montana left the core facility and was roaming amongst the drill rigs. Apparently, one of the RD10 pre-collar drills had a fried chicken lunch planned that could be smelled for miles away – if you are a dog.

Now Montana was a beautiful husky-wolf cross that had famous ancestors or so I was told. Her grandfather was the wolf in "The Journey Of Natty Gann" so she had celebrity potential.

Now apparently "Tana" had smelled the fried chicken for some time and had been scheming about how to get a delicious chicken lunch – cooked rather than the usual raw chickens that she chased and caught around the famous Flame bar. So unbeknownst to me, she was off trying to find a way to get the drillers away from the fried chicken long enough to get her fair share. Bold problems need bold solutions. Tana spotted a small Igloo cooler belonging to the helper near the driller's shiny bright red Eklund pick up truck. Grabbing the cooler with her mouth she slowly dragged it out in the sagebrush trying to get a driller's, helper's or sampler's attention, and she did. The drill crew shut down the drill and began to slowly approach her and with every step toward Tana, she dragged the cooler farther out in the sagebrush.

Finally, she had the crew out where she wanted them and could make her move. The drill crew got closer and closer until she dropped the cooler and ran as fast as her sleek grey and white legs could take her. Quickly she headed toward the fried chicken sitting on the bright red hood of the drillers pick up truck, jumped up and knocked the pan of chicken off the hood and grabbed as many pieces as she could fit in her mouth before the drillers caught her – success.

I'm told the drillers chased her around the drill pattern trying to get the thief -- to no avail. About noon, a very upset and distraught driller, helper, and sampler arrived at the core shed demanding to know who owned the despicable husky that stole the fried chicken lunch. Timidly, I came forward as the owner of the rascal and asked what had happened. It was all I could do to not burst out laughing hearing the story. My colleagues in the core shack were rolling on the floor hysterically. Drinks at the Flame - \$20; three chicken dinners - \$40, knowing your field dog is the smartest one roaming the drill pattern – priceless!

A mile high, a mile deep



**Thanks to CGS, INC.**  
**For Hosting the February 17, 2012 Meeting!**

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# *GSN March 16, 2012 Membership Meeting*

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

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](mailto:gsn@gsnv.org) by **NOON on Thursday, March 15, 2012.**  
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.**

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## **“Mesozoic-Cenozoic Magmatism and Mineralization in the Greater Cortez Area: An Example of NBMG Framework Studies”**

**Chris Henry and John Muntean (Nevada Bureau of Mines and Geology)  
David John and Joe Colgan (US Geological Survey)**

### **Abstract**

NBMG and collaborators are studying major areas of mineralization to understand the basic geology that led to the mineralization, with the intent that others can use this information to better explore for more deposits. Our work is based on geologic mapping, integrated with structural analysis, geochemistry, geochronology, alteration studies, and lots more.

The greater Cortez part of the Battle Mountain – Eureka trend, including the Cortez and northern Shoshone and Toiyabe Ranges, has undergone multiple episodes of Jurassic, Cretaceous, Miocene, and especially Eocene magmatism and mineralization. The major Jurassic episode was emplacement of the composite Mill Canyon granodiorite – quartz monzonite and related lamprophyre and quartz porphyry dikes.  $^{40}\text{Ar}/^{39}\text{Ar}$  and U-Pb dating indicates intrusion occurred over several million years at ~160 Ma. The major Cretaceous episode was emplacement at 104 Ma of two quartz monzonites, neither of which crops out – the Gold Acres body just west of Pipeline and a similar intrusion in a drill hole ~4km west of Cortez Hills. Both intrusions have a wide metamorphic aureole.

Multiple episodes of mostly silicic to intermediate magmatism began about 40 Ma and continued at least to 32 Ma. Intrusion was probably nearly continuous over this time, but associated volcanism was more limited. Rocks of some igneous episodes are not exposed but are inferred from indirect evidence. Mineralization is unequivocally associated with episodes at about 40-39 Ma (Hilltop, Tenabo) and 35.7 Ma (Cortez Hills, Tenabo?).

Granodiorite stocks intruded at 39.5 Ma at Granite Mountain, Hilltop, and Tenabo. A similar stock probably underlies the Cortez area, based on a single dike outcrop and the presence of 39-40 Ma zircons in younger Eocene igneous rocks. Published ReOs dates on molybdenite at Hilltop and Tenabo and our  $^{40}\text{Ar}/^{39}\text{Ar}$  dates on sericite near Hilltop and sericite and adularia at Tenabo show that some mineralization was contemporaneous with these intrusions.

The big event was intrusion of abundant, 35.7-35.8 Ma rhyolite dikes, centered around Cortez Hills, but continuing in a north-northwest zone from at least Tenabo on the north to the north end of the Simpson Park Mts on the south. This belt of rhyolite dikes requires one or more large plutons to have fed them. The dikes at Cortez Hills were contemporaneous with mineralization but are generally not ore. They were unreactive and, probably most importantly, commonly had glassy margins that quickly altered to montmorillonite making them impermeable to hydrothermal fluids. However, some dikes contain marcasite, pyrite, and locally arsenian pyrite, orpiment, and realgar. Mafic minerals and feldspars are commonly altered to clay, mainly montmorillonite but locally illite and kaolinite. The dikes at Tenabo and rhyolite domes in the Simpson Park Mts are indistinguishable in phenocrysts, composition, and age with the dikes at Cortez Hills. Whether they are associated with similar mineralization remains to be seen.

# Outstanding Nevada geologist to lead the Nevada Bureau of Mines and Geology

## JIM FAULDS NEW STATE GEOLOGIST & DIRECTOR OF THE N.B.M.G



In southern Oregon

Dr. James E. Faulds will be replacing Dr. Jonathan G. Price as State Geologist and Director of the Nevada Bureau of Mines and Geology (NBMG) at the University of Nevada, Reno (UNR) when Jon retires at the end of June 2012. Between now and then, Jim and Jon will be sharing duties of the position, as we transition to Jim's leadership.

Jim, who has been with NBMG since 1997, is an expert in structural geology, tectonics, and geothermal systems. He has published widely on extensional and strike-slip tectonics, nonmarine salt deposits, and structural controls on geothermal systems, including relations between current geothermal activity and young epithermal mineral deposits. He has mapped dozens of quadrangles in Nevada, including some in the Searchlight mining district in southern Nevada, the Carlin trend, the Walker Lane, and several known geothermal resource areas. His geothermal research has been instrumental in developing more sophisticated exploration strategies for geothermal systems. He has also taught courses in structural geology, tectonics, geothermal exploration, and field geology, including serving as Director of UNR's geology field camp for 5 years. He has served as advisor for 14 graduate students while at UNR. He is also the current President of the Nevada Petroleum Society.



The Austrian Alps



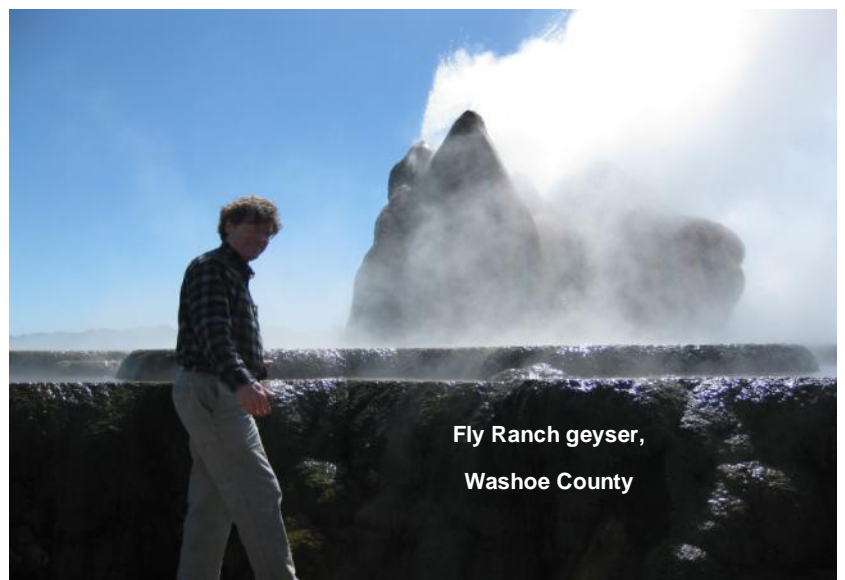
In the Sierra

Jim earned his B.S. (with highest honors) at the University of Montana, his M.S. at the University of Arizona, and his Ph.D. at the University of New Mexico. He held postdoctoral research positions at the University of Nevada, Las Vegas and at the University of Southern California and was on the faculty at the University of Iowa before joining NBMG.

Dr. Price can be credited with greatly enhancing the NBMG in his 24 years of stewardship and developing it into one of the best state geological surveys in the nation. Our understanding of many facets of Nevada geology has been greatly accelerated under Dr. Price's leadership. Jon will continue as a member of the Bureau with emeritus status.

Please join us in welcoming Jim to his new roles as the NBMG Director and the State Geologist of Nevada.

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Fly Ranch geyser,  
Washoe County

## G.S.N. WINNEMUCCA CHAPTER MEETING March 14, 2012

### “Use of automated mineralogy for identification of multi-commodity indicator minerals”

Hugh de Souza

SGS Mineral Services, Lakefield, ON, K0L 2H0

The success of the indicator mineral surveys in identifying diamond bearing kimberlites be it in glacial or stream sediments has led to many attempts to use this approach for other commodities. In the case of gold deposits, the use of gold grains as indicators has had some success. For other commodities the success rate has not been as good. In part the reason has been that the indicator minerals for a range of mineral deposits such as metamorphosed VMS deposits, skarns, magmatic Ni-Cu massive sulphides, or copper porphyries, encompass a large range of minerals that are not easily selected even when limited to grains larger than 250 um. Proportionally, a greater percentage of the indicator mineral population occurs in the finer fractions that are difficult to pick manually. The answer to this dilemma is to use scanning electron-beam (SEM) technologies for automated identification of minerals.

In particular, development of QEMSCAN technology has simplified indicator mineral selection by automating the identification of minerals in heavy mineral concentrates. The finest material can now be examined for their full mineral content yielding information such as indicator mineral abundances, mineral mass distribution or particle shapes or sizes. It is even possible to perform this on a split of the sample submitted for geochemical analysis allowing correlations between the mineral population and the geochemical data.

#### WINNEMUCCA CHAPTER MARCH 2012 MEETING SPONSOR



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## ROCK TALK

The purpose of the “Rock Talk” section is to provide a forum for GSN members to express opinions and geological experiences that would be of interest to members. Topics should be related to geology, mining, and exploration, and could include travel and field experiences or other items of interest to geologists.

The decision to publish each article will be made by the Executive Committee. Articles are limited to 250 words and interesting photos will also be considered for publication. The writer must include his/her name, telephone number, and email address. Articles may be edited for clarity. Articles should be submitted to [gsn@gsnv.org](mailto:gsn@gsnv.org) with “Rock Talk” in the subject line. They can also be mailed or FAXED to the GSN office.

GSN hopes that this will provide a forum for communicating interesting items to the more than 1,100 members worldwide. Please submit your article today!

# GSN Spring 2012 Field Trip – Copper, Silver and Gold in the Walker Lane

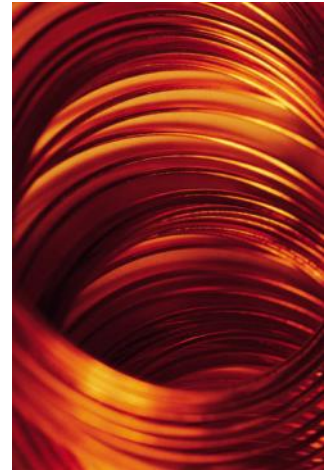
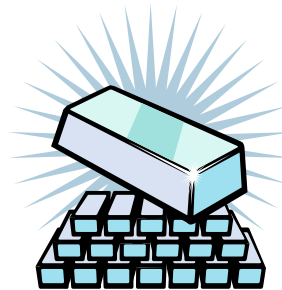
May 4, 5 and 6<sup>th</sup> – Friday afternoon through Sunday evening

Members,

The GSN spring field trip is starting to shape up. The tentative plans are for a look at copper in the Yerington area, gold and silver in the Tonopah District.

The dates for the trip are set; however, the details including the costs are still in the works.

The details will be sent out later in March.



## PROPOSED CHANGES TO THE G.S.N. CONSTITUTION



Dear GSN Members,

The Board of Directors has proposed the following changes to the GSN Constitution. Suggestions for amendments to 2 articles (green font is a deleted section, gold font is an added section).

This change will be included on the April Ballot along with the slate of officers for 2012-2013.

Article VI. Dues, Section 1: Members shall be considered [~~delete in good standing~~] **current when dues have been paid for the current year.**

Article IV. Membership, Section 2: Members shall be persons whose professional activities or whose interests are in keeping with the Objectives of the GSN **and who are considered current, as defined in Article VI, Section 1.**



# Thank you to our FEBRUARY donors!

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## OBITUARIES



### Douglas James Bruha (1956-2012)

Doug was born on 7/22/56 to Richard Anton and Mildred Bruha in Lacrosse, Wisconsin. He grew up in Minneapolis, Minnesota, but he and his family spent most summers traveling to the southwest, so early on he developed a love for Colorado, Utah and Nevada. He studied geology in college, and then moved to Reno, NV where he earned his master's degree in exploration geology from the Mackay School of Mines at the University of Nevada, Reno. In the early 80's he spent several years working at Jack Creek, north of Elko, and developed a love for this area.

He married Lynn Greenhouse when she was still in medical school, and the only vacations they could afford were camping trips, so they started coming to Lamoille in the summer time on their short breaks. They then found a beautiful plot of land in Lamoille, which they purchased following Lynn's medical school graduation, and moved here in 1995. At that time Doug decided to devote his time to his great passion, landscape photography. He did that successfully for years, and many of his photographs are local favorites, depicting the beauties of Lamoille Canyon and the surrounding areas through the eyes of someone who loved all of it, and had a natural eye for light and angle.

During the last ten years he has also been the office manager of Pinion Road Clinic, which he saved from bankruptcy and turned into a thriving business. He loved all of nature and made friends wherever he went. He was kind and funny, and had a deep understanding of what is important in life. Everybody loved Doug.

He passed away suddenly on 1/19/12 after a short fight with a terminal illness. He leaves behind his father, Richard, his wife and best friend Lynn, and his two cats, Dicken and Carressa. He also leaves scores of nephews and nieces, brothers - and sisters-in-law, and cousins and many many friends, all of whom are devastated by his loss. He will be sorely missed. In lieu of cards, donations to Horizon Hospice would be much appreciated.

# Activity Update

Mike Brady, January 2012

[www.activityupdate.com](http://www.activityupdate.com)

## NEVADA

Western Lithium Corp. announced that based on a recently completed prefeasibility study for the Kings Valley Project, the property has a net pre-tax present value of \$552,000,000 based on a \$6,000/tonne price for lithium carbonate. (resource = 25,500,000 tonnes @ 0.40% Li measured+indicated) *N.M.*: January 2

Quaterra Resources Inc. announced that based on recent drill results at the Yerington Pit, resources aggregate 65,270,000 tonnes @ 0.30% Cu measured+indicated and 58,100,000 tonnes @ 0.25% Cu inferred. (was 89,900,000 tonnes @ 0.36% Cu inferred) *Press Release*: January 5

Premier Gold Mines Ltd. and Newmont Mining Corp. announced that they would combine their respective interests in the Rain/Saddle sub district into a Premier(55%)/Newmont(45%) joint-venture. Premier announced that it would contribute \$20,000,000 in funding for the project. *Press Release*: January 26

Rye Patch Gold Corp. announced that it staked additional mining claims south and west of the Rochester Mine. *Press Release*: January 24

Scorpio Gold Corp.(70%) announced that recent drill results at the Mineral Ridge Project include 0-6.1 meters @ 1.08 gpt Au (MR11300); 47.26-53.55 meters @ 1.27 gpt Au (MR11302); 32.01-38.11 meters @ 0.94 gpt Au (MR11307) and 36.59-44.21 meters @ 2.78 gpt Au (MR11313). (resource = 4,230,000 tonnes @ 1.47 gpt Au indicated) *Press Release*: January 17

Yukon-Nevada Gold Corp. announced that based on recent drill results at the Jerritt Canyon Mine, resources aggregate 8,683,500 tonnes @ 7.95 gpt Au measured+indicated and 76,900 tonnes @ 2.83 gpt Au inferred underground. Open pit resources aggregate 504,800 tonnes @ 4.78 gpt Au measured+indicated and 1,836,000 tonnes @ 6.52 gpt Au inferred. (was 10,629,000 tonnes @ 7.41 gpt Au measured+indicated and 4,082,000 tonnes @ 6.76 gpt Au inf

ferred) *Press Release*: January 6

Yukon-Nevada Gold Corp. announced that recent drill results at the East Mahala Project include 271.45-283.65 meters @ 3.53 gpt Au (SH-1206); 291.27-306.52 meters @ 4.77 gpt Au (EM-121) and 266.87-269.92 meters @ 5.49 gpt Au (EM-126). *Press Release*: January 11

Timberline Resources Corp. announced that recent drill results at the Lookout Mountain Project include 79.2-96.0 meters @ 0.34 gpt Au (BHSE-108); 42.7-64.0 meters @ 0.31 gpt Au (BHSE-115); 73.2-96.1 meters @ 0.75 gpt Au (BHSE-124) and 85.3-109.7 meters @ 0.72 gpt Au (BHSE-121). (resource = 12,374,000 tonnes @ 0.73 gpt Au measured+indicated) *Press Release*: January 17

Nevada Copper Corp. announced that recent drill results at the Pumpkin Hollow/North Project include 237.7-249.9 meters @ 1.77% Cu, 0.18 gpt Au (NC11-21); 185.6-274.3 meters @ 0.77% Cu, 0.06 gpt Au (NC11-22); 221.0-248.4 meters @ 0.43% Cu, 0.07 gpt Au (NC11-26) and 176.2-269.8 meters @ 1.39% Cu, 0.11 gpt Au (NC11-27). (resource = 159,900,000 tonnes @ 0.59% Cu, 0.10 gpt Au measured) *Press Release*: January 9

Laurion Mineral Exploration Inc. announced that recent drill results at the Bell Mountain Project include 54.9-61.0 meters @ 0.53 gpt Au, 14.2 gpt Ag (SPX-2); 4.57-18.3 meters @ 0.47 gpt Au, 8.6 gpt Ag (SPX-3) and 18.3-30.5 meters @ 0.36 gpt Au, 8.5 gpt Ag (SPX-4). (resource = 9,761,000 tonnes @ 0.51 gpt Au, 18 gpt Ag measured+indicated) *Press Release*: January 26

Allied Nevada Gold Corp. announced that recent drill results at the Hycroft Mine include 82-105 meters @ 0.82 gpt Au, 18.7 gpt Ag (4265); 75-158 meters @ 0.90 gpt Au, 17.4 gpt Ag (4199); 0-41 meters @ 0.91 gpt Au, 24.0 gpt Ag (4227) and 81-151 meters @ 0.72 gpt Au, 22.8 gpt Ag (4243). (resource = 1,396,400,000 tonnes @ 0.37 gpt Au, 13 gpt Ag measured+indicated) *Press Release*: January 9

**Thanks to  
GEOTEMPS, INC.  
for sponsoring the  
Elko Chapter meeting in February!**

**Thanks to  
LEGARZA DRILLING  
for sponsoring the  
Winnemucca Chapter meeting  
in February!**



## NEWS FROM THE GSN FOUNDATION

Contributions from the membership and friends of the Foundation this FY total more than \$21,000, including a gift of \$10,000 from our friend Bill Wilson. Thank you to all who contribute, and continue to contribute, to the Foundation. Your support is what makes our programs work. For those not familiar with Bill Wilson, he was part of the original group that staked the claims resulting in the original Cortez gold mine. As part of the deal with a company that later became Placer Dome, Bill received an area of interest that incorporates much of the central Battle Mountain-Eureka Trend. As a result Idaho Resources receives royalties on much of Barrick's production from Pipeline/Cortez Hills and nearby properties.

One more NBMG map is being supported by the Foundation through the funding of the cartography costs to complete production of the document. The new map is "Preliminary surficial geologic map along the northwest Lone Mountain, and Weepah Hills pediments, Esmeralda County, Nevada" by Jeffery S. Hoeff.

Finally, the Foundation is again offering grants to assist with tuition for Field Camp courses. Students will find the applications on our website.

[http://www.gsnv.org/FieldCampApplication\\_2012.pdf](http://www.gsnv.org/FieldCampApplication_2012.pdf)

Don't delay in applying since the deadline is March 16th.

Roger C. Steininger,

Chair, GSN Foundation



### WOMEN'S MINING COALITION 20TH ANNUAL FLY-IN TO WASHINGTON D.C.

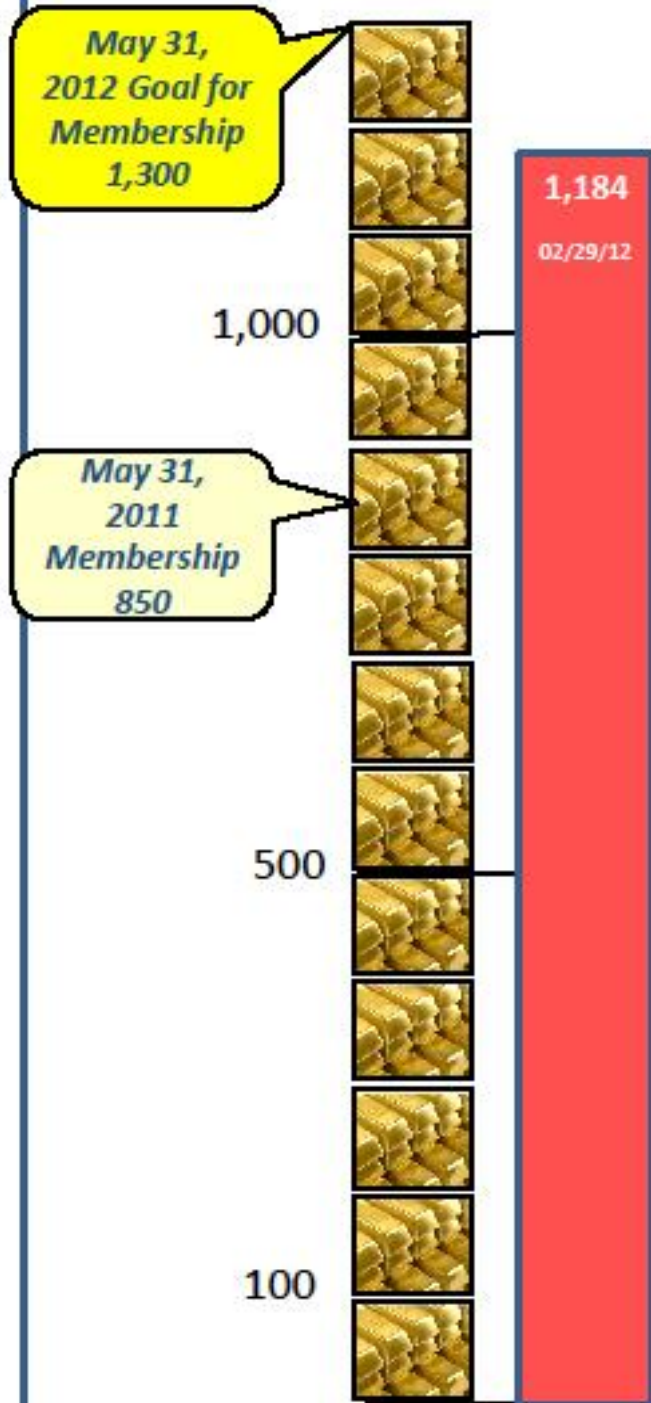
**Please join the Women's Mining Coalition for the 20<sup>th</sup> annual Fly-In to Washington D.C. on May 6-11, 2012. This is a great opportunity for the members of WMC to introduce ourselves, our industry, and our organization to the new and returning members of Congress: who we are, what we do, and a chance to make new contacts.**

**WMC's goals during the Fly-In include the following: raise awareness of the mission of WMC and its members; discuss issues of importance to the mining industry with new and returning members of Congress and/or their staff; and showcase how women benefit from a healthy domestic mining industry.**

**WMC is soliciting sponsorship for costs related to participants and Congressional receptions, printing-related expenses, and staff expenses.**

**If you or your company is interested in becoming a sponsor or if you would like more information, including a tentative itinerary, email Lynne Volpi, WMC Coordinator, [lvolpi@frontiernet.net](mailto:lvolpi@frontiernet.net).**

## Goal for 2012



## Geological Society of Nevada Membership Drive

THANK YOU EVERYONE FOR  
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- Monthly Dinners & Speakers
- Networking/contacts
- Newsletters: 10 per year
- Fall and Spring Field Trips





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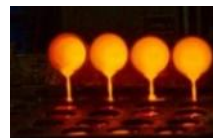
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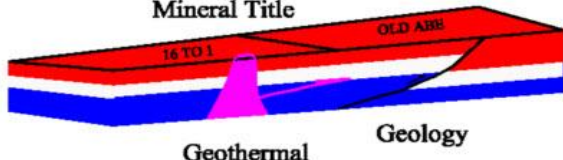


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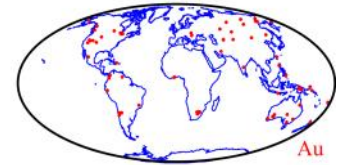


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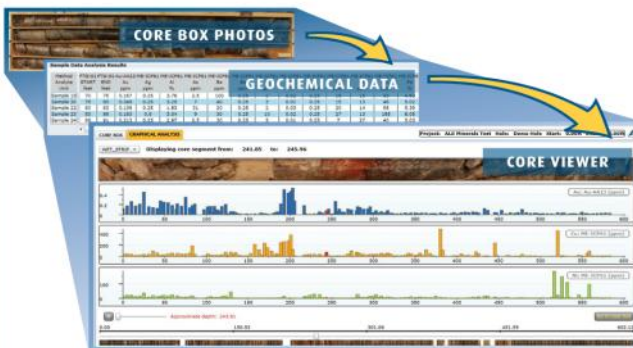
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