April 2015, Vol. 31, No. 4

Published monthly except June and July

CALENDAR OF GSN EVENTS

Apr. 2, 2015  
Thursday  
SO. NEVADA CHAPTER—(1st Thursday of the Month)  
The So. NV Chapter meeting being held at the Las Vegas Natural History Museum, 900 Las Vegas Blvd. North, 5:30 p.m.  
Speaker: Paul Bowen, R.P. Bowen Engineering Inc.  
Title: “When Things Go Wrong in an Exploration Program, What Do You Do?”.  
Food & Drinks Sponsor: R.P. Bowen Engineering Inc.  
Please contact Josh Bonde for more information  
Joshua.bonde@unlv.edu.  
Details pg. 7.

Apr. 15, 2015  
Wednesday  
NOTE CHANGE!!!  
WINNEMUCCA CHAPTER MEETING (this month only—3rd Wednesday)  
The meeting will be held at the Martin Hotel, 94 W. Railroad St.  
Drinks at 6 pm, Appetizers at 6:30 pm, Talk at 7:00 pm.  
Speaker: Andy Wallace, Cordex.  
Title: ““Early” Days of Exploration in the Winnemucca Region, Humboldt County, Nevada, from 1969-1995, and a look to the future.”  
Food & Drinks Sponsor: GEOTEMPS INC..  
Please contact Pat Donovan at  
pat.donovan@newmont.com for more information.  
See page 8 for details.

Apr. 16, 2015  
Thursday  
ELKO CHAPTER MEETING (3rd Thursday of the Month)  
The meeting will be held at the Western Folklife Center, 501 Railroad St., Elko, NV.  
Refreshments & Appetizers at 6 pm, Talk at 7 pm.  
Speaker: Mark Bradley, Barrick Gold.  
Topic: The Discovery of Gold Rush.  
Food & Drinks Sponsored by: GEOTEMPS INC..  
Please contact Jon Powell at  
jon.powell@newmont.com for more information.  
See page 8 for details.

Apr. 17, 2015  
Friday  
GSN Regular Membership Meeting (3rd Friday of the Month)  
The GSN’s monthly meeting & dinner will be held at the Reno Elks Lodge, 597 Kumle Ln., Reno, NV.  
Drinks at 6 pm, Dinner at 7 pm.  
Talk at 7:45 pm (NOTE NEW TIME).  
UNR—MACKAY STUDENT NIGHT.  
Various speakers, poster presenters and topics.  
Drinks Sponsored by: GEOTEMPS, INC..  
Please make dinner reservations with Laura Ruud at the GSN Office, 775-323-3500 or gsn@gsnv.org.  
Dinner cost: $25 each.  
See a list of speakers, posters & topics on page 3.

May 14-23, 2015  
GSN 2015 SYMPOSIUM—“NEW CONCEPTS & DISCOVERIES”  
Register online now for this don’t miss “once every 5 years” Technical Conference put on by volunteers of the GSN.  
REGISTRATION NOW!!  
REGISTRATION FORM ON PAGE 9-10.

G.S.N. APRIL 2015 MEETING SPONSOR

GEO TEMPS INC.
Annual global gold production reached another all-time high in 2014, according to data from the U.S. Geological Survey’s *Mineral Commodity Summaries 2015*. Total production in 2014 was 2,860 tonnes (metric tons). Given that cumulative production from the Carlin trend is approximately 2,500 tonnes, the production trends imply that exploration geos need to find, and miners need to mine, the equivalent of one new Carlin trend each year. As illustrated in the graph below, production (the blue line) in 2014 was 7.4 times that in 1900, and per capita consumption (the red line) increased by a factor of 1.7 over the same period. Historical consumption has fluctuated, however, having reached its all-time high around the beginning of World War II. Global demand has risen in recent years largely because of rising population (the green line).

Nevada continues to be *the place* for gold exploration and mining in the United States, with over 70% of U.S. production in recent years coming from Nevada. The upcoming GSN 2015 Symposium – *New Concepts and Discoveries* – will show us why Nevada continues to be at the forefront. Molly Hunsacker has spearheaded the dedicated volunteers on the Symposium Planning Committee to bring you a superb array of pre- and post-meeting field trips and short courses and an outstanding technical program (starting Monday morning, May 18, and ending at noon on Thursday, May 21). Pre-meeting field trips are designed to allow participants to attend the Society of Economic Geologists Forum on Carlin-like gold deposits on Sunday, May 17. (Cont. on page 6)

**FROM THE PRESIDENT, APRIL 2015**

“Gold continues its rise, and Nevada is at the forefront”

Jon Price, G.S.N. President 2014-2015

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**THANK YOU TO ENVIROSCIENTISTS, INC.**

*for sponsoring the MARCH 20TH MEETING!*
April’s GSN meeting highlights research of some of the graduate students in the Department of Geological Sciences and Engineering at the University of Nevada, Reno. Each student will have a poster on display and will be available for discussion during the happy hour starting at 6:00. After dinner, starting about 7:35 p.m., many of the students will give short (3-minute) PowerPoint presentations summarizing their work. The order of speakers will be:

**Carli Balogh**, *Tertiary Stratigraphy, Alteration Zones, and Precious Metal Deposits in the Patterson Mining District, Sweetwater Mountains, and Comparison to the Bodie Hills, California-Nevada*

**Justin B. Milliard**, *Regional controls on epithermal system formation within an intracontinental rift setting, northern Nevada rift, North-Central Nevada, USA*

**Kyle Basler-Reeder**, *Joint Optimization of Vertical Component Gravity and Seismic P-wave First Arrivals by Simulated Annealing*

**Tyler Hill**, *Time-Space Relationships between Sediment-hosted Gold Mineralization and Intrusion-Related Polymetallic Mineralization at Kinsley Mountain, Nevada*

**Sergey A. Konyshev**, *Geochemistry and Petrography of the Beartrack Mine, Lemhi County, Idaho*

**Steve Howell**, *Spatial and Temporal Evolution of Hydrothermal Fluids of the Round Mountain Gold Deposit*

**Tracy Anderson**, *Supergene Silver Enrichment at the Rochester Mine in Pershing County, Nevada*

In addition, the following students will be presenting posters only:

**Ajeet K Milliard**, *A preview of Igneous Rocks in the Pequop Mountains, Nevada and Implications on Carlin-Type Gold Mineralization*

**Patrick Quillen**, *Time-Space Relationships between Magmatism, Hydrothermal Alteration and Mineralization in the Berlin and Buffaly Canyon Areas of the Union District, Nevada*

**Elizabeth Benge**, *Pilot Study using Elemental Geochemistry as a Means of Discriminating Chert Stratigraphy in the Roberts Mountains Allochthon, Nevada*

**Ryan B. Anderson**, *New apatite and zircon (U-Th)/He constraints on the timing of thrust-related exhumation in the southern Bolivian (21°S) Andes*

The posters will be judged, and prizes will be awarded ($100 for 1st, $75 for 2nd, $50 for third).
On a sunny afternoon in the summer of 1999, I sat by myself beside a small stream high in the Sierra Nevada Mountain Range. Around me in the duff were laid my water bottle, a sleeping bag and sleeping pad, a tarp for shelter and a few bikkie crackers. I was 16 days into a 21 day Outward Bound course, halfway through the mandatory three day solo. As I listened to the muttering of the creek over my shoulder, I reflected on the previous two weeks I had spent mountaineering with a group of eight strangers with whom I had quickly become closer than I could have previously imagined. Never before in my life had I had an experience so physically and emotionally demanding. The wilderness course turned out to be one of the best experiences of my life and it motivated me to embark on outdoor adventures the next three summers in Colorado, Georgia and Washington.

I grew up in Mokelumne Hill, California, a gold rush town in the foothills of the Sierra Nevadas, the same town where my mother had attended elementary school in a one room school house some thirty years before. When I was growing up we had a bigger school, but it still had fewer than a hundred students, the population of the entire town being only about 500 at this time. It was, coincidentally, enough to meet my future husband. I would have never thought then that that dorky, curly haired boy would end up being the person with whom I would one day wish to spend the rest of my life. After we spent a year together in Ms. Streamfellow's fourth/fifth grade combination class, however, he moved on to another school and it would be eleven years before we would meet again.

When my two sisters and I were growing up, the family budget was always pretty tight so camping and backpacking were the natural choices for vacations. We camped on the northern California coast and Yosemite, but the most memorable vacation we took when I was little was a trip to La Paz, Mexico. The five of us loaded up into the '79 Ford F150 pickup with a cab-over camper on the back and began our road trip. For the next month we explored the beaches and hiked in the mountains of southern Baja. The evenings were spent around the campfire on the beach singing Van Morrison's "Moondance" as my dad played his old beat-up guitar.

It was my junior year in high school that I figured out I wanted to be a geologist. That year my high school offered a science course in which the first semester was astronomy and the second semester was geology. I took the class because I was interested in the astronomy portion, but ended up falling in love with geology and the Earth's processes. At that point I had completed two Outward Bound courses, one in California and the other in Colorado and I couldn't get enough of the outdoors. I was surprised by the realization that people actually practiced geology as a career and could be outdoors in the wilderness as part of their job.

When I was applying to colleges I had two criteria: it must have a geology department, and it must be far enough away from Mokelumne Hill that I would not be tempted to come home on the weekends. My grandfather suggested that I apply to Millsaps College, in Jackson, Mississippi. He had worked as a civil rights attorney in Jackson in 1964 and recalled having enjoyed interacting with the staff and students at Millsaps. With a tiny geology department made up of three professors, Millsaps met my two criteria so I applied and ended up attending the following fall. Getting my geology degree at Millsaps was a wonderful experience. The classes were small and I was able to get to know my professors outside of the classroom, even babysitting occasionally for Dr. Harris' two daughters.

The summer after my sophomore year I accompanied one of my geology professors, Dr. Stan Galicki, to Mexico. Millsaps had an archaeological project in Yucatan, and we went down to do some soil sampling on the property. Access on the property was limited so we spent hours bumping around in a Jeep on roads that looked like they had not been used for years. Stan took me to a Mexican market, and to the Mayan Ruins at Chichen Itza and by the end of the trip I wasn't ready to leave Mexico. The culture was so interesting that I decided I had to return. Upon returning to the states, I signed up for a semester abroad. (Cont. on pg. 5)
Ciudad de Guanajuato in the state of Guanajuato, Mexico is where I ended up spending the first semester of my senior year. Unfortunately my Spanish language skills were not good enough to attend any geology courses at the Universidad de Guanajuato, but I did manage to tour many of the old Silver mines upon whose wealth the city was built. I spent my days learning Spanish at the university’s language school and the evenings were all about Salsa dancing!

During my final semester at Millsaps I lived with one of my music professors, Dr. Nash Noble, and her many dogs. Nash is a generous woman who takes in dogs and students. While I lived with Nash, one other student was staying with her. The dog population in the house, however, was a different story. Canine occupancy generally fluctuated between 7 and 10, reaching a peak of 12 when a pregnant dog she took in had a litter of puppies. Each morning around 5 am, I would get a wakeup call from a bunch of howling dogs, ready to take their daily trip to the cemetery. A few times I accompanied Nash on these early morning jaunts. When we arrived at our destination, it was fun to watch all of the dogs piling out of her car like a bunch of clowns. The dogs ranged in size and number of legs. No matter what conditions the dogs may have had (deaf, blind, three-legged, sores that wouldn’t heal) it didn’t matter when they got to run in the tall grass of the cemetery.

After graduation I had no idea what I wanted to do with my geology degree. Unlike many geologists I have met during my career so far, my BS was not in economic geology and at this time I knew practically nothing about the industry of mineral exploration and mining. After hanging around my parents’ house for a few weeks I was desperate to find a job. I applied to be a tour guide at Sutter Gold Mine, a small underground mine about 25 minutes away from my home in Mokelumne Hill. By pure luck, the tour manager, seeing that I had a degree in geology, passed my application to Mark Payne, a geologist who was running a two rig core program in the mine. It was such a relief when Mark called and offered me a job at Sutter. I started out cutting core and eventually worked my way up to logging. The spring after I was hired, Mark took a few of the young folks out to do a little prospecting and showed us how to map an adit. I could not believe they were paying me to be outside exploring.

Sutter is also where I became reacquainted with the man who is now my husband. I was sitting at the lunch table on one of my first days on the job when two guys who looked to be about my age walked in. One of them looked vaguely familiar. He had curly brown hair, a round face... It was Danny from the fourth grade! He had changed a lot since then. He was no longer the dorky kid that I remembered, but had changed to a kind, if not slightly awkward, adult. After a few months of working together Danny and I started going on adventures together after work. He showed me around the back roads of Amador County. We explored old head frames and hydraulic workings, almost always accompanied by a couple of Coors Light tall boys.

After a year and a half at Sutter, the drill program was wrapping up and work was getting slow. Luckily Sutter had just entered into a joint venture on the Santa Teresa project in Baja California with Premier Gold Mines. Having spent time in Mexico and Central America, I was a natural candidate to help set up the new project. We found an old Tortillaría to serve as the core shed and logging facility. The little town of Ojos Negros was in an agricultural area that grew mostly onions. At harvest time the town would fill with transient farm workers and new folks in town would stop by the core shed many times each day wanting to buy some fresh tortillas. They would often appear slightly confused as they peered in through the barred window to see only cinder block core logging tables and stacks of core boxes.

While the Santa Teresa project finished up their drilling program I started working at Premier’s Hardrock project in Northern Ontario. Hardrock was a much faster paced project than I was accustomed to but after a while our team became a well-oiled machine, peaking at 11 drill rigs. Occasionally I would log over a kilometer of core in a single day. Despite the busy schedule we still found time to adopt myriad animals in the time I worked in Geraldton. There was the litter of bunnies that grew from tiny puff balls to full sized rabbits, the duck who would wander in from Lake Kenogamisis, and an assortment of cats and dogs. One of the cats, we called him Fat Billy, was a lazy tomcat that hung around intermittently. Upon his return after a six week disappearance (he was probably lost in the bush) we had to re-name him Skinny William due to the drastic change in his stature. (Cont. on pg. 6)
After three and a half years working in Northern Ontario, I was ready to be a little closer to home. My commute from California to Geraldton, Ontario usually took around 24 hours so the 7.5 hour drive to Premier’s Elko office was much easier. At this time, we were working on the Saddle Project, south of Carlin. The Premier office later moved to Battle Mountain upon the company’s acquisition of interest in the Cove Mine. After I’d been commuting back and forth between Nevada and California for two years, Danny and I decided that it was time to make the move. Danny got a job with IDS and a few months later we bought a house in Spring Creek. As I approach the end of the first year living in Northern Nevada I have begun to settle in to our new home. Though there are not as many trees out here as can be found back home in California, I have really come to appreciate the naked beauty offered by Nevada’s landscape.

President’s Message (Cont. from pg. 2)

John Muntean and Moira Smith, with the help of session organizers, have put together an exciting series of technical sessions, ranging from the newest concepts about the geology and metallogeny of the Great Basin to the detailed descriptions of several recently discovered deposits.

Bill Pennell is leading the editorial and publication efforts hopefully to release the peer-reviewed articles for the symposium volume on CD at the time of the meeting – a first for GSN symposia. The exhibit hall, core shacks, and poster presentations, along with keynote luncheons and evening receptions provide many opportunities for networking and discovering opportunities. The GSN 2015 Symposium promises to continue the fine tradition of being the meeting to attend, if you are interested in mineral exploration or in the geology of Nevada.

Upcoming GSN highlights in Reno include:

- GSN 2015 Symposium, May 14-24, including short courses and field trips.
- Friday, June 12 (starting at 4:00 p.m.) – BBQ at Rancho San Rafael – with a reinstitution of the traditional exploration games of the rock-hammer toss and the gold-pan toss.
- Saturday, June 13 – the GSN Golf Tournament (watch for details from Laura)
- Mid-summer – GSN night at an Aces game
- Late August – the Silver Series lecture and pot-luck dinner

Please note that the GSN membership year begins with our fiscal year, starting June 1. Therefore, pay your dues as soon as possible for the 2015-2016 GSN year, and see the January newsletter for the reasons why signing up for life membership makes sense for nearly everyone.

**Membership Directory Correction**

Sincere apologies to GSN Members Mark Slatten and David Fitch for forgetting to list them as QPs!! I’m very sorry for this error!
UNLV 10th Annual GeoSymposium April 10th and 11th

GeoSymposium is a student-run event designed to provide graduate and undergraduate students from the UNLV Department of Geoscience with a valuable opportunity to present their research in a professional and supportive environment in which they can receive feedback from industry, government, and academic experts.

The symposium will be held on Friday, April 10, at UNLV in the auditorium of the Science and Engineering Building (SEB). Throughout the day, graduate and undergraduate students will present their research through oral and poster presentations, followed by an afternoon award ceremony recognizing them for their research and academic achievements. The day will also include keynote addresses from both Pat Mulroy (Senior Fellow for Climate Adaptation and Environmental Policy at UNLV’s Brookings Mountain West), and Tim Garfield (Chief Research Geoscientist at ExxonMobil). On Saturday, April 11, students will host a field trip to Lake Mead National Recreation Area. To celebrate our 10th Anniversary, there will also be a sightseeing cruise on the lake featuring a guest speaker and catered brunch.

Thanks to the continued generosity of our sponsors and supporters it has been possible to continue running this event without a registration fee for the last 10 years making the experience more meaningful for both students and professionals.

For more information please visit our website at: http://geoscience.unlv.edu/GeoSymposium/index.html

Please contact the GeoSymposium Coordinator with any additional questions: Melisa Bishop bishom1@unlv.nevada.edu

ALL G.S.N. MEMBERS ARE ENCOURAGED TO ATTEND IF YOU ARE IN THE LAS VEGAS AREA!!
GSN WINNEMUCCA CHAPTER MEETING

WEDNESDAY, APRIL 15, 2015 (note 3rd Wednesday this month only!!!)

Location: The MARTIN HOTEL, WINNEMUCCA, NV

Time: Drinks @ 6:00 p.m.; Appetizers @ 6:30 p.m.; Talk @ 7:00 p.m.

Speaker: Andy Wallace, Cordex Exploration

Title: “‘Early’ Days of Exploration in the Winnemucca Region, Humboldt County, Nevada, from 1969-1995, and a look to the future.”

The talk will focus on the early exploration work of Cordex and others out of Winnemucca, and include brief discussions on the Pinson, Preble, Kramer Hill, Florida Canyon, Standard, North Standard, Sulfur, McDermitt Uranium, Dee, Mari-gold, and Stonehouse/Lone Tree discoveries. A few ideas will be advanced for future exploration work in the area, including the necessity for much more "greenfield" exploration than is taking place currently.

Food & Drinks Sponsored by:

GSN ELKO CHAPTER MEETING

THURSDAY, APRIL 16, 2015

Location: The WESTERN FOLKLIFE CENTER, 501 Railroad St., Elko, NV

Time: Refreshments/Appetizers @ 6:00 p.m., Talk @ 7:00 p.m.

Speaker: Mark Bradley, Barrick Gold Corp.

Topic: The Discovery of Gold Rush

Food and Drinks Sponsored by:

Please call Molly Hunsaker at 775-340-0289, or e-mail Andrea Rascati, office manager at: [info@2015gsnsymposium.org](mailto:info@2015gsnsymposium.org).

Registrants for field trips and short courses must register in one of the four categories below, unless otherwise noted by price designation. All Technical Session Registrants will receive a **CD Version of the symposium volumes.**

*Cancellation fees apply. Please see registration website for more information.*

| Early (Registration must be received by February 28, 2015) | Member $325/Non-member $375 | $ N/A |
| Regular (between March 1 and April 30, 2015) | $375 Member/$425 Non-member | $_____ |
| On-Site/Late (after April 30, 2015) | $425 Member/$475 Non-member | $_____ |
| One-Day Technical Session Pass | $212.50 | $_____ |
| Student (must be able to show proof of student status) | $150 | $_____ |
| Exhibits-Only 4-Day Pass (may not attend technical sessions, no Symposium CD) | $75 | $_____ |
| Spouse Pass (may not attend technical sessions, no Symposium CD) | $20/day | $_____ |

**Pre-Meeting Field Trips and Short Courses** (limited number of spaces)

| Field Trip 1 - Introduction to Carlin Gold Deposits Nevada (May 14-16) | $400 | $_____ |
| Field Trip 2 - Epithermal Deposits of Northern Nevada, (May 14-16) | $450 | $_____ |
| Field Trip 3 - Mining for the Non-Geologists: Exploration to Reclamation (May 14-16) | $375* | $_____ |

*Not required to register for the Symposium Technical Program*

| Field Trip 4 - Epithermal Deposits of Central Nevada (May 14-16) | $450 | $_____ |

| Short Course 1 - Ore Reserve Estimates in the Real World (May 15-17) | Registrant $675, Non-Registrant $850, Student $150 | $_____ |
| Short Course 2 - Modern Drilling Systems: The Hardware (May 13-14) | Registrant and Non-Registrant $195, Student $25 | $_____ |
| Short Course 3 - Modern Drilling Fluids: The Software (May 15-16) | Registrant $450, Non-Registrant $550, Student $100 | $_____ |
| Short Course 4 - Great Basin and Cordillera Mining Geophysics (May 16) | Registrant $225, Non-Registrant $350, Student $50 | $_____ |
| Short Course 7 - Analytical Methods in Geochemistry (May 17) | Registrant $225, Non-Registrant $350, Student $50 | $_____ |
| Short Course 10 - Geochemical Data Analysis using ioGAS (May 16) | Registrant $200, Non-Registrant $250, Student $50 | $_____ |

**SUNDAY, MAY 17, 2015 - G.S.N. and Society of Economic Geologists Forum**

**Topic:** “*Carlin-Like Gold Deposits: What Can We Learn Beyond the Known Trends and Nevada?”*  
Symposium Registration not required, but encouraged; **Cost $195.00, Students $100**  

**Keynote Luncheons:**

- **Monday, May 18th** - Chuck Thorman, Keynote Speaker  **Cost $35.00**  
- **Tuesday, May 19th** - Andreas Audéat, Keynote Speaker  **Cost $35.00**  
- **Wednesday, May 20th** - Brent Cook, Keynote Speaker  **Cost $35.00**
REGISTRATION FORM (continued)
Geological Society of Nevada 2015 Symposium
May 14th-23rd, 2015

Post-Meeting Field Trips and Short Courses (limited number of spaces):

Field Trip 5 - The Pequop Trend - Nevada’s Newest “Carlin” Trend (May 21-23) $450
Field Trip 6 - Porphyry-Related Deposits of Nevada (May 21-23) $425
Short Course 6 - Epithermal Deposits: Characteristics and Processes (May 21-23)
Field Trip 7* - The Famous Comstock Gold and Silver District (May 23)
  Registrant $575, Non-Registrant $700, Student $125
  *Will be open to field trip participation only (May 23) in April, 2015. Field Trip Only Cost $100

Short Course 8 - Geometallurgy: Applied Metallurgy for Geologists (May 21-22)
  Registrant $450, Non-Registrant $550, Student $100
Short Course 9 - Leapfrog Modeling for Exploration and Development (May 21-22)
Short Course 11 - Paper to Electrons: Practical GIS for Geoscientists (May 22)
  Registrant $225, Non-Registrant $350, Student $50

Technical Proceedings Volumes:

GSN 2015 Proceedings CD Volume $100* (Shipping included)
  *Free with full symposium registration
GSN 2015 Proceedings Hard Bound Volume Pre-Order Price $200 (To be picked up in Reno)
  *If you do not pick up your proceedings at symposium you will be billed for shipping before you will receive your volume
GSN 2015 Proceedings Hard Bound Volume Pre-Order Price $220 (Mailed to a U.S Address)
  Mail this volume to US address:

DRINK TICKETS: $6.00 each
GSN MEMBERSHIP DUES: $50.00 year

TOTAL DUE: $_______

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To pay by credit card please go to http://www.gsnv.org/2015-symposium to find the registration link. (Please fill out a separate form for your spouse.) Please enclose check/money order, made payable to “GSN Symposium 2015” and mail to GSN 2175 Raggio Pkwy., Reno, NV 89512. Please, no mail submissions after May 8th, 2015.

Hotel rooms at J.A. Nugget Hotel (www.janugget.com), please call 1-800-648-1177 and use the code “GGSN” to get the group reservation rate.
ATTENTION GSN GOLFERS!!

The GSN’s Annual Golf Tournament will be held on Saturday, June 13, 2015. We are pleased to have Bureau Veritas Minerals (formerly Inspectorate & Acme Labs) as the main sponsor for the 6th year in a row! “Shotgun Start” will be at 8:00 a.m. (tentative) at the Washoe Golf Course, Reno, NV.

Registration forms will be available in the May newsletter and will also be sent by email sometime in April.

Members can sign up alone or as a two-, three-, or foursome. Each GSN Member is allowed ONE guest. The Registration fee will include 18 holes of golf, dinner, and drink coupons. The GSN Foundation will be selling Mulligan’s for $5 each with a limit of four per person. The Foundation will also be selling raffle ticket for $5.00 each or 5 for $20.00. We always have great prizes donated for the raffle! All proceeds raised will benefit the GSN Foundation. Please join us for a great time and we thank you in advance for supporting the GSN Foundation.

WE ARE IN NEED OF RAFFLE PRIZES (or cash donations) for the Foundation’s Golf Tourny Raffle. PLEASE CONTACT Eric Ruud at eric.ruud@bureauveritas.com or Cami Prenn at cami@mda.com to donate!

NOTES FROM THE GSN FOUNDATION

Goldcorp, Inc. has joined the Foundation for another year in supporting UNR Field Course scholarship grants. Goldcorp’s $5,000 donation, coupled with Foundation funds, allows us to assist 17 geology/geological engineering majors to attend this required course. Thank you Goldcorp, and the GSN membership, for contributing to the Foundation so that we can maintain field course scholarships as one of our keystone programs.

Over the last 15 years the Foundation has been able to support several important programs. A summary of the totals for the most significant programs are as follows -

K-12 Field Trips- $142,385
UNR Scholarships- $29,000
UNR Field Camp Scholarships-$51,000
UNLV Scholarships-$9,000
Great Basin College Scholarships-$5,000
NBMG Mapping Program $19,000

These are the major programs. We have also contributed to the DeLaMare library, UNR Yerington porphyry mapping course, Stanford ore mineral collection cataloging, and several others. The support of our members and friends has made this possible. Thank you.

Roger C. Steininger
Chair, GSN Foundation

G.S.N. FOUNDATION

Bronze Sponsors $1-$99
Greg Taylor

STUDENT DINNER FUND
Hallet Elson
Pablo Garcia del Real
Bill Pennell
Greg Taylor

STUDENT FIELD TRIP FUND
Kenneth Dresang
Pablo Garcia del Real
Russell Myers
Greg Taylor

G.S.N. SYMPOSIUM 2015 SHORT COURSES!!

The Symposium Short Courses Committee has lined up an amazing slate of courses available pre – and post-Symposium. Check your mail for the new REGISTRATION BOOKLET that includes all of the descriptions and prices!! Or check out the website: http://www.gsnv.org/2015-symposium
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<th>May 18th</th>
<th>May 19th</th>
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<tr>
<td><strong>Exhibit Hall Open</strong></td>
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<tbody>
<tr>
<td><strong>10:15 AM-10:30 AM Coffee Break</strong></td>
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<tr>
<th>May 18th</th>
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<tbody>
<tr>
<td><strong>Luncheon: Chuck Thorman Speaker Showroom</strong></td>
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<td><strong>Luncheon: Andreas Aueret Speaker Showroom</strong></td>
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<td><strong>Luncheon: Brent Cool Speaker Showroom</strong></td>
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<thead>
<tr>
<th>May 19th</th>
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<tbody>
<tr>
<td><strong>Exploration Technology</strong></td>
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<tr>
<th>May 20th</th>
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<tbody>
<tr>
<td><strong>5:00 PM-6:00 PM Closing Reception</strong></td>
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<tr>
<th>May 21st-May 23rd</th>
<th>May 21st-May 23rd</th>
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<tbody>
<tr>
<td><strong>Post-meeting field trip:</strong> Please refer to the descriptions on the following pages.</td>
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<tr>
<td><strong>May 21st-May 23rd</strong></td>
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<tr>
<td>- The Pequop Trend-Nevada’s Newest “Carlin” Trend</td>
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<tr>
<td>- Periphery-related Deposits of Nevada</td>
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<tr>
<td>- The Famous Comstock Gold &amp; Silver District</td>
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<tr>
<th>May 21st-May 23rd</th>
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<tbody>
<tr>
<td><strong>Post-meeting short courses:</strong> Please refer to the descriptions on the following pages.</td>
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<tr>
<td><strong>May 21st-May 23rd</strong></td>
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<tr>
<td>- Geometallurgy: Applied Metallurgy for Geologists</td>
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<tr>
<td>- Leapfrog Modeling for Exploration and Development</td>
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</tr>
<tr>
<td>- Epithermal Deposits: Characteristics and Processes</td>
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GSN 2015-2016 BALLOT

This Ballot will also be attached as a separate file to your email so you can submit online!

In accordance with Article V, Section 4 of the GSN Constitution and Article II of the GSN By-Laws, the GSN Executive Committee and the GSN Board of Directors are recommending the slate of candidates listed below to serve as Officers for 2015-2016 and Directors for 2015-2018; these positions become effective on June 1st.

The entire GSN membership has the right to vote separately on approving the elected positions to the GSN Executive Committee and the Class A three year term on the Board of Directors as presented below:

**Officers for the 2015-2016 GSN Executive Committee**

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESIDENT</td>
<td>Elizabeth Zbinden</td>
<td>SECRETARY</td>
<td>Steve Weiss</td>
</tr>
<tr>
<td>VICE PRESIDENT</td>
<td>Alan Coyner</td>
<td>TREASURER</td>
<td>Robert Kastelic</td>
</tr>
<tr>
<td>MEMBERSHIP CHAIR</td>
<td>Bob Felder</td>
<td>PUBLICATIONS CHAIR</td>
<td>Dave Boden</td>
</tr>
</tbody>
</table>

FOR SLATE______ AGAINST SLATE______

***********************************************************************************************************

**GSN Board of Directors**

**Class A: Three Year Term – 2015 to 2018**

Lynne Volpi
John Watson

FOR BOTH______ AGAINST BOTH______

***********************************************************************************************************

CURRENT GSN MEMBER’S NAME:_________________________________________________________________
(All votes must include the GSN Member’s Name. Vote without a name will not be counted.)

If you are receiving this notice by mail, please either mail your vote to: GSN, 2175 Raggio Parkway, Reno, Nevada 89512 or fax it to (775) 323-3599. In order for the vote on this ballot to be counted the completed ballot must be received in the GSN office on or before 11:59 pm on Friday, April 16, 2015. Thank you for your participation.
Pershing Gold Corp. announced that recent drill results at the Relief Canyon Project include 114.8-128.6 meters @ 7.86 gpt Au (RC15-265A); 16.2-28.3 meters @ 0.76 gpt Au (RC15-266); 51.8-79.2 meters @ 0.38 gpt Au (RC15-267) and 121.3-149.3 meters @ 1.74 gpt Au (RC15-269). (resource = 24,270,000 tonnes @ 0.68 gpt Au measured+indicated) Press Release: February 11

Laurion Mineral Exploration Inc. announced that it terminated the participating rights to the Bell Mountain Property of Lincoln Mining Corp. due to a breach of contract. (resource = 9,761,000 tonnes @ 0.51 gpt Au, 18 gpt Ag measured+indicated) Press Release: February 4

Klondex Mines Ltd. announced that based on recent studies at the Fire Creek Mine, reserves aggregate 168,900 tonnes @ 43.85 gpt Au, 31.6 gpt Ag proven+probable. (was 206,400 tonnes @ 44.7 gpt Au measured+indicated) Press Release: February 23

Klondex Mines Ltd. announced that based on recent studies at the Midas Mine, reserves aggregate 220,000 tonnes @ 12.90 gpt Au, 372.9 gpt Ag proven+probable. (was 1,117,000 tonnes @ 12.9 gpt Au, 207.7 gpt Ag measured+indicated) Press Release: February 23

Goldspike Exploration Inc. announced that recent drill results at the Lone Mountain Project include 138.68-164.59 meters @ 5.21% Zn, 0.22% Pb (LM14-12); 109.73-169.16 meters @ 7.32% Zn, 0.64% Pb (LM14-13); 120.4-213.36 meters @ 3.47% Zn, 1.33% Pb (LM14-14) and 92.96-99.06 meters @ 1.32% Zn, 2.92% Pb (LM14-15). Press Release: February 19

West Kirkland Mining Inc. announced that recent drill results at the Three Hills Project include 106.68-123.44 meters @ 1.24 gpt Au (TH14R-07); 131.06-138.68 meters @ 0.54 gpt Au (TH14R-08) and 108.2-121.91 meters @ 0.42 gpt Au (TH14R-10). (resource = 7,731,000 tonnes @ 0.61 gpt Au measured+indicated) Press Release: January 27

Boss Power Corp. announced that it acquired an option to earn a 100% interest in the Bell Mountain Property from Laurion Mineral Exploration Inc. for $200,000 cash now and future, yet to be determined terms. (resource = 9,761,000 tonnes @ 0.51 gpt Au, 18 gpt Ag measured+indicated) Press Release: February 25
President's Budget Hits Mining

In early February The President released his proposed FY16 budget. As in his previous budget proposals, the hardrock mining industry would be subjected to a royalty of not less than 5% of gross proceeds, increases for annual claim maintenance fees, and a new mineral leasing process. The proposed Bureau of Land Management budget also eliminates the fee exemption for miners holding 10 or fewer mining claims. The budget is largely viewed as symbolic with very little chance of adoption by the current congress.

Grajivala Introduces Mining Law Reform

House Natural Resources Ranking Member Raul M. Grijalva (D-Ariz.) introduced the "Hardrock Mining Reform and Reclamation Act of 2015". The legislation is largely viewed as having very little chance of having a hearing, let alone passage in the GOP controlled committee.

The Legislation

Rep. Grijalva’s proposal is nearly identical to the DeFazio Mining Law bill (H.R. 5060) introduced last Congress. The legislation would:

- Impose an 8 percent gross royalty on production from future hardrock mines on public lands and a 4 percent gross royalty on currently operating mines;
- Raise the annual claims maintenance fee to $200 per claim;
- Provide the secretary of the Interior overly-broad discretion to disapprove mining projects that are in compliance with all relevant laws and regulations ("mine veto");
- Eliminate patenting without providing for security of title and tenure needed to attract investment capital for mining projects;
- Mandate establishment of new, duplicative environmental standards;
- Require the secretary of the Interior to grant withdrawal petitions submitted by states, political subdivisions and Indian tribes unless the petition is not in the national interest; and
- Impose a reclamation fee of seven cents per ton of displaced material on mines located on federal, state, tribal or private lands to be paid no later than 60 days after the end of each year.

Sage Grouse Update

In December, Congress passed the FY2015 CRomnibus funding all federal agencies except the Department of Homeland Security. Included in the CRomnibus was a rider prohibiting the Secretary of the Interior from writing or issuing an ESA rule for the Greater Sage-grouse, the Columbia Basin Distinct Population Segment, the Bi-State Distinct Population Segment or the Gunnison Sage-grouse. Subsequently, Sec. Jewell made it clear she was interpreting this rider to only prohibit the publication of a rule in the Federal Register and that she intended to proceed with making a determination by the arbitrary court-imposed September 30, 2015 deadline. She has repeatedly said that Fish and Wildlife Service is under a court order.

Sen. Corey Gardner (R-CO) is working with other co-sponsors of last year’s Gardner/Enzi bill that would provide time for the state plans to be implemented, demonstrate effectiveness and provide the necessary track record to support a "not warranted” decision. We expect the legislation to be introduced within the next few weeks.

FWS Demands Protection of 16.5 million acres

In early February, congressional staff and E&E obtained a copy of an October 27, 2014 memo with maps from FWS Director Dan Ashe to BLM Director Neil Kornze and USFS Chief Tom Tidwell advising BLM and USFS to impose the (CONT. ON PG. 16)
most stringent protections on 16.5 million acres of priority sage-grouse habitat. The memo described the 16.5 million acres which are contained within the 75 million acres of Priority Areas of Conservation (PACS) as "strongholds." Director Ashe stated that protection of "strongholds" will be a factor in the listing decision. Wyoming Governor Matt Mead wrote this letter in response to the memo expressing concern that additional protections in Wyoming will upset the balance achieved in Wyoming’s core strategy approach to sage-grouse conservation.

If BLM were to incorporate the protections advised by FWS Director Ashe, it would be the equivalent of a mineral withdrawal.

Jewell Issues Secretarial Order on Wildfire

Secretary of the Interior Sally Jewell issued a Secretarial Order aiming to curb rangeland fire in the Great Basin and reduce threats to imperiled species including greater sage grouse. The five-page order prescribes policies for preventing and suppressing rangeland fires and for restoring landscapes that do burn. It seeks to bolster sage grouse as well as the 350 other species that dwell amid the sagebrush steppe, including popular game species like elk and pronghorn.

The order comes as invasive species, namely cheatgrass and medusahead rye, have led to larger and more frequent wildfires in states including Idaho, Utah, Nevada, Oregon and California. Sage grouse face a panoply of threats across their 11-state Western range -- including oil and gas development, transmission lines, roads and even ravens -- but a top threat in these Great Basin states is wildfire and invasive cheatgrass.

OTHER UPCOMING EVENTS

**April 2, 2015** — NV Petroleum & Geothermal Society Meeting. Speaker & Topic to be Announced. Ramada Reno Hotel, 1000 E. 6th Street, Reno, NV. Cocktail Reception 6:30, Skyline Bar, 14th Floor. Dinner 7 pm, Talk at 8 pm. NPS Members $20; Non-members $23; Students—$10. RSVP by Mar. 31st with the following link: https://docs.google.com/forms/d/1tT4BySayTuvkhsJzZ1wdFjHXGmPIRRgiR8ig0PuCDjA/viewform

**April 11, 2015** — SME Northern Nevada Section. Happy Hour @ 6pm, Dinner @ 6:45 pm; Talk @ 7:30 pm. Circus-Circus Mandalay Room, Reno, Nevada. Speaker & Topic to be Announced. Members-$30; Non-members $35; Students free. Please make reservations by Wednesday, April 8. RSVP to Brooke Miller: NNevSME@gmail.com.

**April 20-24, 2015** — 27th International Applied Geochemistry Symposium, Location: Tucson, AZ. Website: www.27iags.com


**June 12, 2015** — GEOLOGICAL SOCIETY OF NEVADA MEMBERSHIP PICNIC hosted by the GSN’s Board of Directors. Rancho San Rafael Park, Pagoda Pavillion, Reno, NV. Jon Price is resurrecting the traditional games of “rock hammer throw” and “gold pan toss”. Prizes will be awarded! Please RSVP to the GSN office, gsn@gsnv.org.

**June 13, 2015** — GSN’s Annual Golf Tournament, Washoe Golf Course, Reno, Nevada. Tentative Shotgun start @ 8:00 a.m.. BBQ to follow. Many fabulous raffle prizes will be available to benefit the GSN FOUNDATION. Registration form will be in the May newsletter and emailed to the members April.

IT’S ALMOST HERE!!!!

**14-23 MAY 2015, GSN SYMPOSIUM 2015: NEW CONCEPTS AND DISCOVERIES**

Being held at J.A. Nugget, Sparks, Nevada. Pre- and Post-Field Trips, Short Courses, Exhibits, Technical Program and GSN-SEG Forum. For more information please contact Molly Hunsaker, mollymhunsaker@2015GSNsymposium.org or Andrea Rascati at info@2015gsnsymposium.org.

REGISTER NOW for the Technical Session, SEG Forum, Field Trips, Short Courses and Exhibits online at: www.gsnv.org/2015-symposium. REGISTRATION IS OPEN & EXHIBITS & FIELD TRIPS ARE FILLING FAST!!
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Clark Jorgensen, M.Sc.
Geophysicist

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