

GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
(775) 323-3500 - Hours Monday -- Friday, 8 a.m. to 4 p.m.
Website: www.gsnv.org • E-mail: gsn@gsnv.org



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CALENDAR OF GSN EVENTS

- Oct 5-7, 2012** **GSN FALL FIELD TRIP—The field trip is full!** The registrants are looking forward to a weekend looking at the Buckskin epithermal system, the Western Lithium and Moonlight Uranium deposits, and the McDermitt Caldera.
Fri—Sunday
- Oct. 9 2012** **SOUTHERN NEVADA CHAPTER & AEG JOINT MEETING!!**
Tuesday Speaker will be Jim Faulds, NBMG Director and State Geologist. Topic: Geothermal resources in Nevada. 5:00—7:00 PM, McCormick & Schmick's 335 Hughes Center Dr. Cost for dinner \$27 (AEG or GSN Members), \$32 Non-members. For more info. contact R. Paul Bowen, 702-247-7765.
- Oct. 10, 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 @ 6 PM, Appetizers @ 6:30 PM, Talk @ 7:00 PM. Speaker: Andy Jansen, Newmont Mining Corp; Title: "Precambrian Basement Rocks of the Clearwater Metamorphic Complex: A new piercing point along the western margin of Laurentia". Abstract on pg. 6. **Sponsor is SGS, INC.** For more information contact Leann Giese at leann.giese@newmont.com.
- Oct. 18, 2012** **ELKO CHAPTER 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 and Topic: To Be Announced. Sponsor: To Be Announced. For more information contact Jared Townsend at jtownsend@barrick.com.
- Oct. 19, 2012** **GSN MEMBERSHIP MEETING (Every 3rd Friday of the month)**
Friday The monthly meeting will be held at the Reno Elks Lodge, 597 Kumle Lane, Reno. Drinks at 6:00 PM, Dinner at 7:00 PM, Talk at 8:00 PM. Speaker: Lori Carpenter, 7Q10, Inc., Title: "Hydrology in Nevada 101". **Sponsor for the evening is: RUEN DRILLING INC.** Dinner reservations must be made by NOON Thurs., Oct. 18th. Call Laura Ruud at (775) 323-3500; or email: gsn@gsnv.org. **\$18/each**

It's Time to Renew Your Dues for 2013!!

Online: www.gsnv.org/membershipform.php or see form on page 11.



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FROM THE PRESIDENT
David Emmons, G.S.N. President 2012—2013

Dear GSN Members,

Our first meeting of the 2012-2013 year was a success with about 120 members attending the dinner and many others for the presentation. The presentation was by Adam Simon with coauthors Jean Cline and John Muntean. The presentation was on the magmatic-hydrothermal model for Carlin-type deposits. It was an excellent talk on some of the current thinking on the origin of the Carlin systems. I think everyone would agree that the illustrations were fantastic. Not all in the audience agreed with all of the ideas presented; but it was a thought provoking presentation. Adam received numerous questions after his presentation. He certainly engaged the group. Adam thanked GSN for the invitation to give the presentation and for all that GSN and its members have done for the understanding and unraveling of the geology of Nevada and its mineral systems.

The speaker for the October meeting will be Lori Carpenter. Lori is a hydrologist and hydrogeologist with 7Q10, Inc. (formerly Huffman & Carpenter, Inc.) in Reno. She is a new member of GSN, so please welcome her when you see her at the meeting. Her presentation will be somewhat unusual for GSN meetings; however, it will be an opportunity for the members to learn more about the hydrology and ground water in Nevada. The title of her talk is "Hydrology in Nevada 101." It will be a mini-short course on hydrology and some of the ground water regulations in Nevada.

Tommy Thompson, GSN Vice President, has organized a very interesting Fall Field Trip for October 5-7 out of Winnemucca. The trip will be to

the Buckskin (National) epithermal system, the Western Lithium deposit, the Moonlight Uranium deposit, and the McDermitt caldera. Tommy will also be giving a presentation on Friday evening at 8:00 pm in Winnemucca on the Buckskin epithermal system. The response to the field trip has been very good and the trip is sold out with 41 attendees. As usual, a guidebook for the field trip will be available for purchase from GSN after the field trip.

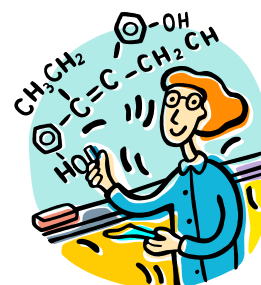
The ad hoc committee for the 2015 GSN Symposium is looking to fill positions for committee chairs for the symposium. Please consider volunteering; if you are interested you can contact Eric Ruud, eric.ruud@inspectorate.com. The GSN symposiums held every five years are some of the best geological meetings held anywhere.

Please check out the GSN website for the interactive GSN publications page.

The quote for the month: ***"It is much better to learn the elements of geology, of botany, or ornithology and astronomy by word of mouth from a companion than dully from a book."***

By Ralph Waldo Emerson, circa 1900.

Signing off for now – see you at the October GSN Meeting.



GSN October 19, 2012 Membership Meeting

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

GSN CANNOT GUARANTEE DINNER SEATING WITHOUT ADVANCE RESERVATIONS.

Please call 775-323-3500, Fax 775-323-3599 or e-mail gsn@gsnv.org by **NOON on Thursday, October 18, 2012.**

Social Hour: 6:00 PM – Dinner: 7:00 PM – Speaker: 8:00 PM

\$18.00 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)

Hydrology in Nevada 101

Lori Carpenter, Hydrologist

7Q10, Inc.

Water in Nevada, one word -scarce. Nevada is part of the Basin and Range Province which is the most arid area in the Nation. Mark Twain said that “whiskey was for drinking and water is for fighting over”. The water in Nevada on the surface and below the ground surface belongs to the people of the State, not the United States. Nevada is divided into 256 hydrographic basins and generally each basin is considered a separate source of water. Basins are often referred to as aquifers (although the terms groundwater basin, aquifer or reservoir are not necessarily the same).

Total precipitation in Nevada averages about nine inches per year, and of this only 10% is stream runoff and groundwater recharge with the remaining 90% lost through evapotranspiration. Surface water in Nevada has been fully appropriated and approximately half of the groundwater basins are designated, therefore fully appropriated. Beneficial uses of water include irrigation, mining, stock watering, recreation, commercial, industrial and municipal uses.

Nevada uses a system called the perennial yield to determine the amount of useable water from a groundwater aquifer that can be economically withdrawn and consumed each year for an indefinite period of time. The perennial yield cannot be more than the natural recharge of the groundwater reservoir and it is usually limited to the maximum amount of natural discharge. Studies to determine the perennial yield of some of these basins were delineated about a second ago (in geologic time) or in the 1970s and 1980s by the US Geological Survey and when filing for water rights in over- appropriated basins, these studies often need to be updated and can be complex and time consuming.

Knowledge of Nevada water law and scientific principles are necessary to implement projects for mining activities and the project’s consumptive and non-consumptive uses need to be evaluated. This talk will provide an introduction to hydrology with basic terms and budgets defined for the geologic rock hound. Basic review of hydrologic measurements and data sources will be discussed to facilitate a discussion of surface and groundwater principles. The goal is to provide a working vocabulary and knowledge of hydrologic units of measure for porosity, permeability, saturated versus unsaturated hydraulic flow, infiltration and precipitation, ET, runoff and hydrographs to facilitate a discussion on groundwater basins and the federal and state requirements for applied uses such as pit dewatering, types of and design of monitoring wells, preliminary plans of operation, reclamation, closure and monitoring requirements.

Examples of Nevada open and closed groundwater basins, including inter-basin flow, will be presented for discussion. Recharge and discharge of groundwater aquifers will be discussed in relation to water tables in confined and unconfined aquifers. Water quality and the monitoring of water quality will be discussed because State regulations require that Nevada’s waters are not degraded by mining operations.

The talk will also cover the necessary baseline surface and groundwater data that should be collected for studies related to water resources characterization in support of exploration and development of drilling projects. There will be time for questions AND emails provided to lcarpenter@7q10.com will be entertained and answered AND if allowed could potentially be utilized within the talk as site specific industry examples (names would be changed to protect the parties).

“FACES OF GSN”

Leann Giese, Winnemucca Chapter President

I was born and raised in Sussex, Wisconsin, the land of beer, cheese, and Packers! Growing up in Wisconsin was a great time with lots of camping, Whitetail hunting, and lakes, but not many rock outcrops unless you went to a nearby limestone quarry.

I attended the University of Wisconsin Oshkosh where I had no idea what to study. Lo and behold, an *Introduction to Geology* class and one geology field trip later and I was hooked! The first trip was to the Sierra Nevada and Death Valley. It was my first time ever seeing mountains like that or feeling heat like that! Throughout my college experience, I was privileged to participate in many trips out west; Yellowstone, Colorado Plateau, Arches, Craters of the Moon, Devil’s Tower, Mt. Rushmore, the Badlands, and many other places. I was also able to go on trips to northern Minnesota to look at the banded iron formations, pillow basalts and gabbros. While finishing my studies, I endured a six-week field camp in the Uinta and Wasatch Mountains.



While finishing my studies, I endured a six-week field camp in the Uinta and Wasatch Mountains.



Leann at Twin Creeks Mega Pit, using the Total Station.

In 2006, I moved to Socorro, New Mexico with my boyfriend at the time, currently my fiancé, into a 100-year old adobe house. I worked for the New Mexico Bureau of Geology and Mineral Resources on the Waste Rock Characterization Study. I helped with fieldwork, sample collection, in-situ shear tests, sample preparation and lab work.

Currently, I work at Twin Creeks mine in northwestern Nevada for Newmont Mining Corporation. I started in 2008 as an ore control geologist and eventually became a project geologist for the surface group. I am enjoying my time working in Nevada and still having fun hunting and camping when I can.



Leann with Patrick Donovan & Neale Columb

Thank you for letting me be a part of *Faces of GSN*, and hopefully I can continue to be a part of GSN for years to come. Go Packers!



Tax Deduction

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DONATE YOUR GEOLOGY AND SCIENCE BOOKS TODAY!!

It is that time of the year to consider gift giving. If you have any geologic books that you are considering giving away, please contact Clancy Wendt. GSN and the Tucson Gem and Mineral Society have given over 70,000 books to Universities in Mexico. This is a tax deductible item and anything you have will be greatly appreciated as Mexican Universities have very little in the way of reference books. We are also seeking people who are going to Tucson who have room in the cars or trucks to take some of the books we already have. 775-852-2513

If you'd like to purchase a set of GSN Symposium Proceedings to donate, please contact Laura at the GSN Office. 1990 Set—\$15, 1990 Comp. Set—\$15, 1995 Set—\$50, 2000 Set—\$80, 2005 Set—\$155, and the 2010 Set—\$190! I'll get them delivered to Clancy!

GEOLOGY JOKE CORNER

Q: What do you get when you mix sulfur, tungsten, and silver?

A: SWAG

Q: What did the boy volcano say to the girl volcano?

A: I Lava You!

Q: Why did the geologist take his girlfriend to the quarry?

A: He wanted to get a little boulder.

Q: What is the difference between a geologist and a chemist?

A: A chemist will drink anything that is distilled.
A geologist will drink anything that is fermented

Watson: Holmes! What kind of rock is this?

Holmes: Sedimentary, my dear Watson.

source: <http://www.jokes4us.com/miscellaneousjokes/schooljokes/geologyjokes.html>

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G.S.N. WINNEMUCCA CHAPTER MEETING

WEDNESDAY, OCTOBER 10, 2012

Location: The Martin Hotel, 94 West Railroad Street

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

Sponsored by: **SGS, INC.**


Presenter: Andy Jansen, Newmont Mining Corporation

TITLE: PRECAMBRIAN BASEMENT ROCKS OF THE CLEARWATER METAMORPHIC COMPLEX: A NEW PIERCING POINT ALONG THE WESTERN MARGIN OF LAURENTIA

Abstract:

Interest in the geochronology of Eocene metamorphic core complexes in the northern Cordillera of the United States has increased in the past decade. The driving forces behind many of these studies have been the discovery of previously unrecognized Precambrian basement rocks and the increased precision and accessibility of geochronology instrumentation. Until this study, only a handful of dates have been published for meta-igneous and metasedimentary rocks of the Clearwater complex. Geological mapping coupled with laser-ablation zircon geochronology have identified new exposures of Neoproterozoic (2676 Ma) and Paleoproterozoic (1853 Ma) metaigneous rocks. Isotopically, metaigneous rocks have positive initial epsilon Nd values suggesting the involvement of juvenile mantle material and recycled Archean lithosphere. Metasedimentary rocks in the study area fall into two categories: sediments with U-Pb detrital zircon ages > 1.73 Ga and sediments with U-Pb detrital zircon ages < 1.73 Ga; both categories exhibit slightly negative to slightly positive initial Nd epsilon values. Metasedimentary rocks with U-Pb ages >1731 Ma indicate a time of deposition after the emplacement of Paleoproterozoic intrusions and probably prior to the formation of the ~1.45 Ga Belt-Purcell Supergroup. Metasedimentary rocks with U-Pb ages < 1731 Ma indicate a time of deposition after the emplacement of Paleoproterozoic intrusions and after initiation of the Belt-Purcell sedimentation. Although the exact nature of the contact relationships between the metaigneous basement rocks and the surrounding metasedimentary rocks is not known in detail, the rocks in the eastern Clearwater complex provide new isotopic, geochronologic, and lithologic information about the poorly understood time period between creation of Precambrian basement and the formation of the Mesoproterozoic Belt-Purcell Supergroup. In total, these new data provide a new piercing point along the western margin of Laurentia that can be used in the reconstruction of Rodinia.

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Thanks to BOART LONGYEAR
For Hosting the September 21, 2012 Meeting in Reno!

G.S.N. SOUTHERN NEVADA CHAPTER JOINT MEETING WITH THE AEG CHAPTER!!

Tuesday, October 9, 2012

5:00 p.m.—7:00 p.m.

McCormick & Schmick's Restaurant, Las Vegas
SPEAKER: Jim Faulds, Director & State Geologist
Nevada Bureau of Mines & Geology

TOPIC: Geothermal resources in Nevada

Cost for dinner \$27 (AEG or GSN Members), \$32 Non-members.
For more info. contact R. Paul Bowen, 702-247-7765 or paulbowen@cox.net

G.S.N. ELKO CHAPTER MEETING

Thursday, October 18, 2012

6:00 p.m.—9:00 p.m.

Western Folklife Center

SPEAKER: To Be Announced

Sponsor: To be Announced

NEVADA GEOLOGY CALENDAR IS HERE!

Nevada Geology Calendar 2013, designed by Jack Hursh and Jennifer Mauldin

13 x 9.5 inches, **\$10.00**

This 15-month calendar (October 2012 through December 2013) features a different geologic topic each month: Paleontology, Geologic Mapping, Volcanic Flows, Sandstone, Geothermal, Historic Mining, Tilting Geology, Geodesy, Structural Geology, Flash Floods, Evaporites & Evaporates, Ash-Flow Tuff, Earthquakes & Faults, Modern Mining, and Ancient Lakes.

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These would make wonderful holiday gifts for your friends or clients.



Activity Update

Mike Brady, August 2012

www.activityupdate.com

NEVADA

Paramount Gold + Silver Corp. announced that based on a preliminary economic assessment for the Sleeper Project, resources aggregate 194,400,000 tonnes @ 0.34 gpt Au, 3.6 gpt Ag measured; 90,000,000 tonnes @ 0.27 gpt Au, 3.3 gpt Ag indicated and 136,000,000 tonnes @ 0.27 gpt Au, 2.9 gpt Ag inferred. (was 42,790,000 tonnes @ 0.37 gpt Au, 4.2 gpt Ag measured+indicated and 13,190,000 tonnes @ 0.32 gpt Au, 3.4 gpt Ag inferred-oxide and 129,970,000 tonnes @ 0.51 gpt Au, 4.7 gpt Ag measured+indicated and 64,410,000 tonnes @ 0.44 gpt Au, 3.1 gpt Ag inferred-sulfide) *M.J.:* August 3

Ramelis Resources Ltd. announced that recent drill results at the Angel Wing Project include 208.8-210.3 meters @ 0.35 gpt Au (AW12-01); 25.9-29.0 meters @ 0.75 gpt Au (AW12-02); 30.5-39.6 meters @ 0.73 gpt Au (AW12-04) and 195.1-208.8 meters @ 0.36 gpt Au (AW12-05). *Press Release:* August 7

International Millennium Mining Corp.(85%) announced that based on recent drill results at the Nivloc Project, resources aggregate 2,176,000 tonnes @ 87.2 gpt Ag, 0.67 gpt Au inferred. (was 564,500 tonnes @ 1.0 gpt Au, 153.5 gpt Ag inferred) *Press Release:* August 16

Canamex Resources Inc. announced that recent drill results at the Bruner Project include 88-206 meters @ 4.08 gpt Au (1201). *N.M.:* July 30

Meadow Bay Gold Corp. announced that based on recent drill results at the Atlanta Project, resources aggregate 1,460,000 tonnes @ 1.56 gpt Au, 4.5 gpt Ag indicated and 753,700 tonnes @ 1.34 gpt Au, 7.8 gpt Ag inferred. (was 9,300,000 tonnes @ 1.7 gpt Au, 2.0 gpt Ag indicated) *N.M.:* July 30

Corazon Gold Corp. announced that it offered to acquire ICN Resources Ltd. through a 1.0 share Corazon/1.0 share ICN exchange basis. *Press Release:* August 13

Yukon-Nevada Gold Corp. announced that recent underground drill results at the Jerritt Canyon/Smith Project include 3.66 meters @ 26.13 gpt Au (SMI-LX-787); 9.45 meters @ 5.28 gpt Au (SMI-LX-796); 10.67 meters @ 6.31 gpt Au (SMI-LX-813) and 26.23 meters @ 11.45 gpt Au (SMI-LX-814). (resource @ Smith = 3,805,000 tonnes @ 8.02 gpt Au measured+indicated) *Press Release:* August 2

Timberline Resources Corp. announced that recent drill results at the Lookout Mountain Project include 82.3-146.3 meters @ 0.45 gpt Au (BHSE-142); 6.1-12.2 meters @ 0.45 gpt Au (BHSE-146); 312.4-317.0 meters @ 4.73 gpt Au (BHSE-152) and 24.7-63.7 meters @ 0.69 gpt Au (BHSE-126C). (resource = 18,838,000 tonnes @ 0.65 gpt Au measured+indicated) *Press Release:* August 23

Scorpio Gold Corp.(70%) announced that recent drill results at the Mary LC Zone Project include 44.21-47.26 meters @ 2.73 gpt Au (MR12-119); 30.49-33.54 meters @ 0.41 gpt Au (MR12-120); 53.35-57.93 meters @ 4.74 gpt Au (MR12-121) and 28.96-36.59 meters @ 6.16 gpt Au (MR12-123). (resource @ Minderal Ridge = 4,230,000 tonnes @ 1.47 gpt Au indicated) *Press Release:* August 22

Midway Gold Corp. announced that recent drill results at the Spring Valley Project include 334.7-492.3 meters @ 1.75 gpt Au (SV12-561C); 288.5-433.4 meters @ 1.65 gpt Au (SV12-565C); 170.7-201.2 meters @ 1.20 gpt Au (SV12-568) and 150.9-231.6 meters @ 1.61 gpt Au (SV12-570). (resource = 145,100,000 tonnes @ 0.48 gpt Au measured+indicated) *Press Release:* August 13

Entrée Gold Inc. announced that recent drill results at the Ann Mason Project include 308-1,100 meters @ 0.23% Cu, 0.03 gpt Au, 0.016% Mo (AM12-028); 192-1,072 meters @ 0.24% Cu, 0.02 gpt Au, 0.002% Mo (AM12-029) and 256-1,016 meters @ 0.29% Cu, 0.02 gpt Au, 0.004% Mo (AM12-030). (resource = 640,000,000 tonnes @ 0.38% Cu, 0.007% Mo indicated) *Press Release:* July 30

Crunch coming on uranium supplies?

**Dr. Lee Allison, AZ State Geologist
(reprinted from Sept. 18, 2012 Blog)**

The mining industry has recognized for years that the world's nuclear power plants use more uranium than is being mined. The shortfall has been made up from stockpiles in Russia and other countries but that agreement ends in 2012.

An interview* with mining analyst Alka Singh lays out the numbers: 433 currently operating nuclear power reactors around the world annually consume 177 million pounds (Mlb) of uranium. World production was 130 Mlb last year. The U.S.'s 104 operating nuclear power reactors used 55 Mlb while the U.S. produced only 4 Mlb. [Photo Below: highly enriched uranium. Credit, US DOE]

Thus, the industry's rush to find and develop enough uranium resources to keep the plants fueled, and one reason that the breccia pipes in northern Arizona, which have among the highest concentrations of uranium of any deposits, are a strategic target for mining.

*Click on this link to read the full interview:

<http://seekingalpha.com/article/866571-uranium-fundamentals-are-at-a-tipping-point-alka-singh>)



Upcoming Events

**Nevada Petroleum & Geothermal Society
Dinner Meeting:**

Thursday, October 4, 2012

**Ramada Reno Hotel; 6:30 PM
1000 East 6th Street, Reno, NV 89512**

**Speaker: Shuman Moore, President/CEO
Ram Power Corp., Reno, NV**

Topic: Ram Power's Nicaraguan Project

Cocktail Reception 6:30, Skyline Bar, 14th Floor

**Redeem your dinner ticket for a drink
at the Skyline Bar**

Hosted by Barbour Well, Inc.

****RSVP by TUES Oct. 2 to Judy Kareck (775) 827-6111 or**

jkareck@lumosengineering.com



October 2012 Section Meeting

Monday, October 8, 2012

Please RSVP by Noon, WEDNESDAY, October 3, 2012

Send RSVP to Kaitlin Sweet

775-225-6147 or KCSweet@enviroincus.com

Happy Hour 6, Dinner 6:45 & Talk at 7:30 PM

Circus-Circus Mandalay Room

Mackay students enjoy free admission & dinner

Speaker: Dr. Thom Seal, Professor

Mining – Metallurgical Engineering Department
University of Nevada, Reno

**Talk: "Minimizing Mercury Pollution during
Gold Ore Processing"**

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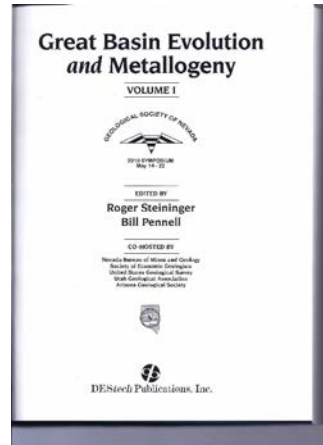
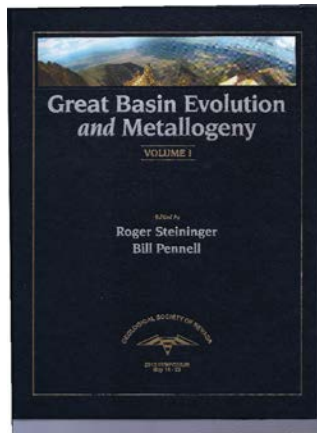
We have added images of the cover pages and table of contents of every GSN publication that is available for sale online.

Now you can see the contents before you buy it !

Example: Item Number: 10-1

Item Description: "Great Basin Evolution and Metallogeny: 2010 Symposium Proceedings", 62 papers, 2 hardbound vols, 1191 pp.

Price: \$190.00



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The GSN Membership drive continues this month! Renew online: <http://www.gsnv.org/membershipform.php>
 or fill out the Renewal form below and send it to the GSN office.

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Offices are located at NBMG's Great Basin Science Sample & Records Library at The Desert Research Institute
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The Geological Society of Nevada (GSN) is a non-profit, educational organization whose principal objective is to promote the advancement of geological sciences, especially as they relate to Nevada. GSN supports the dissemination of information through meetings, field trips, publications and academic endeavors. Membership is open to geologists, geophysicists, geochemists, engineers, educators, students, prospectors or anyone else with an interest in the geological sciences and/or the goals of the GSN.

The membership year begins on January 1. Annual dues of \$50.00 (\$25.00 for full time students) are due prior to December 31. The GSN conducts a Field Trip in the Fall and one in the Spring of each year. Monthly meetings are held in Reno, Winnemucca, and Las Vegas (Southern Nevada Chapter) September through May. The Elko Chapter holds meetings January through December.

Please help support the GSN Foundation when renewing. Foundation dollars are used for the Kindergarten through 12th grade Field Trip Grant Program, Nevada Mapping Grants and University of Nevada scholarships.

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Renewal New

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Yes No

Optional Chapter Affiliation (to be eligible for chapter voting and emails from those Chapter Officers)

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WHERE IN NEVADA??

OCTOBER CONTEST

1. Where is it ?
2. What is it ?
3. How was it formed ?

Send your entries to Laura Ruud no later than Thursday, October 18, 2012. All entries must be accompanied by your own suggested mystery geology photo taken somewhere in Nevada. The winning entry will be selected at random from among all the correct entries who also submitted a photo and a fabulous prize will be awarded.

Answer to September's "Where in Nevada ?" contest:

Bob Schafer was the winning entrant for the September contest. He correctly identified September's Mystery Photo. ["It is Majuba Mountain about 20 miles north of Lovelock and 10 miles west of Mill City. It is a poly-phase granite-rhyolite intrusive complex known for its copper and tin mineralization."](#)

Bob has submitted this photo for October's contest:



Don't forget that you MUST submit your own "Where in Nevada" photo along with your answers to be eligible!!

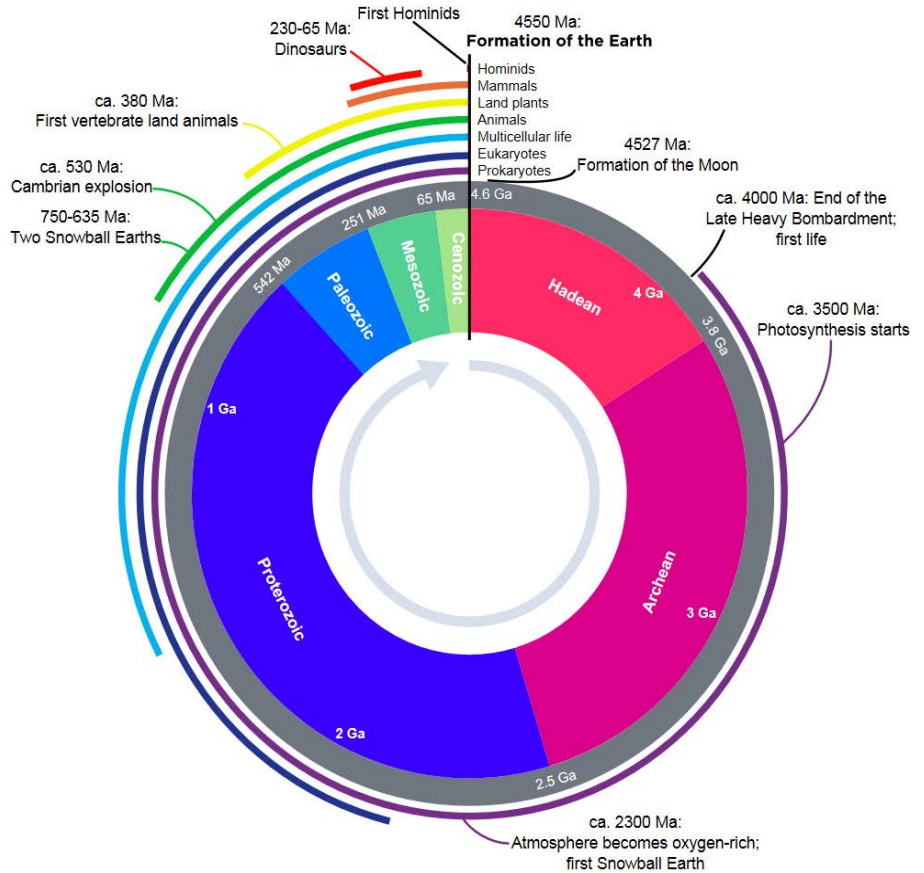


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for sponsoring the Elko Chapter
Meeting in September!**

**Thank you to
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Geologic Time Clock (reprinted from Wikipedia)

This clock representation shows some of the major units of geological time and definitive events of Earth history. The Hadean eon represents the time before fossil record of life on Earth; its upper boundary is now regarded as 4.0 Ga.^[1] Other subdivisions reflect the evolution of life; the Archean and Proterozoic are both eons, the Palaeozoic, Mesozoic and Cenozoic are eras of the Phanerozoic eon. The two million year Quaternary period, the time of recognizable humans, is too small to be visible at this scale.



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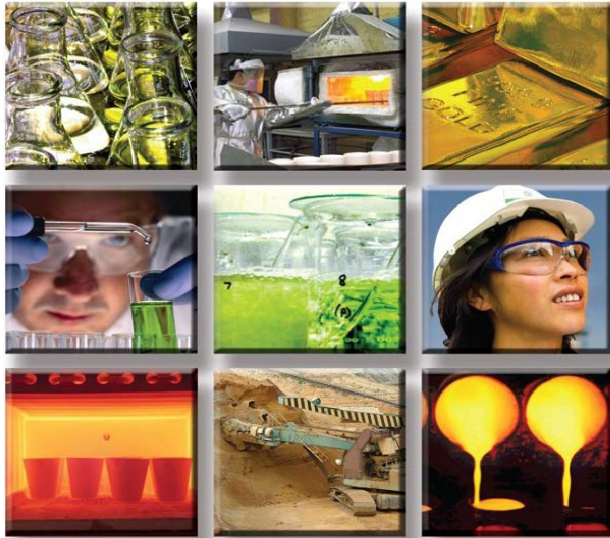


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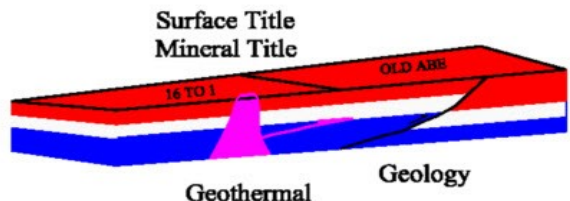
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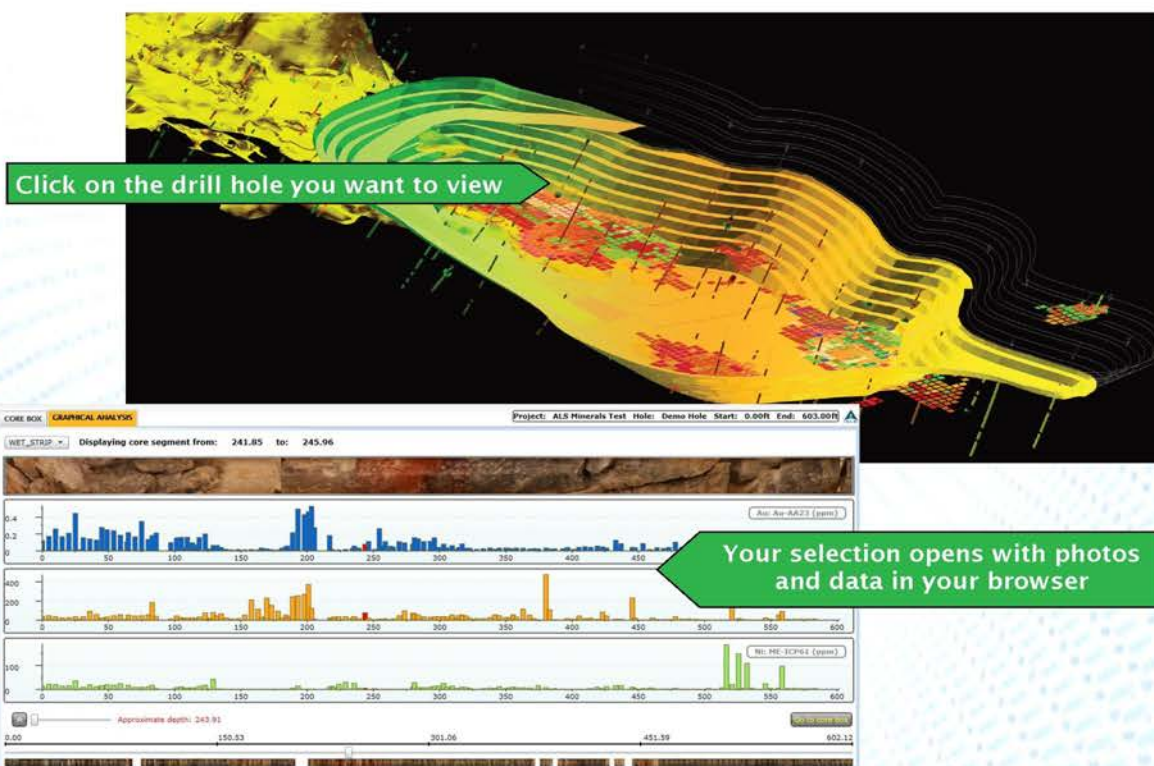
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