



GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
(775) 323-3500 - Hours Tuesday -- Friday, 9 a.m. to 4 p.m. Monday by appointment.
Website: www.gsnv.org • E-mail: gsn@gsnv.org



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CALENDAR OF GSN EVENTS

Feb. 7, 2019
THURSDAY

SO. NEVADA CHAPTER MEMBERSHIP MEETING (1st Thursdays)

The meeting will be held at the Las Vegas Natural History Museum, 900 N. Las Vegas Blvd. Pizza & beer at 5:30 pm, Talk at 6:00 pm. **Speaker: Chris Baker, MP Materials. Title: "MP Materials and The Mountain Pass Mine: A Geological and Environmental Perspective". FOOD & DRINKS ON GSN!** Please contact Chapter President, Joshua Bonde for more information @ paleo@lvnhm.org. Details on page 7.

Feb. 13, 2019
WEDNESDAY

WINNEMUCCA CHAPTER MEMBERSHIP MEETING (2nd Wednesdays)

The meeting will be held at the Martin Hotel, 94 W. Railroad St., Winnemucca, NV. Refreshments/appetizers at 6:00 pm; Talk at 7:00 pm. **Speaker: Max Baker, Integra Resources. Title: The DeLamar – Florida Mt. – War Eagle Silver-Gold Epithermal District, Idaho. A Brief History and Exploration Update. FOOD & DRINKS ON GSN!** For more information please contact Chapter President, Matt Fithian @ Matthew.Fithian@ssrmining.com. Details on pg. 7.

Feb. 15, 2019
FRIDAY

GSN REGULAR MEMBERSHIP MEETING—NEW LOCATION!!

The monthly meeting will be held at Great Basin's **Taps & Tanks**, 1155 S. Rock Blvd. Reno, NV. Drinks @ 6:00 pm, Dinner @ 7:00 pm, Talk at 7:45 pm. **Speaker: John Muntean, NV Bureau of Mines & Geology. Title: "The Continua between Carlin-type Gold Deposits and Distal Disseminated and Epithermal Gold-Silver Deposits in Nevada." Drinks Sponsored by: The GSN in appreciation of our sponsors!!** Cost for Dinner—\$25. GSN Students are free. **Reservations for dinner are due MONDAY, Feb. 11th by 5 pm!** Email Laura Ruud at gsn@gsnv.org. 775-323-3500. Details on page 3. **See map to Taps & Tanks on page. 4! To PREPAY for dinner please click on the link below:** <https://squareup.com/store/GSNV>

Feb. 21, 2019
THURSDAY

ELKO CHAPTER MEMBERSHIP MEETING (3rd Thursdays)

The monthly meeting will be held at the Western Folklife Center, 501 Railroad St., Elko, NV. Refreshments begin at 6:00 pm. Talk begins at 7:00 p.m. **Speaker: Melanie Newton, Gold Standard Ventures. Title: "Geology of the Dark Star Gold Deposit: Carlin-style Mineralization, the Railroad-Pinion District, Carlin Trend, Nevada" FOOD & DRINKS ON GSN!** For more info please contact Nate Wright @ Nathan.wright@newmont.com. Details on page 8.

G.S.N. FEBRUARY MEETING SPONSOR

The GSN is recognizing all of our
GREAT SPONSORS at the meetings this
month for their **GENEROUS** support of
the GSN and its Chapters!



FROM THE PRESIDENT
Richard Bedell, GSN President 2018-2019
FEBRUARY 2019

February is Sponsor Appreciation month. GSN has gone to our sponsors many times and they have been more than generous to help build GSN into the successful organization that it is today. To show our appreciation we are giving them a breather by GSN sponsoring the February meetings in Las Vegas, Elko, Reno, and Winnemucca. You still must buy dinner at the Reno event, but we are paying for our Sponsor's dinner. Show your appreciation by thanking them when you see them this month.

Last month we discussed epithermal deposits to give context to Rick Streiff's great talk about discoveries on the North Island New Zealand. This month the speaker is John Muntean giving a review of Carlin Systems. John is the lead editor for a new volume entitled "Diversity of Carlin-Style Gold Deposits" Reviews in Economic Geology Volume 20. John's paper "The Carlin System: Applications to Exploration in Nevada and Beyond" covers some serious ground in theorizing their formation to all aspects of geology from geochemistry to structural controls. The volume includes other key papers from other GSN members including Jean Cline, Moira Smith, Harry Cook, Tim Percival, Don Noble, Bill Bagby, and Matt Fithian. The volume also contains papers that are not from the Great Basin including Carlin types in China, Macedonia, Malaysia, Iran, and the Yukon. It is a useful update and comparison with other Carlinesque terranes.

I think of interest to many will be the exploration criteria that John has assembled. Carlin type systems are almost the opposite of low sulfidation epithermal vein systems in that they form rapidly and the hydrothermal fluid may be saturated in gold. Carlin systems are huge, long-lived systems with fluids generally undersaturated in gold so they require longevity to create ore-grades. Such systems exhibit a lack of zoning and make them much harder to vector. One could be drilling in an eventual Carlin-type orebody for years before discovering the critical elements that might make it economic.

When I first came to Nevada in 1993, I was struck by the dominance of thrust tectonics in defining the architecture of Carlin systems. They were emplaced when the stresses switched to more transtensional stress fields, but the long history of repeated compressional events define what opens up and what does not. John's work clearly recognizes this with work going back to Mike Coward on structural inversion. I applaud efforts by the NBMG to do fundamental structural mapping that better helps to define this pre-mineral architecture.

Happy Groundhog day,

Richard Bedell

Current GSN President

The G.S.N. wishes to thank
MINE DEVELOPMENT ASSOCIATES
for sponsoring the GSN meeting
on January 18, 2019!!



MINE DEVELOPMENT
ASSOCIATES

GSN MEMBERSHIP MEETING—FEBRUARY 15, 2019



SPEAKER: John Muntean, Nevada Bureau of Mines & Geology, U.N.R.

TITLE: “The Continua between Carlin-type Gold Deposits and Distal Disseminated and Epithermal Gold-Silver Deposits in Nevada”

Social Hour begins @ 6:00 pm; Dinner @ 7:00 pm;

Speaker to Follow @ 7:45 pm

**NEW LOCATION: Great Basin’s TAPS & TANKS, 1155 So. Rock Blvd., Reno, NV
(ENTER ON McCARRAN BLVD. —SEE MAP ON PAGE 4!!)**

DINNER COST—\$25.00 PER PERSON

(You will be invoiced \$25 if you do not cancel your reservation by Wednesday Feb. 14th)

To Pre-pay for dinner please click here: <https://squareup.com/store/GSNV>

For dinner reservations to pay at the door, please e-mail gsn@gsnv.org or call 775-323-3500

Dinner Reservations due by 5 PM on MONDAY, FEBRUARY 11TH!

The Continua between Carlin-type Gold Deposits and Distal Disseminated and Epithermal Gold-Silver Deposits in Nevada.

John Muntean
Nevada Bureau of Mines and Geology
University of Nevada Reno

Most research on Carlin-type deposits in Nevada has focused on four main camps that account for 95% of the production from Carlin-type deposits in Nevada – the Carlin Trend, Cortez, Getchell, and Jerritt Canyon. Though their local geologic settings differ slightly, they share many common characteristics, including lithologic and structural controls to fluid flow and ore deposition, an As-Hg-Sb-Tl geochemical signature and low Ag:Au ratios in the ores, hydrothermal alteration and ore paragenesis, relatively low temperatures and salinities of ore fluids, and lack of mineral and elemental zoning. The shared characteristics suggest a shared origin, yet there is no consensus on their genesis. Future research should focus on Carlin-style deposits, such as distal-disseminated deposits that have a clear genetic association with magmatic-hydrothermal systems associated with intrusions and deposits that have characteristics of epithermal deposits.

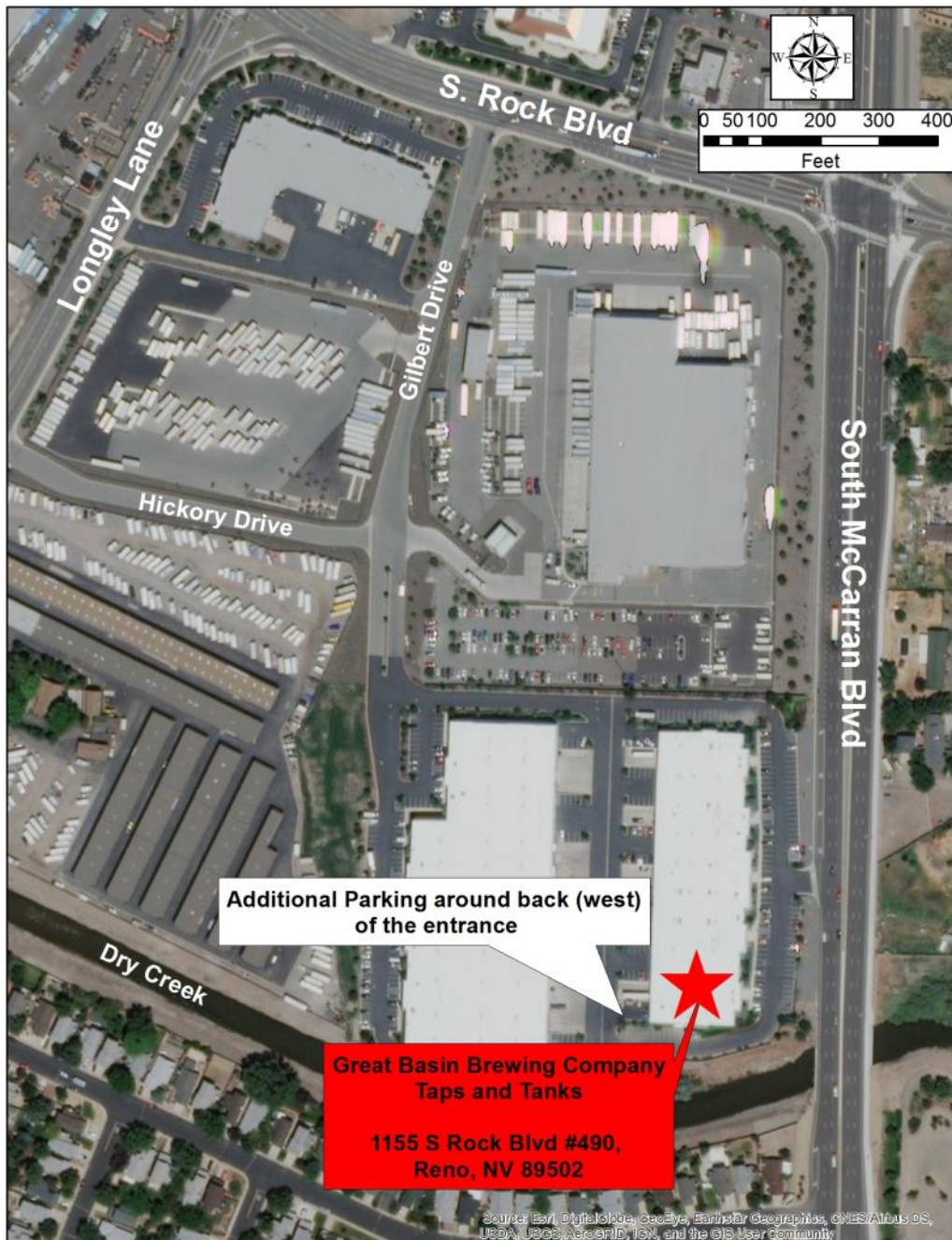
There has been limited research on these Carlin-style deposits. An exception is the Cove distal disseminated deposit where Johnston et al.'s (2008) detailed study demonstrated both polymetallic and proximal Carlin-style mineralization, which led them to conclude that Cove represents a continuum between magmatic-hydrothermal systems and Carlin-type gold deposits in Nevada. New research utilizing recent deep drilling (Muntean et al., 2017) clearly shows Carlin-style mineralization overprints earlier polymetallic mineralization. The recent drilling also shows the Carlin-style mineralization is strongly zoned. The Ag/Au ratios of zones of Carlin-style mineralization and the Ag concentrations of pyrite decrease from the CSD zone underneath the open pit towards the Helen zone located 3 km to the northwest. Arsenian pyrite associated with Carlin-style mineralization in the CSD is coarser grained, euhedral, and becomes much finer grained with narrow arsenian rims in the Helen zone, very similar to the pyrite textures seen in the large Carlin-type deposits. The Kinsley deposit in eastern Nevada, shows very similar zoning features away from an Eocene intrusion. Over a distance of ~3 km, proximal W-(Mo) skarn adjacent to the intrusion zones outward to polymetallic quartz veins/mantos and distal Carlin-style mineralization that locally overprints polymetallic mineralization (Hill, 2016). The overprinting of polymetallic mineralization by Carlin-style mineralization at Cove and Kinsley could be the result of a separate later hydrothermal system. Alternatively, the zoning at Cove and Kinsley represent telescoped systems, where exhumation by erosion or by faulting led to the overprint.

Other Carlin-style deposits, mainly in eastern Nevada, have epithermal characteristics and appear to have formed at much shallower depths than the large Carlin-type deposits. Nutt and Hofstra (2003) pointed out many features at Alligator Ridge deposit consistent with formation at depths of <300 to 800 m, as did Ressel et al. (2015) for deposits in the Northern Pinon Range. The features include higher Ag/Au ratios, jigsaw mosaic quartz and feathery chalcedonic jasperoid suggestive of <180°C, hydrothermal breccias, and Eocene lacustrine sediments with elevated As, Sb, Tl, and Hg. Quartz after lattice-textured calcite is present at the Gold Point deposit, where Castor and Hulen (1996) reported electrum occurring in banded quartz that filled matrices of brecciated stratiform jasperoid. The absence of the Roberts Mountain thrust in eastern Nevada is likely the main factor for the increase of epithermal characteristics. Where present the Roberts Mountains thrust and contractional deformation in the lower plate carbonates played a major role in forming the large Carlin-type deposits, by diverting upwelling hydrothermal fluids out of high-angle faults and into reactive carbonate rocks. In the absence of such a thrust in the upper crust, as in eastern Nevada, hydrothermal fluids rose toward the surface and interacted with increasing amounts of groundwater, resulting in extensive jasperoid formation.

DIRECTIONS TO NEW RENO LOCATION FOR FEBRUARY 15th MEETING!!!

Directions to “Taps & Tanks” in Reno

To find in google or apple maps just key in Great Basin Brewing Company (Taps and Tanks). The address is 1155 So. Rock Blvd #490, Reno, NV 89502 **but the entrance is actually on McCarran just south of Pembroke/Rock**. If you are coming from I-80 take the E. McCarran Exit, Exit 19 and go south. Taps and Tanks will be on the west side of the road about 4 miles down. If you are coming from down south it is fastest to take Exit 61 for south Virginia Street then take Longley Lane (NE) to Rock Boulevard (East) then turn south onto S. McCarran Blvd. Taps and Tanks will be on the west side of the road. Doors will open at 6:00 pm as usual with dinner at 7:00 pm and talk will begin at 7:45 pm.



“FACES OF GSN”

JoAnn Newbury, Reno, Nevada

The class motto from a Reno High School graduating class sometime in the Paleozoic Period: *Order is against the grain of our minds; we prefer to follow the straggling lines of fantasy, and to weave our philosophy precariously out of our dreams ~ Baric Spinoza.* That quote spoke to me, I adopted it as my life plan. Good choice. It's been an amazing ride. I wouldn't change a thing.

Six generations on my dad's side of the family are native Nevadans. I am not one of them—but I should be. My parents lived in Tonopah, but my mother, who referred to the town's only doctor as “the vet,” decided we would both be better off if I were born in California. I didn't agree, but what was a girl to do? Off we went to Auburn. We came home to Nevada when I was two weeks old. According to the old-timers, I may not have been born there, but I'm an honorary Tonopian. I'm definitely a Nevadan at heart. Besides Tonopah, I've lived in Henderson, Boulder City (yes, I watched the mushroom clouds from the atomic bomb tests from the back porch), and Las Vegas. My mother moved my sister and I to Reno when I was eight.



After high school, I relocated to Salt Lake City to attend the University of Utah. Goal: psychologist. Note: to my mother's everlasting despair, I learned to talk while living away from home. I struggled through chemistry. When my advisor said, “You will take Physics next semester,” I decided college was not for me. I turned to the trade school section of the Yellow Pages, and, in an atypically practical moment, looked for a course of study which would allow me to make the most money in the least amount of time. Diesel mechanics and computer programming were the best options. I earned a degree in programming, which, after seven years with First (National) Interstate Bank, enabled me to move into the job of documentation specialist/regional technical writer. I had the distinction nine years later of being the first person laid off when the decision was made to move data processing to Arizona.

I came to the mining industry naturally. My maternal grandfather was a welder who followed the mine trail through the Comstock and the gold country. My fraternal great-grand father was a hoist engineer at the Old #1 Mine in Pioche. My dad's father and stepfather both worked as underground miners in Nevada and California (his stepfather was chased out of Nevada City for high-grading at the Empire Mine; we're real proud of that—or not). My dad nearly lost his right arm at 17 in a blasting accident while working at Northumberland. I think the same doctor who did *not* deliver me, saved that arm.

I got my first real job in exploration through Hot August Nights. The Secretary of the Board of Directors owned a secretarial service where I did some fill-in work. One of her clients was a contract geologist. When I needed to go back to work full time, he sent me to Geotemps. I was assigned to Phelps Dodge for two weeks to temp while they interviewed for a secretary. However, the folks at Phelps Dodge liked me and I liked them, so they hired me. It was a great place to work.

I stayed at PD until it became apparent the bottom was dropping out of the gold market. Anybody been there before? I applied for and accepted a job as Membership Development Director at KUNR radio. Did I mention I really hate opera? Four years later, I got an opportunity to work full-time in the entertainment business. I had been with Hot August Nights for six years and loved (almost) every minute of it, so I jumped at the chance. Both my parents had a conniption, but I decided that doing something I loved was worth the risk. I booked entertainment (e.g., the Righteous Brothers, Beach Boys, Elvin Bishop, Asleep at the Wheel, and Charlie Daniels) and produced events: Harley Davidson shows (e.g., Street Vibrations, Milwaukee Mile, Palm Springs Bike Week), car shows, auctions, private parties, a stage show (The Blues Brothers Rockin' Blues Review at Harvey's Tahoe) and parades. I also herded hungover roadies, loaded, unloaded and (continued on page 6)

Faces of GSN-Newbury (cont. from page 5)

drove trucks, picked up more trash than Waste Management and cleaned porta-potties. After twelve years, the “also” part of the job convinced me there must be a more glamorous way to make a living. And there was.

I went to work for Bob Felder as office manager at New West Gold (later Fronteer). I stayed until they asked me to move to Elko. I said, “Too big to have any charm, too small to have any amenities.” I commuted while helping Fronteer establish their new Elko headquarters, then did contract work for them out of my home for a year. When Newmont bought Fronteer, I hit the highway again to help launch Pilot Gold.

Debbie Struhsacker convinced me to join GSN when I realized my job at Fronteer was coming to an end. I learned that Roger Steininger was planning to open a proper office for NuLegacy Gold. I knew Roger from Phelps Dodge, so at every GSN meeting, I reminded him that I was soon going to be available. I finally wore him down. He threw up his hands, and hired me to manage the office. Roger has since retired; I’m still with NuLegacy. It’s good to be part of a dynamic team with a great property. I look forward to going to work in the morning.

As part of my job as NuLegacy’s Community Liaison Officer, NV, I attend GSN meetings in Reno, Elko and Winnemucca. I belong to the American Association for Professional Landmen, Nevada Landman’s Association, Society of Economic Geologists, Women’s Mining Coalition and Women in Mining, so I meet all kinds of interesting and dedicated mining professionals. I am Chair of the Registration Committee for the 2020 GSN Symposium (same as the 2015 event). I serve as Secretary and Director of Administration for the Nevada Mineral Exploration Coalition, a group whose mission to keep mineral exploration alive in Nevada I strongly support.

I’m a swimmer; I’m training for the long-distance swim competition in the Senior Olympics (not really, but it’s a great story). I own my own cross-country skis (actually true). In my copious amount of spare time, I make porcelain dolls, some have won awards. I write short stories. And poetry: haiku, tanka, and cinquain are my favorites. I like to travel; my idea of the ideal vacation is to drive 400 miles a day, stopping every 25 feet to take a photo. I have recently purchased a web domain (fivesyllables.com), and plan to create a blog for my writing/photography projects. Hopefully, the blog will be up before I lose interest.

Mostly, I love exploring the desert. Visiting every ghost town and old mine site in the NDOT Road Atlas index is on my bucket list. I should live so long!



GSN SOUTHERN NEVADA CHAPTER MEETING

THURSDAY, FEBRUARY 7, 2019

Location: LAS VEGAS NATURAL HISTORY MUSEUM

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

Speaker: Chris Baker, MP Minerals

Title: “MP Materials and The Mountain Pass Mine: A Geological and Environmental Perspective”

Food and Drinks Sponsored by: GSN IS BUYING!

Also, please come by to meet some of your GSN Board of Directors this month!

GSN WINNEMUCCA CHAPTER MEETING

WEDNESDAY, FEBRUARY 13, 2019

Location: The MARTIN HOTEL, 94 Railroad St., Winnemucca, NV

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

Speaker: Max Baker, Integra Resources

Title: “The DeLamar – Florida Mt. – War Eagle Silver-Gold Epithermal District, Idaho. A Brief History and Exploration Update.

Food and Drinks Sponsored by: GSN IS BUYING!

Abstract:

**The DeLamar – Florida Mt. – War Eagle Silver-Gold Epithermal District, Idaho.
A Brief History and Exploration Update.**

The DeLamar-Florida Mountain-War Eagle gold silver district is located in the Owyhee Mountains of southwest Idaho. Between 1863 and 1914, the district produced over 1 million ounces of gold and 60 million ounces of silver from high grade underground veins and associated placers. DeLamar was opened again in 1977 and continued as an open-pit operation until 1999 when Kinross closed the operation due to the low price of gold and silver leaving behind a global resource of over 2 million ounces of gold and 100 million ounces of silver. This open-pit operation produced 874,500 ounces of gold and 50 million ounces of silver at an average grade of 1.2g/t Au and +75g/t Ag. Integra Resources Corp. purchased DeLamar and Florida Mt. in late 2017.

The mineralization is typical volcanic-hosted, low-sulfidation type of epithermal style and is hosted within rhyolites, latites and basalts of the Mid Miocene Columbia River Province. The mineralization is spatially and temporally related to composite flow domes which have been emplaced along north-northwest trending structures. Two styles of gold-silver mineralization have been recognized; 1) relatively continuous, quartz-filled fissure veins that were the focus of the historic underground high-grade gold-silver mining, and 2) broader, bulk-mineable low-grade gold-silver zones of closely-spaced quartz veinlets and quartz-cemented hydrothermal breccia veinlets. This second type of typically low-grade gold and silver mineralization was bulk mined in the open pits of the late 20th century DeLamar and Florida Mountain operation.

GSN ELKO CHAPTER MEETING

THURSDAY, FEBRUARY 21, 2019

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

Time: Appetizers & Drinks @ 6:00 p.m., Talk @ 7:00 p.m.

Speaker: Melanie N. Newton, Gold Standard Ventures

Title: “Geology of the Dark Star Gold Deposit: Carlin-style Mineralization, the Railroad-Pinion District, Carlin Trend, Nevada”

Food and Drinks Sponsored by: GSN is BUYING in APPRECIATION OF ALL OUR GENEROUS SPONSORS!

Abstract:

Geology of the Dark Star Gold Deposit: Carlin-style Mineralization, the Railroad-Pinion District, Carlin Trend, Nevada

Melanie N. Newton *, Don Harris, Robert J. Edie, Michael T. Harp, Mac R. Jackson, Steven R. Koehler and Mark Laffoon

Gold Standard Ventures., P.O. Box 1897, Elko, NV 89801

ABSTRACT

The Dark Star gold deposit, is located on the Carlin Trend, within Gold Standard Ventures Railroad-Pinion project. Dark Star gold mineralization is hosted in Pennsylvanian-Permian bioclastic debris flow conglomerate, part of a shallow marine shelf sequence. These host rocks are considered atypical to the older Carlin shelf-slope carbonate assemblage. At North Dark Star, mineralization is associated with a NNE-trending syncline and the north-striking, east-dipping Ridgeline fault, with mineralization offset by crossing WNW structures. Mineralization at Main Dark Star is stratigraphically controlled within the west-dipping debris flow conglomerate. The oxidized Dark Star deposit is potentially minable via a shallow open pit.



NEWS FROM THE FOUNDATION

By Cami Prenn, GSN Foundation Chair

It seems early to focus on spring but it's right around the corner and one thing we can count on is warmer weather for field season. With field season looming we also know that Field Camp will be coming up for UNR students. Dr. John McCormack confirmed at GSN's January meeting that there will be 10 to 12 students expected to attend Field Camp this year. The Foundation will be rolling out the applications and starting that process soon. In recent years that program has become the single biggest budget item for the Foundation and our income hasn't been as great as in past years.

GSN's generous donors have consistently supported Geology students over the years in many ways; the student dinner fund and the student field trip fund with GSN directly. The Foundation scholarship donations have been tremendous and the K-12 field trips are also well funded. We have requests for mapping support at NBMG and have budgeted for that, although at a lower level than requested. With the high cost of Field Camp (~\$3,500) and students not being able to work summer jobs because of being at Field Camp, we try to award scholarships that will make a real difference to the students.

I'd ask that GSN members consider donating to the Foundation Field Camp program. The accounts GSN keeps for student dinners and field trips currently have over \$13,000 and \$22,000 respectively, and grow every month. Again, our members are incredibly supportive of the Geology educational pipeline and we thank you for every dollar. Those extra dinners that are paid for every month to benefit a student are piling up. If you'd like to redirect your monthly donations to the Foundation's Field Camp scholarships, that can easily be done at the monthly meetings. Those \$25 donations add up and can make a real difference to students about to enter the full-time work force as Geologists!

Brian Morris Scholarship Fund

We want to update you on the status of Brian's Scholarship Fund. We're happy to report that the balance in the Scholarship Fund is \$31,628. We're still working out the details of administering the scholarship with Brian's family and close friends. We'll keep you posted as details emerge. Thank you generous donors!

Please Donate to Field Camp 2019!



THANK YOU

Peter (Pete) Hahn

October 12, 1934 - January 7, 2019



Peter (Pete) Hahn passed away January 7, 2019 after a courageous battle with cancer. He was born October 12, 1934 to Stewart and Aileen (Gregory) Hahn. He is survived by his wife Sandra Lueck Hahn and 5 stepchildren. Peter received a Masters of Science Degree from Stanford University. He loved his lifelong work as a Geologist and rail fan and garden railroad builder. He belonged to South Mountain Christian Church in South Jordan and was a follower of Jesus.

A memorial service will be held at a later date in Ely, Nevada. Online condolences may be shared at www.jenkins-soffe.com.

“And ever has it been that love knows not its own depth until the hour of separation.” Kahlil Gibran

You can also read Peter’s “Faces of GSN” writeup on our website: <http://gsnv.org/about/faces-of-gsn.php?face=phahn>

Thank you to our generous Sponsor for the Winnemucca Meeting in JANUARY!

Thank you to our generous Sponsors for the Elko Meeting in JANUARY!



borehole geophysics / hydrophysics



Thank you to our generous donors in January

G.S.N. FOUNDATION

PLATINUM DONORS \$1,000+

GOLD DONORS \$500-\$999

Ralph Enos

SILVER DONORS \$100-\$499

Opal Adams

BRONZE DONORS \$1-\$99

Matt Banta

William Berridge

Jonathan Brown

Elizabeth Jones Crafford

Connor Hansen

Fred Holabird

G.S.N. Student Field Trip Fund

(This fund covers the registration costs for college students who wish to go on the GSN field trips each year)

Glenn Asch

William Berridge

Paul Kuhn

Linda Sheehan

G.S.N. Student Dinner Fund

William Berridge

Edward Orbock

Thank You!

Elko Lions Club Camp Lamoille Rebuild



As most of you are already aware, the beautiful Lamoille Canyon near Elko burned in a wild fire this Fall. Not only did we lose one of the most scenic recreational areas in Nevada, the Elko Lions Club lost a good portion of "Camp Lamoille" where the NMEC holds it's annual Rendezvous. Below is a letter addressed to one of our members, Lynne Volpi, in Elko. We thought some of you might be interested in the story sent to her by the Elko Lions Club Chairman. The letter includes information on how to donate to the camp rebuilding effort if you would like to.

.....
Lynne,

Thanks for your interest and concern. As you know with the destruction of multiple buildings including the historic Whipple Lodge, we are facing a daunting task to restore the camp back to it's former glory or better. We are estimating a cost in excess of \$1 million dollars to make this happen. To which we have begun our quest already. To date we have accumulated approximately \$160,000 in cash donations, along with our insurance claim settlement of another \$150,000 which brings our total funding for recovery to \$310,000. Additionally we have multiple pledges of in kind services to aid in the rebuilding process.

Elko Lions Club has setup a couple of different donation vehicles for the Camp Lamoille recovery and rebuilding project.

Donations can be made locally in person at Elko Federal Credit Union (Lions Club Camp Lamoille), donations to this account are not tax deductible.

Donations can also be made by cash, check or credit card, either online at <https://nevadafund.org/camp-lamoille-recovery-fund/> or by mail to, Camp Lamoille Recovery Fund at CFNW, 50 Washington St., Suite 300, Reno, NV 89503. These donations are tax deductible.

Thank you again for your support

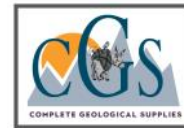
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Chairman - Elko Lions Club Camp Lamoille
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We Appreciate Our Sponsors!!

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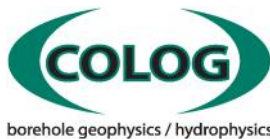
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WILLIAM (BILL) HOWALD
formerly Rye Patch Gold



Activity Update

Mike Brady, December 2018

www.activityupdate.com

NEVADA

Fiore Gold Ltd. announced that based on recent studies at the Pan Project, resources aggregate 27,609,000 tonnes @ 0.49 gpt Au measured+indicated and 7,580,000 tonnes @ 0.45 gpt Au inferred. (reserve = 19,004,000 tonnes @ 0.51 gpt Au proven+probable) *Press Release:* December 3

Coeur Mining Inc. announced that recent drill results at the Rochester Project include 91.44-103.63 meters @ 27.3 gpt Ag, 0.07 gpt Au (ROCR18-1034); 134.11-164.59 meters @ 27.3 gpt Ag, 0.03 gpt Au (ROCR18-1035); 39.62-48.77 meters @ 44.4 gpt Ag, 1.02 gpt Au (ROCR18-1037) and 131.06-167.64 meters @ 13.6 gpt Ag, 0.17 gpt Au (ROCR18-1039). (reserve = 222,549,000 tonnes @ 0.10 gpt Au, 18 gpt Ag proven+probable) *Press Release:* December 12

Coeur Mining Inc. announced that recent drill results at the Daisy Project include 56.39-57.91 meters @ 0.68 gpt Au (D18-09); 204.21-222.5 meters @ 1.36 gpt Au (D18-10); 143.25-155.45 meters @ 4.44 gpt Au (D18-11) and 118.87-132.59 meters @ 1.02 gpt Au (D18-13). (resource = 2,556,000 tonnes @ 2.12 gpt Au inferred) *Press Release:* December 12

Coeur Mining Inc. announced that recent drill results at the Secret Pass Project include 152.86-224.18 meters @ 1.71 gpt Au (SP18-03C); 196.6-234.7 meters @ 1.02 gpt Au (SP18-17); 181.35-234.7 meters @ 0.68 gpt Au (SP18-19) and 173.74-185.93 meters @ 0.68 gpt Au (SP18-20). (resource = 3,534,000 tonnes @ 1.65 gpt Au inferred) *Press Release:* December 12

Coeur Mining Inc. announced that recent drill results at the SNA Project include 91.44-99.06 meters @ 3.07 gpt Au (SNA18-12); 42.67-64.01 meters @ 1.02 gpt Au (SNA18-13); 35.05-47.24

meters @ 1.36 gpt Au (SNA18-18) and 106.68-123.44 meters @ 1.02 gpt Au (SNA18-22). (resource = 1,510,000 tonnes @ 1.61 gpt Au inferred) *Press Release:* December 12

Thor Mining plc. announced that based on recent drill results at the Desert Scheelite/Pilot Mountain Project, resources aggregate 9,010,000 tonnes @ 0.26% WO₃, 20.7 gpt Ag, 0.15% Cu, 0.41% Zn indicated and 1,690,000 tonnes @ 0.25% WO₃, 12.2 gpt Ag, 0.16% Cu, 0.19% Zn inferred. (was 8,410,000 tonnes @ 0.27% WO₃ indicated and 3,320,000 tonnes @



Welcome to the fourth edition of the Discoveries Mining Conference to be held at the Mazatlán International Center in Mazatlán, Sinaloa April 2 – 4, 2019.

CONFIRMED SPEAKERS:

Ted Theodore

Kent McGrew

Mike Rosko

Charles Funk

Don Hulse

Dustin VanDoorselaere

Craig Gibson

Josh Pelletier

Tony Gillman

Alberto Silva

Click on the link for more information:
<https://www.discoveriesconference.com/>

Ecuador's rising opposition to mining may thwart exploration boom

Reprinted from Mining.com—[Cecilia Jamasmie](#) | Jan. 6, 2019, 6:50 AM |

Ecuador, one of the hottest destinations for copper prospectors, aims to more than double the value of mining to its economy by 2021, but projects risks delays and potential halts due to growing local opposition to the extraction of the country's resources.

According to the latest report by *Fitch Solutions Macro Research*, the ongoing expansion of mining exploration in the South American country is raising the risk of tensions between companies and the local population.

In two landmark cases last year, Ecuadorian courts sided with rural and indigenous communities who argued the national government had failed to inform them it was setting aside parts of their territories for mineral exploitation. That, *Fitch Solutions* notes, is a right protected by the 2008 Constitution.

In two landmark cases last year, local courts sided with rural and indigenous communities who argued Ecuador's government had failed to inform them it was setting aside parts of their territories for mineral exploitation.

A judge in the Sucumbios province, near Colombia, banned mining activity in 52 concessions, and banned another in the southern province Azuay; a gold-silver project called Rio Blanco, owned by China's Junefield Resources.

The Rio Blanco case sparked encouragement for a new lawsuit from the Cotacachi government against the Ecuadorian government for granting concessions in Los Cedros, part of the Intag Valley, without prior consultation. In November 2018, the local government requested an injunction on mining activities.

"Projects throughout the country could be at risk of delays and potential suspensions should it come to light that mining concessions were granted in a similar fashion (without prior consultation)," the report warns.

In recent decades, the Intag Valley has seen some of the sternest opposition against mining in Ecuador, a country rich in gold and other minerals in addition to copper.

Since 2008, an estimated 1.8 million acres of the nation's protected forests have been made available for mining exploration, according to the Rainforest Information Centre, an environmental non-profit based in Australia.

The state has the right to extract minerals regardless of whose land they are located under, according to the constitution and Ecuador's national mining plan. However, projects in protected forests are subject to strict environmental standards supervised by the Ministry of Environment.

Riskier than neighbours

The higher risk of operating in Ecuador will sustain the trend of junior miners leading exploration in the country, *Fitch Solutions* predicts.

"Industry heavyweights will take less risky positions by entering into joint ventures or investing in juniors to gain exposure to projects as they progress down the pipeline," the report says.

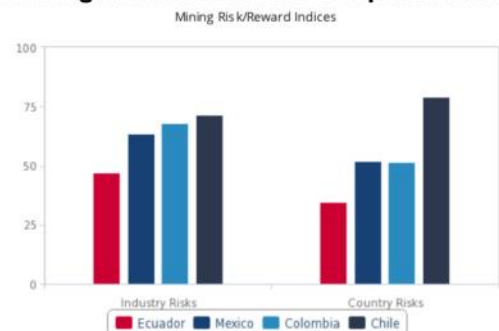
An example of such a trend is the Cascabel copper-gold project, owned by junior SolGold (LON, TSX:SOLG). Both [BHP](#) and [Newcrest Mining](#) have increased their share positions in the miner [to gain exposure to the potentially world class project](#).

As mining projects face headwinds from rising tensions, the courage of investors will be tested, the analysts conclude, which could thwart Ecuador's plan to attract \$4 billion in mining investments by 2021.



Both BHP and Newcrest Mining have increased their share positions in SolGold to gain exposure to the potentially world-class Cascabel copper-gold project, in Ecuador's north. (Image courtesy of SolGold.)

Raising risks for Ecuador's exploration rush



Fitch Solutions Risk/Reward Index. 100 = Lowest Risk. 0 = Highest Risk.

Courtesy of Fitch Solutions Macro Research.



2018-2019 Jahn's Lecturer

Thursday - February 7th, 2019

SPEAKER: Deborah Green

TITLE: "A Tale of Two Waste Sites"



LOCATION:
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SOCIAL HOUR: 5:15PM; DINNER: 6:00PM; PRESENTATION: 7:00PM
RSVP NO LATER THAN 5PM, TUESDAY, FEBRUARY 5th

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OTHER UPCOMING EVENTS

5 February 2019 Arizona Geological Society meeting, Speaker: Jeffrey E. Post presents The Hope Diamond and Smithsonian National Gem Collection. 6 to 9 p.m. at the Sheraton, 5151 E Grant Rd. (& Rosemont), Tucson, AZ Click on the link for more info and online registration: More information and online registration: [John Dilles presents - Using the Zonation of Trace Metal Geochemistry and Hydrothermal Mineralogy for Porphyry Copper Mineral Exploration](#). Dinner closes at 11 am Friday Feb. 1st.

7 February 2019 Nevada Petroleum & Geothermal Society, Reno, NV monthly meeting. Cocktails at 6:30 PM, Dinner at 7:00 PM, Ramada Reno Hotel; 1000 East 6th St., Reno NV 89512. Speaker: Tom Young, Founder of Great Basin Brewing Co. Title: "One Man's Transition - Geology to Beer, a Logical Evolution" Please make reservations by Tuesday, February 5, 2019. [Click here for event information](#) and to reserve your seat.

11 February 2019 SME Northern Nevada Section Monthly Meeting. Circus-Circus Mandalay Room, Reno NV. Speaker and Topic To Be Announced. Happy Hour @ 6 pm, Dinner @ 7 pm. Please contact Sarah Lightner for more information at 775-746-7147 or NNevSME@gmail.com

11 February 2019 DREGS (Denver Region Exploration Geologists), Speaker: Mac Canby. Title: "Bootprints in bear country: Geology and discovery history of the Malmyzh Cu-Au porphyry deposits, Khabarovsk krai, Russia". Social 6 p.m., Presentation 7 p.m. at Berthoud Hall, Room 241, CO School of Mines, Golden. For more info. contact James Piper at geopros@q.com

13 February 2019 2019 UNR/NWRA Dinner Forum Presented by Laura Crossey, Univ. of New Mexico, 2019 GSA Birdsall-Dreiss Lecturer. "Hydrochemistry and Geoscience Education at Grand Canyon and Beyond: Who Knew Groundwater Hydrology Could Be So Complicated?" pm, Dinner @ 7 pm. Atlantis Casino Resort, 3800 South Virginia St., Reno, NV. Register at these links: [Register Online](#) or [Mail In Registration](#). Contact Tina Triplett for more information at: creativerno@charter.net.

2-4, April Mexico Mining Center, "Discoveries Mining Conference" Mazatlán, Sinaloa, México. We are pleased to invite you to attend the fourth edition of the Discoveries Mining Conference to be held at the Mazatlán International Center in Mazatlán, Sinaloa April 2 – 4, 2019. Click on the link for more information: <https://www.discoveriesconference.com/>

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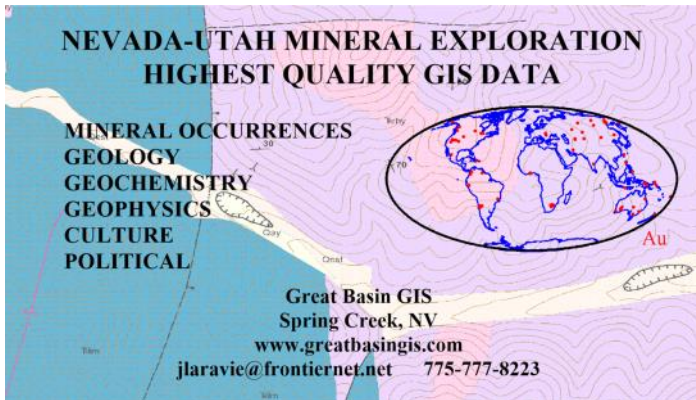
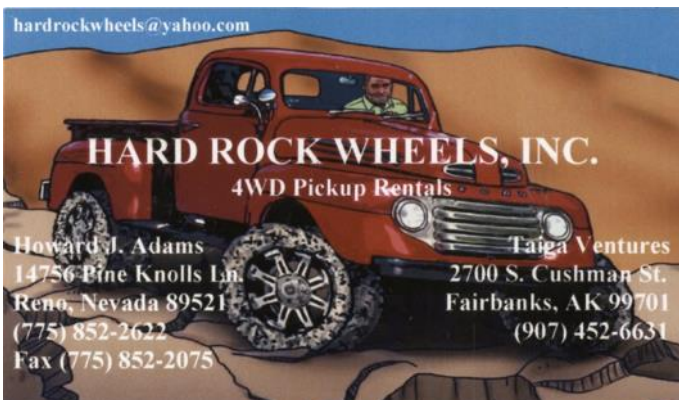
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TRAVELING GSN BACKPACK PHOTOS

(Please submit your backpack photos at any time!)

Quite a few GSN Symposium backpacks were spotted in Vancouver, B.C. last week attending the AME ROUNDUP.

I took this photo at the iconic Steam Works restaurant last Sunday near the Convention Center in Vancouver. I had lunch with Dan Pace (l), Renaissance Gold and Max Baker (r) with Integra Resources. Thanks again for lunch Max! GSN and I appreciate your generosity.

