



GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Reno, NV 89512
(775) 323-3500 - Hours Monday -- Friday, 10 a.m. to 4 p.m.
Website: www.gsnv.org • E-mail: gsn@gsnv.org



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MAY 10, 2023 WEDNESDAY

GSN WINNEMUCCA CHAPTER

The GSN Winnemucca Chapter meeting will be held at the Martin Hotel, 94 W. Railroad St. Drinks at 6 pm. Talk at 7 pm. **SPEAKER: Lauren Megaw, Head of Investor Relations, Reyna Silver; TITLE: "An Ore-Systems Approach to Exploring Reyna Silver's Medicine Springs Project in Elko Co., Nevada". SPONSOR: Geotemps/Geopros.** For more information, please contact Chapter Co-Presidents Pat Donovan at Pat.Donovan@ssrmining.com or Nancy Wolverson at: nancyjeanw@aol.com Details on pg. 4.

MAY 18, 2023 THURSDAY

GSN ELKO CHAPTER

The GSN Elko Chapter will hold their meeting at the Western Folklife Center, 501 Railroad St. Elko. **SPEAKER: Robert Kastelic, McEwen Mining. Title: "Reactivating a Historical District: Exploration and Development at the Gold Bar Mine, Eureka County, Nevada". SPONSOR: McEwen Mining.** Please contact Elko President Justin Milliard: justin.b.milliard@gmail.com for more information. Details on pg. 5&6.

MAY 19, 2023 FRIDAY

GSN REGULAR MEMBERSHIP MEETING

The GSN meeting will be held at the Hidden Valley Country Club. **SPEAKER: Peter Megaw, Consulting Exploration Geologist. TITLE: "Title: Carbonate Replacement Deposit Exploration-Nevada's CRD Renaissance and Potential". SPONSOR: HARRIS EXPLORATION An earth DRILLING Company.** Dinner cost is \$50. Please register for dinner online or RSVP at this link: [RSVP/DINNER](#) Details on pg. 3. **PLEASE RSVP BY SUNDAY, MAY 14th AT MIDNIGHT!**

June 9-11, 2023 FRI-SUN

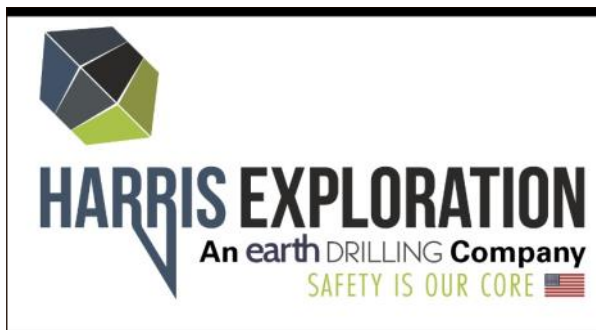
GSN Spring 2023 Field Trip, based in Ely, Nevada

TENTATIVE ITINERARY:

June 9th – Travel to Ely, NV for dinner & talk.
June 10th – Cherry Creek and Butte Valley Districts with stops at the Limousine Butte Project in the morning and the Selena Project in the afternoon. Dinner and talk at the Prospector.
June 11th – We will stop at Garnet Hill in the morning (time permitting) before we leave Ely for Eureka, NV. There we will have lunch and then visit the FAD and the original Ruby Hill Mine with i-80 Gold. (See page 6-7 for more details and registration link!)

[REGISTER
HERE!](#)

GSN MAY 2023 RENO MEETING SPONSOR



FROM THE PRESIDENT
Kel Buchanan, GSN President 2022-2023
MAY 2023



In a recent opinion piece in the Wall Street Journal, Daniel Yergin, author of “The Prize”, speculated on the possibility that by 2035, all new cars sold in the state of California will contain 2.5 times as much copper as conventional cars sold today. He concluded that while the mandate didn’t actually state that figure, it was the practical effect of ordering all cars to be electric in the next 12 years. In other words, “Net Zero” will mean a mining boom. It’s an interesting concept, provided there is sufficient supply, and it got me thinking about one of the most fascinating projects I’ve ever worked on.

Imagine drilling from a barge anchored in a lake in northern Minnesota in early winter. The Birch Lake copper deposit was not far from Ely, one of the coldest places in the lower 48, in winter. I had never experienced seeing PQ core, or trying to lift it for that matter, as this core was mostly composed of massive sulfides including PGM, nickel and cobalt minerals. Although I had read news stories of the Duluth Complex from time to time, I had no idea of the scope of the project area, its geography and its proximity to Boundary Waters National Park.

My job was to place a value on the Birch Lake deposit, owned by the Birch Lake Joint Venture (BLJV) and Franconia Minerals Corporation. That valuation later provided a floor for the sale of the Birch Lake property by Franconia to Duluth Metals in 2011 for \$75 million Canadian. The shareholders of BLJV and Franconia had concluded their sale at an opportune time. I did note at the time of writing that while there was some federal opposition to the project, state officials were much more receptive to jobs creation in northern Minnesota, and the area around Hibbing had a long history of taconite mining.

Over the intervening 12 years, the Duluth Metals/Antofagasta Joint Venture (Twin Metals) made progress in permitting, firmed up all leases, and it seemed that mining would shortly commence. With the U.S. only processing 4% of the world copper supply, this deposit could keep the U.S. competitive, in a world where two other countries hold almost half of the reserves of copper.

Daniel Yergin noted that copper production has fallen by half in the U.S. in recent decades and rejiggering supply chains won’t be easy. Government actions also matter. In 2022, the Interior Department cancelled two federal leases Twin Metals held in the Superior National Forest. Twin Metals appealed. In early 2023, the Interior Department placed a twenty-year mining moratorium on 225,000 acres of Superior National Forest, covering all the Twin Metals ground, but excluding the taconite areas. Unfortunately, “Net Zero” will be harder to achieve if there is no agreement on the push for clean energy when one is hostile to the mineral production needed to attain it.

Kel Buchanan

GSN wishes to thank the Reno April meeting Sponsor!



AND the Winnemucca and Elko April meeting Sponsors!



GSN MEETING in RENO—FRIDAY, MAY 19, 2023

GUEST SPEAKER: Dr. Peter Megaw

**TITLE: “Carbonate Replacement Deposit Exploration-
Nevada's CRD Renaissance and Potential”**

**Sponsor: HARRIS EXPLORATION, An
EARTH DRILLING COMPANY**

TIME: Drinks @ 6 pm, Dinner @ 6:30 pm, Talk @ 7:30 pm

WHERE: Hidden Valley Country Club, 3575 E. Hidden Valley Dr., Reno

DINNER COST: \$50.00 [RSVP/DINNER](#).

(PLEASE RSVP BY SUNDAY, MAY 14, 2023 at MIDNIGHT!)

Summary:

We will cover the major aspects of CRDs that impact exploration and early determination of favorability and why Nevada's known CRDs should be just the beginning.

BIOGRAPHY:

Dr. Peter K.M. Megaw *Consulting Exploration Geologist* President of IMDEX/Cascabel and co-founder of MAG Silver and Minaurum Gold. His Ph.D. work at the University of Arizona was an exploration-focused geological/geochemical study of the Santa Eulalia Ag-Pb-Zn District, Chihuahua and Carbonate Replacement Deposits (CRDs) of Mexico in general. He has published extensively on CRDs and Epithermal Vein deposits and is a frequent speaker at international academic and technical symposia. His primary exploration foci are CRDs and Epithermal Vein Deposits, which he has worked on throughout the Cordillera of North and South America, Ireland and Turkey. Peter was awarded the Society of Mining Engineers 2012 Robert M. Dreyer Award for excellence in Applied Economic Geology and the PDAC 2017 Thayer Lindsley Award for Outstanding Exploration Success for the significant discoveries made by his team at Juanicipio-Fresnillo, Zacatecas; Platosa, Durango; and Cinco de Mayo-Pozo Seco, Chihuahua.





GSN WINNEMUCCA CHAPTER NEWS



Please join us for the
Winnemucca GSN May Meeting

Wednesday, May 10, 2023

The Martin, 94 W. Railroad St.
Food and Drinks at 6 pm
Talk at 7 pm

Speaker: Lauren Megaw, Head of Investor Relations, Reyna Silver

Talk: *“An Ore-Systems Approach to Exploring Reyna Silver’s
Medicine Springs Project in Elko Co., Nevada”*

FOOD AND BEER SPONSOR:



BIO:

Ms. Megaw recently joined the Reyna Silver team. She grew up collecting and studying mineral specimens, which led to her studying Geology at Stanford University. Prior to joining the Reyna Silver team, Ms. Megaw surveyed historic mining districts in Hunan Province, China using the Carbonate Replacement Deposit exploration model. She now works with the Company’s technical team on the Guigui and Batopilas projects in Chihuahua, Mexico and the Medicine Springs project in Nevada; focusing on communicating technical information to investors in her role as Head of Investor Relations.

If you have any questions, contact Nancy Wolverson at nancyjeanw@aol.com or 775-770-4615

G.S.N. WINNEMUCCA CHAPTER OFFICERS FOR 2023-2024

PRESIDENT:	Kris Alvarez, i-80 Gold Corp
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GSN ELKO CHAPTER NEWS



The Elko GSN Chapter is excited to have Robert Kastelic, Chief Exploration Geologist of McEwen Mining Inc at our May meeting at the Western Folk Life Center on Thursday May 18th. Robert will be presenting on the Exploration and Development of the Gold Bar Mine. The event is graciously hosted by McEwen Mining.

As this is the last meeting for the current GSN Elko Officers, I want to express my gratitude and our members gratitude to **Andrew Belot (Membership Chair), Adele Berg (Treasurer) and Allison Mastenbrook (Secretary)** for their service and stepping up for multiple years of volunteer service to keep the Elko Chapter running. GSN meetings and the colleague comradery of these monthly events is not possible without a group of volunteers to put the meetings together each month. Please thank the outgoing officers and the **incoming officers (Luke Schranz – President, Sergey Konyshev – Vice President, Alexandria Monroe – Treasurer, Philip Zirbes – Secretary, & Chris Mack – Membership Chair)** when you see them. Your service is the lifeblood of GSN.

Lastly we would like to proudly announce the recipients of the Elko Chapter Scholarship. \$1,500 is being awarded to each of these students. Funds are raised during our Xmas Party Silent Auction and those funds are matched from the GSN Foundation.

Emily White: PhD student at Texas A&M. Petrogenetic Evolution and Exhumation Histories of Jurassic–Eocene plutons in the Northern Great Basin: Impacts on Carlin- and Porphyry-Type Deposit Models

Grace Cauble: BS student at UNR. Double major in geology and mining engineering.

Marcus Angus: MS student at UNR. Constraining Mineralization and Alteration Through New Geologic Mapping at Spring Peak Low-Sulfidation Epithermal System

Silas Goetz: MS student at UNR. Characterization of the Gold Hill low-sulfidation epithermal vein system, northern Nye county, Nevada

Thursday, May 18, 2023

Western Folklife Center, 501 Railroad St., Elko, NV

Food and Drinks @ 6 p.m., Talk to begin @ 7 p.m.

FOOD & BEER SPONSOR:



**Presenter: Robert Kastelic, Chief Exploration Geologist at
McEwen Mining**

Title: “Reactivating a Historical District: Exploration and Development at the Gold Bar Mine, Eureka County, Nevada”

Abstract:

The Gold Bar District, controlled by McEwen Mining Inc (McEwen), is referred to here as Gold Bar. The Gold Bar District contains several deposits, including the original Gold Bar mine operated by Atlas Precious Metals. The deposits are aligned along a 12-kilometer-long west-northwest trend and are currently under exploration, development and mining by McEwen. They are hosted in the lower to middle Devonian Denay and McColley Canyon Formations, a slope-facies turbidite and debris-flow carbonate sequence overlying the massive and thick Silurian Lone Mountain dolomite. The siliciclastic upper Devonian Horse Canyon Formation is also a gold host in the Gold Bar District. Four deposits, Gold Ridge, Gold Pick, Cabin Creek and Gold Bar South are being developed and mined as one operation that contains a probable reserve of 370,000 oz Au with an average grade of 0.82 ppm. Commercial production consisting of an oxide heap-leach operation began in May of 2019. Mining from several deposits in the Gold Bar District in the 1980’s and early 1990’s produced a total of 543,000 ounces of gold at an average (continued on page 6)

GSN ELKO CHAPTER NEWS (CONT.)

(Kastelic abstract, cont. from page 5)
grade of 2.6 ppm.

The project lies along the Battle Mountain-Eureka Trend, on a regional, high-displacement, NNW-trending fault system that extends some 60 km from the Cortez District south to Gold Bar, separating lower plate carbonate rocks on the east from upper plate siliciclastic rocks on the west. Slope-facies lower plate carbonate rocks have been deformed into a broad ESE-plunging anticline, with many of the known gold deposits generally aligned with the axis of the fold. Lithology is a control to mineralization, within which high-angle NNW- and ENE-trending faults and fractures control the geometry of the mineralized zones. Igneous rocks in the district consist of Tertiary basaltic dikes and flows associated with the Northern Nevada Rift (NNR), although mid-Jurassic zircons were found in a Miocene diabase dike in a deep core hole beneath the Gold Pick deposit. A large intrusion 1.5 to 2 km beneath the district has been inferred from magnetic data.

Recent outcrop and pit mapping, drilling, core logging, geophysics, downhole spectral and isotope analyses and 3-D geologic modeling have shown that east-directed low-angle compressional features and later high-angle extensional tectonics have influenced ground preparation and subsequent mineralization to a much more significant degree than realized before mining started. While the deposits are strata-bound within favorable host rocks, the degree of structural control found during mining has required that the model be significantly revised. The current models correlate much better with blastholes and are important in guiding the continuing exploration of the Gold Bar District.

SPONSOR'S COMPANY INFO: <https://mcewenmining.com/>

Our Goal Is to **Improve** the **Productivity & Life** of Our Assets, With the Objective to **Increase** the **Share Price & Provide** a **Yield**.

GSN Spring 2023 Field Trip—June 9-11th

The 2023 GSN Spring Field Trip will visit the Cherry Creek and Butte Valley Districts in eastern Nevada on Saturday, making stops at the Limousine Butte and the Selena Projects. On Sunday we will visit Garnet Hill outside of Ely before heading to Eureka and visiting the FAD shaft and the old Ruby Hill mine. We will have dinner and a talk on both Friday and Saturday nights at the Prospector in Ely, NV. Accommodations will be at the Ramada Copper Queen and the Bristlecone Motel.

TENTATIVE ITINERARY:

June 9th – Travel to Ely, NV. Dinner and talk at the Prospector. Check in at Copper Queen with overflow rooms at the Bristlecone Motel.

June 10th – Carlin-type and Porphyry mineralization with potential for CRD mineralization in the Cherry Creek and Butte Valley Districts in the Cherry Creek Range. We will make stops at the Limousine Butte Project in the morning and the Selena Project in the afternoon. Dinner and talk at the Prospector.

June 11th – We will stop at Garnet Hill in the morning (time permitting) before we leave Ely for Eureka, NV. There we will have lunch and then visit the FAD and the original Ruby Hill Mine before returning to Reno.

Please contact the field trip leader Tony Gesualdo with questions. anthony.gesualdo@gmail.com. You can also contact Laura Ruud at the GSN office, either by phone or e-mail: gsn@gsnv.org; 775-323-3500. See page 7 for registration form and link to online registration.

**Member Prices are: Single \$475, Double \$375, No Room \$275
(Non-members please add \$50 to each price.)**

PRINT THIS FORM TO PAY WITH A CHECK



Geological Society of Nevada (GSN) Spring 2023 Field Trip Friday, Saturday & Sunday, June 9, 10, & 11, 2023 Cherry Creek Range and Ruby Hill, eastern Nevada



TENTATIVE ITINERARY:

Friday, June 9, 2023

11:30 am - Check-in at GSN office, 2175 Raggio Parkway, Reno

12:00 pm - Depart for Ely, Nevada

5:15 pm - Check in at Bristlecone and Copper Queen Ramada Motels

6:00 pm - Happy hour, dinner and talk.

Saturday, June 10 2023

Breakfast on your own.

8:30 am - Depart Ely, NV for the Cherry Creek District

9:30 am - Stops at Limousine Butte Project, NevGold

12:00 pm - Sack lunch provided

1:00 pm - Stops at Selena Project, Ridgeline Minerals

6:00 pm - Happy hour, dinner and talk.

Sunday, June 11 2023

Breakfast on your own.

9:00 am - Depart Ely, NV

9:30 am - Stop at Garnet Hill (optional)

12:00 pm - Lunch and talk in Eureka, NV

1:00 pm - Stops at FAD and the original Ruby Hill Mine, i-80 Gold

2:30 pm - Depart Eureka, NV for Reno, NV. 6:30 pm - Arrive at GSN building in Reno

THANK YOU TO OUR GENEROUS SPONSORS!



FORTITUDE GOLD CORP.

☐ Single

☐ Double

☐ No Room

Participant: _____

Roommate: _____

Company: _____

Address: _____

Cell # _____

Email: _____

Person to contact in case of Emergency:

Name: _____

Phone: _____

REGISTRATION COST:

- ☐ \$475 - Single Room
- ☐ \$375 - Double Room
- ☐ \$275 - No Room (or w/partner in a Single)
- ☐ \$525 - Single Room Non-Member*
- ☐ \$425 - Double Room Non-Member*
- ☐ \$325 - No Room Non-Member*
- ☐ \$0 - Student Member Helpers (limit 4)

*Non-members are encouraged to become members of the GSN in order to take advantage of the reduced Member Rates - Annual Dues are \$50/year.

Payments must be made by Wednesday, May 31, 2023
No refunds after Friday, June 2, 2023

Total amount included with this form: _____

Payment:

☐ Check

☐ Cash

☐

☐

☐

☐

Please register on the GSN website to pay with a credit card. Checks should be mailed to 2175 Raggio Pkwy, Reno, NV
<https://www.gsnv.org/events/gsn-spring-2023-field-trip/?date=1686268800>

Return form with payment to:

Geological Society of Nevada
2175 Raggio Parkway
Reno, NV 89512

Phone: (775) 323-3500; Fax: (775) 323-3599; E-mail: gsn@gsnv.org

REGISTER ONLINE HERE: [GSN SPRING 2023 FIELD TRIP](#)

“FACES OF GSN”

Dylan Baldwin, Reno, NV

I grew up in Olympia, WA, surrounded by lumberjacks, hippies, and state workers. Unaware that we had miserable weather, I spent a lot of my time outdoors, hiking, camping, and exploring mossy temperate rainforests. Partway through my second year studying aerospace engineering at the University of Washington, on my first geology field trip, I discovered that I liked the people in the geology program a lot more, and quickly changed majors. I found geology fascinating, but it wasn't until my last quarter, during an economic geology course run by Eric Cheney, that I started to have a sense of what I wanted to do professionally. Turns out, the only reason I hadn't been all that great at mineralogy was because no one had given me a context for why on earth I might need to distinguish all those minerals. But learning that knowing that covellite vs. chalcopyrite might tell me something about where to find a billion ton copper deposit made it all click.

After graduating with a BS degree in Geology, a small Alaskan company sent out a posting for summer field geologists. I sent my resume, and shockingly, was contacted for an interview. Among other things, they asked me what kind of hand lens I owned, and how I would differentiate pyrite from pyrrhotite from chalcopyrite in the field. I ask the same questions on interviews to this day, because why wouldn't you? The company, run by two members of the original WGM team that discovered and advanced the Pogo deposit to production, Jason Bressler and Tom Corbett, took a gamble on me, and I found myself stepping off the plane in June 2010 in Anchorage, with brand new Xtra-tuf rubber boots (still wearing them), orange Helly-Hansen vinyl bibs (still in my pack), and my trusty Gore-Tex raincoat (RIP).



Fig 1. On my pilgrimage to the Bonanza mine, Kennecott District, AK.

I am probably the last person in North America to have learned how to run soil sampling lines using nothing but a Brunton, clinometer, string box, and flagging. I also doubt anyone my age has had to write daily summary reports in carbon copy, make a daily field map, and record samples manually on a paper register. But those routines, and the field-craft conventions laid out in the vintage WGM field manual that was required pre-job reading, built good habits that I have yet to break.

After two years of early-stage, helicopter-supported greenfields exploration in the Goodpaster district, I felt like I had a good handle on the process of exploration (logistics, mapping and sampling, drilling, compiling data over the winter). I had no appreciation for it at the time, but working for a private company with a long-term client and a long-term vision was awesome: no press releases, no pressure to deliver immediate results, just a focus on doing good geoscience and thoroughly testing targets. However, I didn't really understand ore deposits, which was irritating, and I decided it was time to go back to school. I wasn't sure if Reno would be a good fit, but curious to see sunshine and (cont. on page 9)

outcrops, I left Fairbanks (50 degrees and rainy) for Reno (105 degrees and sunny) and started an MS degree program at the UNR CREG program. During orientation I ended up grabbing the last empty seat at a table of Nalgene-wielding, backpack-wearing, mildly sunburned folks who ended up being not only my geology grad school cohorts, but also some of my best friends I've made since elementary school.

After a couple false starts, I completed my MS thesis project on a mid-Miocene -age low-sulfidation epithermal (LSE) system in the northern Paradise Range. The goal of the project was to define volcanic-hydrothermal relationships and develop a predictive exploration model for high-grade mineralization, through the use of pretty much every single tool in the economic geology arsenal. I spent two summers bouncing between Middlegate Station (zero food poisoning incidents, hundreds of good stories), Fallon (no comment), and the back of my Subaru camping on site.

Partway through my second year, I attended a lecture by Stuart Simmons. Stuart's opening line was that the key to understanding LSE systems was to understand where your paleo water table was. I had just completed my first ore deposits course, and lacked a real understanding of what a water table was, let alone a paleo water table. Attending that talk was, in retrospect, a defining moment for me, as Stuart, completely by accident, happened to describe, in his discussion of the Waimangu, NZ geothermal system, exactly what I was seeing in the field at Bruner. The concept of ore deposits as active, complex, dynamic hydrothermal systems finally clicked for me as I saw side by side images of eruption events recorded in modern photographs and vein paragenesis. Partially because of the amazing body of research on these fantastic deposits, and partially because there is a high density of both fossil and active systems (hot springs) clustered along highway 395 (basically my summer home), my post-MS body of work has largely been focused on LSE systems.

That same year, I was lucky enough to meet my future wife, Gwen, who was a UNR hydrology grad student. We have enough common geoscience background for me to be able to talk about gold deposits for up to two minutes, before I need to become more interesting. I've learned a lot from her, and although she'd make a good explorationist, it's probably good we're diversified.

After finishing my MS degree, I tried to get as much exposure to different deposits and job tasks as I could, spending a year and a half working for several different companies in Nevada, California, and Alaska, before ending up at the Pend Oreille Mine, in Metaline Falls, WA, conducting near-mine underground exploration at an Irish-type carbonate-hosted Zn-Pb deposit. Although it was a steep learning curve, it was good for me to learn a whole new set of rocks, read new literature, and for the first time, think about how my work impacted an active mine. After seven years working in Exploration, I had, for the first time, paid vacation, and a benefits package. Aside from the beautiful setting, my favorite part about working for Teck was access to a corporate librarian, who could get me copies of any publication I wanted, no matter how obscure.

After a year and a half at Pend Oreille, the program started to wind down, I found some interim work in Winnemucca, and started looking for a way to stay in the inland northwest. Gwen and I took a gamble and moved to southwest Montana, to Dillon of all places, where I had completed my field camp exactly 10 years prior. I did my best to plug into the western Montana economic geology scene (fascinating rocks, great people, but limited job opportunities), but I needed to pay the bills and decided to give environmental geology a shot. What Montana lacked in terms of job opportunities, it more than made up for in terms of recreation. I learned to fly fish, we rafted all the rivers we could, and skied crowd-free slopes of Rocky Mountain powder. We had our wedding in Bridgeport, CA, after which I led a 40 person field trip to Bodie, complete with a lecture and annotated cross sections taped onto cases of Sierra Nevada pale ale we had emptied the night before. I'm still not sure that any of my extended family fully understand what I do for a living.

When Gwen received a dream job offer from the USGS Carson City office, it was an easy decision for me to return to Nevada. I called up some of my former colleagues and learned about a Sr. Exploration geologist posting at Round Mountain, which was academically interesting to me, but wouldn't have been quite as interesting if I hadn't hiked the Toiyabe Crest trail two years prior. My first glimpse of the massive Toiyabes and Toquimas, wrapped in late spring green, with white-capped summits and raging creeks, made quite an impression, and after spending a week on the trail I knew I wanted to come back. I started at Round Mountain in February 2020, which was, in retrospect, amazing timing.

I think it is a cliché that you "have to" work at a mine to understand how to find one, but it certainly doesn't hurt. Coming from a greenfields background, I have enjoyed examining larger data sets, drilling deeper holes, and seeing the true character of a world-class orebody from all angles. I was lucky enough to show up at the most interesting time in the 45 year mine life, as mining at both Round Mountain and Gold Hill progresses across post-mineral faults (cont. on page 10)

into the downthrown portions of the deposit, and has exposed for the first time, the true “tops” of these hydrothermal systems, below the depth of oxidation. I took over as Exploration Manager in late 2021, and just passed my third year of employment with Kinross. This was probably an inevitable outcome, given that I’ve spent most of my career working adjacent to Echo Bay properties, and am interested in more “oddball” deposit types.

I currently split my time between Round Mountain and Reno, and can navigate highway 50 virtually blindfolded. I would like this part of the world if only for the ore deposits, but it doesn’t hurt that we have staggering topography, the forests smell like vanilla, there is a surprising amount of water, and the majority of the tourist population doesn’t know a single thing about the terrain between Virginia City and Salt Lake city, or between South Lake Tahoe and Yosemite. I will always have a soft spot for the inland northwest and Alaska, but Reno feels like the perfect place for me, and we have a remarkable community of geologists. When I’m not working, I still find myself using my hand lens and exploring old mining districts, but Gwen and I try to spend as much time as possible backpacking, cycling, and fly fishing (and gold panning if I can sneak it in), in the summer, and skiing in the winter. And I do my best to keep my inventory of stringed instruments under 10.

If you made it this far, sorry for the novel. However, I thought going through my varied work history in a little more detail was a novel way to bring up an important question: how do we expect people entering this field today to sustain a career in exploration and mining? They are (despite what we may say about changing curriculums) just as smart as new grads 50 years ago, but receive a lot less mentorship, “normal” salaried job opportunities, and clear guidance on how to navigate the industry successfully. Put another way, although not everyone is a good “fit” for this industry, it seems to be a lot harder to “fit in” than it used to be. I am completely happy spending a full day on a mine dump looking for a single specimen, or gold panning downstream of a low-grade porphyry system in the middle of winter, suggesting I am probably hard-wired to be an exploration geologist. However, if I hadn’t had such a formative experience working for outstanding geologists (and human beings), I’m not entirely sure I’d still be in the industry. I think the solution, ultimately, is that we need to place greater emphasis on treating people better. It is both the right thing to do, and the smart thing to do, in an industry that thrives on new ideas, diverse perspectives, and ultimately, the camaraderie of people who want to be half-way up a cliff face together talking about rocks and wearing silly hats.



Fig. 2. J-1 vein discovery outcrop, Round Mountain. This vein, about 2 cm wide in this exposure, produced over 2000 oz Au. I’ve never really cared about the “vein” vs. “veinlet” distinction, and it turns out gold doesn’t either.

NEWS FROM THE FOUNDATION

By Cami Prenn, GSN Foundation Chair

Approaching the end of the academic year the Foundation is focused on students; first are the Geology Field Camp scholarship recipients. These six students were awarded scholarships:

Lois Kearney

Michael Knobloch

Gunner Leone

Zachery McCoy

Katie Nicholes

Audrey Topp

The students all received enthusiastic recommendations from their major advisers. We were happy to be able to award funds to all that applied. Not only will they spend six weeks in the field but they will not be able to work during that period, which makes the scholarship funds all the more valuable to them. We wish them a great experience and look forward to seeing them at future GSN events.

Next up will be the academic scholarships coming from the three endowed scholarship funds managed by the Foundation: the GSN D.D. LaPointe Scholarship, the GSN Brian Morris Scholarship, and the GSN Great Basin Scholarship. Applications are due by May 31st and selections will be made by July for use in the academic year starting in the Fall 2023. All guidelines and applications are on the GSN website.

Thank you to all of our donors; all Foundation programs are greatly appreciated by the recipients. The Foundation Board members give their time and energy to administering these programs and their participation is greatly valued. Foundation Board members are:

Richard Bedell

Kel Buchanan

Ruth Carraher

Mario Desilets

Bob Felder

Bill Howald

JoAnn Newbury

Bob Thomas

Summer will be here shortly, and we hope you all enjoy it to the fullest!

Mining Activity Update

MARCH 2023, Mike Brady

LMBrady@aol.com

NEVADA

Equinox Gold Corp. announced that it sold a 4.73% interest in I-80 Gold Corp. for gross proceeds of \$32,016,000 to now retain a 19.97% interest. *Press Release: March 7*

First Majestic Silver Corp. announced that it suspended operations at the Jerritt Canyon Mine due to continued financial losses. Processing operations will continue on stockpiled material for the next several months. *Press Release: March 20*

The government announced that it created the 506,000 acre Avi Kwa Ame National Monument in extreme southern Nevada (surrounding the town of Searchlight). *W.S.J.: March 22*

Viscount Mining Corp. announced that recent drill results at the Cherry Creek Project include 2.0-9.2 meters @ 35.1 gpt Ag (CC22-4); 210.55-211.7 meters @ 90.7 gpt Ag (CC22-5) and 202.8-204.3 meters @ 1,456 gpt Ag (CC22-9). *Press Release: February 28*

I-80 Gold Corp. announced that it acquired Paycore Minerals Inc. through a 0.68 share I-80/1.0 share Paycore exchange basis. (resource @ FAD = 2,818,000 tonnes @ 5.46 gpt Au, 9.5%

Zn, 3.7% Pb, 188 gpt Ag inferred) *Press Release: February 27*

Ridgeline Minerals Corp. announced that recent drill results at the Selena Project include 244.0-245.5 meters @ 581 gpt Ag, 0.19% Zn (SE@@-39A) and 43.6-50.1 meters @ 34.4 gpt Ag, 0.10% Zn (SE22-40). *Press Release: March 6*

Lithium Americas Corp. announced that it began the construction of the Thacker Pass Mine at a capital cost of \$2,200,000,000. *Press Release: March 2*

Allegiant Gold Ltd. announced that recent drill results at the Castle Project include 71.63-88.39 meters @ 0.39 gpt Au (ES-293); 1.52-50.29 meters @ 0.22 gpt Au (ES-294); 44.2-57.91 meters @ 0.32 gpt Au (ES-299) and 38.1-64.9 meters @ 0.28 gpt Au (ES-302). (resource = 10,160,000 tonnes @ 0.82 gpt Au inferred) *Press Release: March 14*

Headwater Gold Inc. announced that recent drill results at the Spring Peak Project include 400.99-404.2 meters @ 0.64 gpt Au (SP22-06C); 175.87-190.65 meters @ 0.93 gpt Au (SP22-07); 161.54-198.12 meters @ 0.53 gpt Au (SP22-10) and 105.16-117.35 meters @ 1.15 gpt Au (SP22-11). *Press Release: March 2*

Here are your GSN officers for 2023-2024

(Terms begin June 1, 2023)

GSN EXECUTIVE COMMITTEE 2023-2024 OFFICERS

President: Anthony Gesualdo, Lahontan Gold Corp

Vice President: Patricia Capistrant, Kinross Gold Corporation

Secretary: Steve Weiss, Consulting Geologist

Treasurer: Bob Kastelic, McEwen Mining Inc.

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Membership Co-Chair: Kaitlin Sweet, WestLand Engineering & Environmental Services

Publications Chair: Paul Fix, AngloGold Ashanti

Digital Media Chair: Peter O'Byrne, Target Synthesis

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Greg French, Nevada Copper, Inc.

David Shaddrick, Rubicon Resources

Robert Thomas, Independent Geologist

Mark Travis, Arkenstone Exploration

John Watson, Independent Geologist

EX-OFFICIO BOARD MEMBERS

Anthony Gesualdo, Current GSN President

Kel Buchanan, Immediate Past GSN President

Luke Schranz, Elko Chapter President

Kris Alvarez, Winnemucca Chapter President

G.S.N. WINNEMUCCA CHAPTER OFFICERS

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VICE PRESIDENT: Bryan MacFarlane, Hecla Mining Company

SECRETARY: Libby Witte, i-80 Gold Corp

TREASURER: Anthony Danciu, Hycroft Mining Corporation

MEMBERSHIP: JoAnn Newbury, NuLegacy Gold Corporation NV

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PRESIDENT: Luke Schranz, Project Geologist

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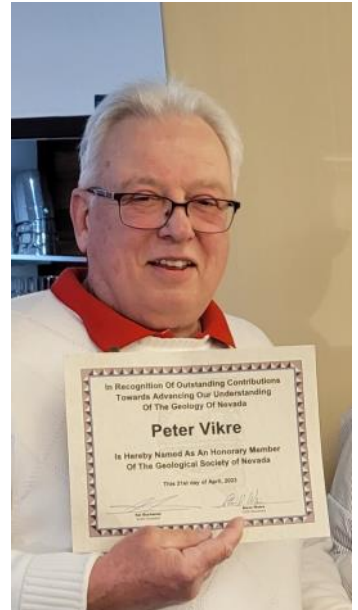
TREASURER: Alexandria Monroe, First Majestic

Membership Chair: Christopher Mack, Nevada Gold Mines

Steve Weiss announces: **GSN'S NEWEST HONORARY MEMBER**

DR. PETER VIKRE

Dr. Peter Vikre was elected on April 21, 2023 as GSN's latest Honorary Member. Dr. Vikre has made outstanding contributions to the advancement of the geological sciences in Nevada beginning with his PhD dissertation on the Rochester silver district in 1978. Including his dissertation, Dr. Vikre has carried out and published at least 15 foundational studies of precious- and base-metal districts in Nevada, from the Goodsprings and Pioche districts in the south, to the National district in the north. These also include important contributions to the understanding of the geology, hydrothermal alteration and mineralization of the western Virginia Range, Goldfield district, Como district, Eureka district, the Dixie-Comstock mine, and the Bodie Hills, as well as fluid-mineral relations in the Comstock lode. In addition, Dr. Vikre has published at least seven major studies of regional and district metal and sulfur sources, sulfide petrology and magmatic evolution in Nevada. It is worth mentioning, that Peter Vikre's contributions to Nevada geology have resulted from an admirable combination of boots-on-the-ground mapping integrated with microscopy, geochemistry and isotopic studies. His contributions have spanned a long career in industry and academia here in Nevada and have involved collaboration with students and younger geoscientists.



THE GSN PICNIC is on FRIDAY, JUNE 2nd IN RENO!

The GSN Board of Directors is happy to announce that a picnic will be held on Friday, June 2, at the Peavine Pavilion at Ranch San Rafael park in Reno, from 5-8 PM. We had a great turnout last year despite the wind. We'll provide all of the burgers, hot dogs, salads, beverages and all the usual picnic stuff, including beer and wine.

There are horseshoe pits as well as a volleyball court adjacent to the Pavilion for those interested in either of those activities. Horseshoes and the volleyballs are not supplied, however, so if someone can volunteer these items it would be much appreciated. We currently don't have a formal games program but if there are volunteers interested in organizing something by all means please contact Laura at gsn@gsnv.org.

As in past years this is a free event, but reservations are required so that we can plan properly for picnic supplies. **Please RSVP no later than Wednesday, May 31st to Laura at gsn@gsnv.org!**

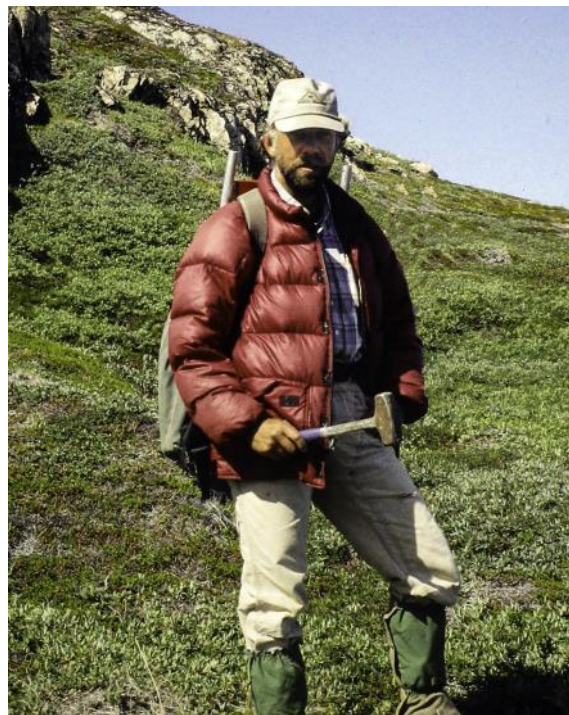
Thank you to our generous beer sponsor:



Chris Broili—April 18, 2023

I was recently notified long-time geologist and very dear friend, Chris Broili, passed away in Washington on April 18th from a long illness. Chris was a long-time member of GSN during the heyday of gold exploration in Nevada. Chris is survived by his wife Sandra, four sons and a daughter. At present no funeral or memorial service is planned.

My association with Chris began in the mid-1980s and continued into the 1990s when we both worked for Atlas Minerals. Chris is credited with the Atlas discoveries in the Roberts Mountain. Chris also brought the Grassy Mountain property in southwest Oregon to Atlas. Chris was one of the hardest working and creative geologists I have ever had the pleasure with which to work. Chris also worked for Union Carbide among numerous other companies. Chris headed up Atlas' exploration efforts in Greenland in the early 1990s and the accompanying picture was taken in Greenland. For those who knew him this picture is iconic Chris Broili. Chris was a great friend and would do anything for you. The geology profession lost an amazing geologist and a great friend to many of the old timers who knew him.



(Submitted by Richard Kehmeier, C.P.G.)

SEG Mourns the Loss of Brian Hoal

March 20, 2023



It is with profound sadness that we report the passing of Brian Hoal on the morning of March 20, 2023, after a protracted battle with cancer. He served as Executive Director for the last twenty-three years, ushering SEG into the 21st century with unwavering commitment and astute leadership. We mourn his loss and extend our deepest condolences to his wife, Karin, and their two sons, other relatives, and friends. His friendship and wisdom will be greatly missed.

Contributions and Memorials: Society of Economic Geologists

www.segweb.org/BrianHoal

A Remembrance of the Life of Radu Conelea

By Bob Felder

Radu passed away unexpectedly on April 20 at the age of 86. I had just seen him and talked to him and he was excitedly trying to engage some local experts to collaborate on informal geological field trips around the Reno area. Always thinking about geology!

Radu had a long and successful career beginning in Romania and moving to the US in 1978. I can't speak to his Romanian career but, he came to the US with a Ph.D. and an unstoppable energy for geology in general and especially mineral exploration and ore deposits. I met Radu in 1978 while a student at Ohio State University. He had recently defected from Romania and came to Columbus, Ohio to be with his sister Rodica and her husband George. She was a professor of Slavic languages at Ohio State and George was a geologist with the Ohio Geological Survey. With his professional credentials not immediately recognized, Radu initially struggled to secure meaningful employment as a geologist, so he decided to enroll in the Masters geology program at Ohio State. We quickly became friends, and he told me subsequently that I was the only person who was willing to share class notes with him! With his English skills improving, taking notes was a challenge and I was happy to help out. It was funny and a little embarrassing when in an ore deposits class, it became clear to the class that Radu apparently knew more than the professor!

During the summer of 1980, Radu was assisting the ore deposits professor and one of his students on a Masters project near Tonopah, Nevada. Radu was doing what he loved most, geologic mapping, and one day ran into a group of geologists with Billiton Exploration. After a short exchange and a look at his map and a recognition by Billiton that this gentleman was underemployed, they offered him a job and moved him to Denver to join Billiton, where he worked for several years on VMS exploration in Arizona.

Radu subsequently joined Santa Fe Pacific Mining in Prescott, Arizona and worked there for a few years before coming to Reno with Santa Fe to join the gold exploration boom that was exploding by the mid-1980's and with the advantage of being in a company with a huge land package of private mineral rights. His early work for Santa Fe in Nevada was on the Carlin Trend, but by 1987, Radu was managing the exploration and development drilling program at the Rabbit Creek Project (subsequently Twin Creeks). Radu managed a team of young geologists (including me) and shared his expertise in detailed core logging, structural geology, alteration and ore controls. He loved to teach! His leadership led to the first comprehensive understanding of the structural controls on gold mineralization at Rabbit Creek and the aptly named "Conelea Anticline" is a great lasting tribute to his work and contributions there. (cont. on page 14)



Radu Conelea Remembrance (cont. from pg. 15)

Radu went on to work in the Battle Mountain district and eventually to manage the Eastern Great Basin exploration efforts of Santa Fe until the acquisition by Newmont in 1997.

Following Santa Fe, Radu worked many years for Bill Howald, first at Placer Dome, then at Rye Patch Gold. At Placer, he spent several years in the Bald Mountain District, and at Rye Patch looking at a variety of opportunities, but with a long history on the Willard-Colado and Lincoln Hill deposits.

For the last several years, Radu did a bit of consulting work but slowly transitioned into a retirement lifestyle, enjoying neighborhood walks with his wife Victoria, fishing on the Truckee river and elsewhere, going on GSN field trips, and keeping his ArcMap skills sharp! He enjoyed sharing memories from his adventures in the field and talking fondly about his family, especially his children Christine and John who he was very proud of.

Radu was one of a kind. He approached all aspects of his life with an intense passion and commitment to doing his best possible at all things. He was a great geologist, enthusiastic teacher and family man and a good friend who will be greatly missed.

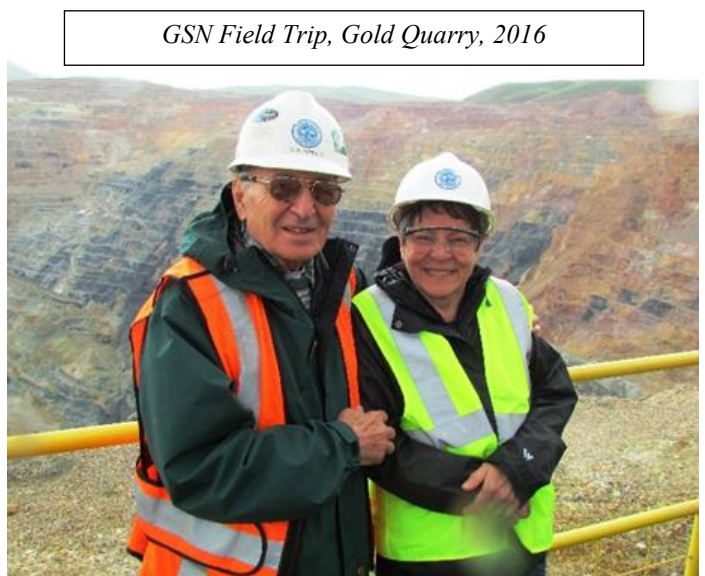
Bob Felder



Conelea anticline exposed in MegaPit, Twin Creeks Mine



Shoshone Range 1990



GSN Field Trip, Gold Quarry, 2016

ROCK TALK

The “Edward P. Jucevic” Scholarship and Wooster High School!

Last February 2023, the “Friends of Ed Jucevic” were able to set up an account with **Wooster High School (WHS)** to manage funds for a scholarship **for WHS students applying to college**. The scholarship was set up to honor the memory of Edward P. Jucevic, long-time GSN member.

WHS is a public secondary school in Reno, Nevada that is part of the Washoe County School District. WHS is a Title I school with a high percentage of students from low-income families.

Regardless of the facts about Title I schools, we believe that with this initiative, we will accomplish not only to perpetuate Ed Jucevic’s name and generosity in our community, but we will encourage students to follow Ed’s career path and passion in engineering.

During the last couple of weeks, we received \$2,500 more and we got the commitment for other another \$2,000 bringing us to about 80% of our goal. If you cannot contribute at this time, please pass on this information to your friends or any people who you might think knew Ed. If you can contribute to this cause, please send a check to:

- **Wooster High School**
1331 E Plumb Ln, Reno, NV 89502
ATTN: Bookkeeper
- **In the check’s memo area put
Celebration of Ed Jucevic Scholarship**

Please contact Edwin Peralta at: edwperal@gmail.com for more information.

If you need a receipt, Edwin will be happy to go to the school to request one and happily mail it to you.



McEwen Mining Nevada would like to publicly recognize and thank N.A. Degerstrom (NAD) for their quick and timely help during the emergency weather conditions last month. NAD has shown that they are a true partner that can be counted upon when things get challenging.

During March, major flooding occurred in Eureka County. This flooding closed the two county access roads to McEwen’s Gold Bar Mine. Critical supplies and fuel were not able to be delivered to the mine site for five days. Essential employees were helicoptered in and out of the mine site.

NAD’s VP of Mining, Matt Coffin and NAD’s Project Manager Troy Eldridge, worked closely to coordinate with Gold Bar Mine personnel and Eureka County Road department to gather information and create a plan to reopen one of the county roads.

NAD’s supervisors and Operating Engineers Local 3 did an outstanding job of regaining access for critical fuel deliveries to keep generators and pumps operating. McEwen Mining expresses enormous appreciation to NAD for its sense of urgency and talent. NAD’s quick actions prevented a potential environmental spill and ensured that McEwen’s Gold Bar Mine continues to operate in a safe and environmentally friendly manner.

Todd Sylvester
General Manager – Nevada
McEwen Mining Nevada Inc.

OTHER UPCOMING EVENTS

May 2, 2023: Arizona Geological Society meets at Hexagon Mining Division Office. Speaker: Dr. Herve Rezeau, U of Arizona, Dept. of Geosciences. Title: "Lithospheric controls on the formation of porphyry copper deposits: What could possibly go wrong?". **Registration Required for those attending in-person:** <https://www.arizonageologicalsoc.org>. Click the link for virtual attendance also.

May 3, 2023: NPGS Nevada Petroleum & Geothermal Society meets on the 1st Thursday of each month at the Tamarack Junction, Reno, NV. Speaker: Vincent Ramirez from 3PL Operating with a presentation titled: Distribution of salts, lithium, boron and other metals in Railroad Valley, Nevada. Please contact Robert@Hot-Inc.net if you'd like to attend. [NPGS Website](#)

May 8, 2023: DREGS Denver Region Exploration Geologists Society, CSM Berthoud Hall, 1516 Illinois St., Golden, CO. Speaker: Mary Doherty, CSM DREGS Distinguished Lecturer 2023 and Program Manager for Professional Master Students, CSM. Berthoud Hall Room 109, 1516 Illinois St., Golden CO. Social hour begins at 6:00 pm. Talk @ 7:00 pm. Zoom link [here](#). For more information, please see our [Events](#) page

May 8, 2023: SME Northern Nevada Chapter. Circus Circus Mandalay Room, Reno, NV. Speaker: Alex Greenblatt, *Business Development Manager, REI Drilling Inc.* Title: "Horizontal Directional Drilling; Innovative Solutions for Complex Problems". Social 6 pm, Dinner 6:45 pm, Talk 7:30 pm. For more information visit their website: <https://nnevsmesquare.site/> or contact: NnevSME@gmail.com

May 17-19, 2023: GSA 119th Annual Meeting of the Cordilleran Section in Reno, NV. Early Register by April 10: https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/cd/2023mtg/home.aspx

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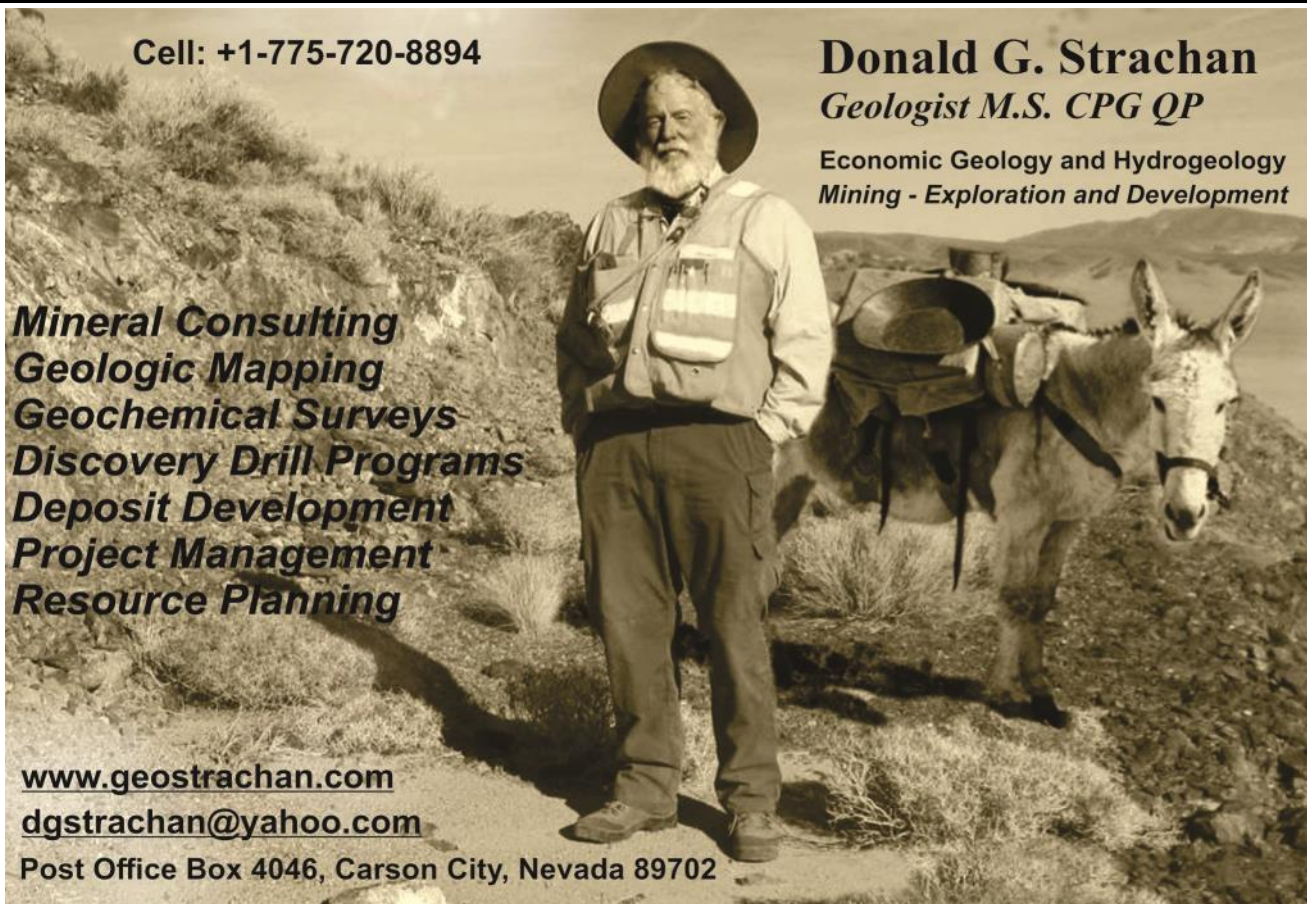


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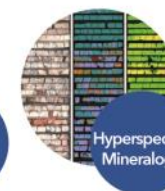
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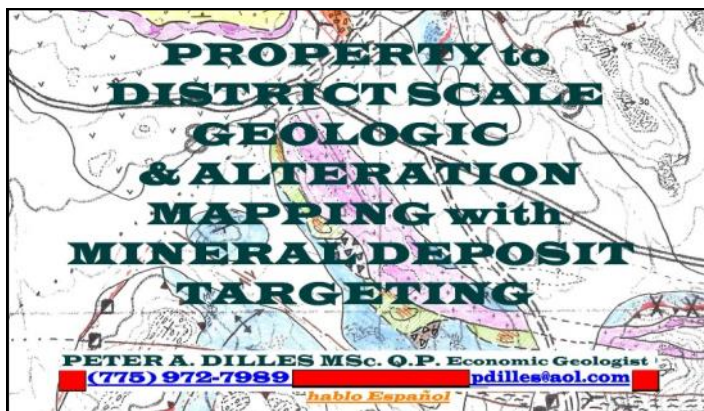
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Thank You!

We want to give a giant, heartfelt “thank you” to those out-going officers who volunteered their valuable time to the GSN organization!

Kel Buchanan—GSN President 2022-2023

Justin Milliard—GSN Elko Chapter VP 2019-20 & President 2020-2023

Nancy Wolverson—GSN Winnemucca Chapter Co-President 2022-‘23

Pat Donovan—GSN Winnemucca Chapter Co-President 2022-2023

The GSN would like to acknowledge Lance Taylor and Geotemps/Geopros Inc. for their continued donation of payroll processing for the GSN Executive Manager.

Thank you!!

