MAY 2022 ISSUE, Vol. 38, No. 5

Congratulations to the GSN Symposium Organizers on their highly successful event!

Front Row (L to R): Dave Browning, Alan Morris, Chris Dail, Molly Hunsaker, Christine Ballard, Cheri Reimann, Elizabeth Zbinden, Tony Gesualdo, Holly McLachlan.


Back Row (L to R): Don Hudson, Kristen Benchley, Joe Kizis, Laura Ruud, Mark Travis, Eric Ruud, Fleet Koutz, Nancy Wolvevson, Nancy Barto, Debbie Schneider, Cami Prenn, Mary Stollenwerk, JoAnn Newbury, Opal Adams, Mario Desilets, Moira Smith, Mike Ressel

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David Shaddrick
Mark Travis

Published monthly except June and July

June 3, 2022
Friday

June 16, 2022
Thursday

GSN MEMBERSHIP PICNIC
The GSN Board of Directors picnic will be held at Rancho San Rafael Park’s Peavine Pavilion from 5 pm—8 pm. Food provided by GSN. Beer sponsored by RESPEC (formerly MDA) & GeoSequel. See page 3 for details.

GSN ELKO CHAPTER PICNIC
Mark your calendars for the Elko Chapter’s first of three summer BBQs. Place and times to be announced via email.
What a year?! Mary Stollenwerk should have been our only pandemic president and I envisioned enjoying the euphoria of a post-pandemic presidency. It looks like Kel Buchanan gets that honor. Regardless, being the 2021–2022 president has been a wonderful experience. GSN remains my favorite professional organization even now that I know “how the sausage is made”.

This year GSN proved to be as resilient as ever with strong membership numbers, interesting talks at our regular monthly meetings, and continued virtual attendance options for folks that needed more time before returning to in-person attendance. We’re seeing more students and young professionals at regular monthly meetings. In fact, several young professionals are volunteering for 2022–2023 executive committee roles. Please cast your vote this month.

The GSN wishes to thank outgoing Executive Committee Officers Patsy Moran, Dave Browning and Kelsey Sherrard for volunteering their precious time to the organization. Patsy did a stellar job of leading the GSN through uncertain times and many changes. Dave has served as the Publications Chair for the past 2 years and did a great job! Kelsey has served the GSN as Membership Chair for the past 3 years. She worked hard during her time on the GSN EC and deserves a huge thank you from everyone!

The G.S.N. wishes to thank GEOTEMPS/GEOPROS for sponsoring GSN’s Meeting on April 15th in Reno!
The GSN Board of Directors is happy to announce that a picnic will be held on Friday, June 3, at the Peavine Pavilion at Ranch San Rafael park in Reno, from 5-8 PM. We got back on track last year with a great event that was enjoyed by all who attended, and this year should be no different. We’ll have 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, June 1st to Laura at gsn@gsnv.org!

Thank you to our generous beer sponsors:

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GeoSequel
RESPEC’S EXPLORATION AND MINING DATA MANAGEMENT SOLUTION

Covid 19 Protocols are updated at https://www.washoecounty.us/parks/index.php
Looking back, two events shaped my trajectory in becoming a Geologist. The first, a basketball-sized vertebrae of an Eocene Basilosaurus plucked from a Georgia limestone quarry highwall by a grandfather I never met. The second, watching Jurassic Park on the big screen. Yes, twenty-nine years since its release and I still reflect on the vivid impact it had on my eleven-year-old brain that afternoon.

Flash forward a decade and I am stumbling late into my first geology course as a University of Georgia sophomore. I changed my degree later that week. Lots of cool camping geology field trips back east, but it was my first trip west of the mighty Mississippi at age 23 that really opened my eyes to what being a geologist could be. As we headed north from Raton, NM the snow-capped peaks of the Sangre de Cristo range filled the wind shield, my road partner saying “Oh wow, those aren’t clouds.” Us Georgia boys had never seen such a sight as we discovered the wonderous terranes of the montane west.

I knew this discipline was for me, but how does one make a living as a geologist? My college advisor suggested environmental geology…that or I could go to grad school. I took a semester off and interned with the US Army Corps of Engineers, Savannah District. A fall of purging water wells and sampling chemical compounds found in no geology textbook informed me that maybe this was not my calling. I returned back to school in the spring, and that summer was once again headed west having secured a summer internship through GSA’s GeoCorps America program. I spent the summer mapping perched terraces for Miocene placer garnets—with 16 feet of hard-fought hand auger—at the Idaho Panhandle National Forest recreational dig site in Clarkia. I also helped with abandoned mines and gravel quarry assessment within the Silver Valley. It occurred to me “Maybe mining was the ticket?”. That final semester I was fortunate to have an Economic Geology course offered to me and vigorously dove into Guilbert and Parks “The Geology of Ore Deposits.”

Graduating in 2006, I headed as far west as I could get—ending at the Greens Creek mine off the coast of Juneau, AK. I developed a love for logging in that core shed nine months prior to transitioning into the Underground Mine Group. Structurally complex, high-grade, polymetallic ore (!!!)—with a geology rather than engineer driven mine—made for the greatest job I’ve ever had. It was cool at 25 years old to follow $50k rounds, cut and fill, longhole stopes, benching, breasting, retreat slabbing—and have that level of responsibility entrusted. A rotating 8 and 6 day/night roster, 11-hour shifts and 4 hours of commute—via car, boat and rickety old school bus—was grueling, but warranted for all the lessons learned.

After three years, I returned back to Georgia to help out with my parents…but I had already decided I wanted to pursue graduate studies regardless. That summer of 2010, I headed west again to start my MSc on the Sandman Au project at the University of Nevada’s CREG program. What a great year to be in Winnemucca and discover the GSN community. It was the midst of a booming commodities super-cycle; all the mines were open and lots of enthusiastic young geologists were learning the ropes—with a surprising amount hailing from the deep south. Mint Julip themed BBQ’s and low-country crawfish boils were a taste of home. It was easy to tag along with a production geo for a weekend mine tour and I gained many an excellent mentor at Newmont during this time. You all know who you are and I am thankful to have worked alongside you.

Graduating spring of 2013, (cont. on pg. 5)
the super-cycle was ending and opportunities were drying up. I was fortunate to find core logging contracts with both Klondex and Kinross that year and consider it a privileged learning experience to have seen so much drill core from the Fire Creek and Goldbanks deposits, respectively. In hindsight, I have found I am happiest in a core shed—cup of coffee in hand, leaning over rock no one has ever seen—realizing my annual salary is laid upon those sacred roller tables.

Having recently met my lady and with no prospect of work that winter, I took a 7 month “sabbatical” to explore hot springs of the glorious Eastern Sierra before spending a month back-packing across Europe. I figured “What better way to get motivated to find a job than racking up a bunch of credit card debt?”.

The spring of 2014 Au prices were depressed—but the US oil and gas industry was booming—and Halliburton was getting aggressive with a short-lived development of assets in the Nevada barite belt. Those two years I worked on a number of interesting projects, realized a lot of lessons in managing drill programs, and learned a surprising amount about the complexity of upper plate rocks. I also once again learned how fickle commodity markets are—having hired on at $109 a barrel, only to be escorted off site at $27 a barrel.

I was fortunate to find myself a core logging contract within a month of layoff, spending many a happy day 2016-2017 within Newmont’s Long Canyon and Maggie Creek core sheds before landing a full-time position with the Generative Exploration group. I was excited to be working alongside many prior mentors, met an amazing number of incredible geologists across the operations and was exposed to a lot of really neat rocks. I got to recon lots of Utah and Nevada, helped with drill programs along the Carlin trend, Battle Mountain district, Twin Creeks and numerous generative projects. I even got to spend some time underground at the Exodus mine helping with grade control activities late 2018. But all good things come to an end.

With various mergers clouding the Newmont waters in 2019, I set off in a different direction and ended at the Coeur Rochester mine outside Lovelock. The Humboldt Range is a beautiful place with a fascinating history and some great geology. I finally got some exposure to open pit mapping and grade control and learned some hard taught lessons in “soft skills”. As it turns out there is more to being a geologist than just knowing the rocks.

It was also 2019—after years of forgoing GSN meetings because of work and family obligations—I attended the May meeting in Winnemucca…and somehow got myself nominated for chapter president. Driving over from Lovelock monthly did keep the number of beers in check and it was great to get reacquainted with a chapter dear to my heart. With all that was 2020, the winds of change were blowing, the world went into lockdown, and I found myself back in Reno for some long-needed family time. I spent most of 2020 home-schooling, growing sunflowers and pumpkins, raising Pacific Chorus tree frog tad poles with the kids, and pride myself that we swam in the Truckee every day that summer. I even found the time to finally fill out all my AIPG paperwork for licensure. But alas, I was bored and was missing the drill rig.

Coming full circle in my Nevada geologic journey, I now find myself exploring the Sandman project once again—this time with Gold Bull Resources. The last year and a half have been (cont. on pg. 6)
The GSN Winnemucca Chapter will not be having a May meeting.

Look for a picnic announcement for this July!

SLATE OF OFFICERS FOR June 2022-May 2023:

Co-President: Nancy Wolverson
Co-President: Pat Donovan
Secretary: Sandra Powers
Treasurer: Andrew Smith
Membership: JoAnn Newbury

Chad Peters, P.Geo.
President & CEO, Ridgeline Minerals
GSN Winnemucca Chapter President
cpeters@ridgelineminerals.com

Chad Peters deserves special recognition for stepping up to lead the Winnemucca Chapter when no one else would! He saved the chapter from folding in Spring 2020 and kept it going through the pandemic the past 2 years.

Thank you Chad for your dedication to the GSN Winnemucca Chapter!
GSN Elko Chapter—May 2022 Update

Bad News…

The Elko GSN Chapter will not be holding a May meeting.

Good News…

The Elko GSN Chapter will be hosting the first summer BBQ on June 16th. Please stay tuned.

We are happy to announce our 2022-2023 Officer Slate was unanimously approved by a 16 to 1 vote.

President: Justin B. Milliard
Vice President: Sergey Konyschev
Treasurer: Adele Berg
Secretary: Allison Mastenbrook
Membership Chair: Andrew Belot

I (Justin) would personally like to thank Mr. Luke Schranz for his year of service. I would also like to thank Adele, Allison and Andrew for not only a year of service but also signing up again for another year. Without volunteers, GSN would not function, beer would not flow and monthly geologizing meetings would not happen. Lastly, thanks to Sergey for stepping up and into the Elko GSN family this coming year. If you are reading this and have not yet volunteered for GSN but have enjoyed the benefits of membership, please SERIOUSLY consider volunteering.

We are happy to announce that the GSN Elko Scholarship has been awarded to four students for the academic year.

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

Alexander Holmwood, UNR, MS student
Temporal evolution of the Majuba Hill Cu-(Mo)-(Sn) deposit, Pershing County, Nevada

Nathan Carey, UNLV, MS student
Age and Genesis of W-Mo-Cu Mineralization, Gold Hill, Utah

Shasta Longo, UNR, MS student
Determining the Evolution and Heterogeneity of Eocene Plutons at Swales Mountain, NV

Lastly, with the summer season approaching we would like to encourage members to do their part keeping Nevada beautiful by volunteering a few hours to (cont. on pg. 8)
clean up the GSN Elko section of one of Nevada’s scenic byways, HWY 227. Those that attend will be entered to win a prize to be given away at the July BBQ.

GSN Southern Nevada Chapter

The GSN Southern Nevada Chapter is in need of volunteers to take over chapter leadership. We currently have the Vice President lined up for the coming year, but we are looking for someone enthusiastic to build the chapter back from the COVID-19 pandemic. The Chapter and GSN Southern Nevada presence only works as a result of the dedication of volunteers. Please contact current and out-going Chapter President Josh Bonde ASAP if you are interested in serving (joshua.bonde@nvscicenter.org).

President—Vacant
Vice President—Simon Jowitt
Secretary—Vacant
Treasurer—Vacant
Membership Chair —Vacant

Editor’s Note: A huge thank-you goes out to Josh Bonde who has been leading the Southern NV Chapter for ~14 years! We also want to recognize Paul Bowen who is stepping down from the Treasurer’s position after serving the Chapter for OVER 20 years! Now that’s DEDICATION!!
Here is the slate of GSN officers for 2022-2023. A ballot will be sent to you by email soon so you can be involved with an up or down vote for each slate.

**GSN EXECUTIVE COMMITTEE 2022-2023 OFFICERS**

(TERMS BEGIN June 1, 2022)

**President:** Kel Buchanan, HB Engineering Group  
**Vice President:** Anthony Gesualdo, Lahontan Gold Corp.  
**Secretary:** Steve Weiss, Consulting Geologist  
**Treasurer:** Bob Kastelic, McEwen Mining  
**Membership Co-Chair:** Melissa Boerst, Independent Geologist  
**Membership Co-Chair:** Kaitlin Sweet, EM Strategies, a WestLand Resources Company  
**Publications Chair:** Paul Fix, AngloGold Ashanti  
**Digital Media Chair:** Peter O’Byrne, Target Synthesis

FOR EXEC. COMM SLATE__________    AGAINST EXEC. COMM. SLATE__________

**GSN BOARD OF DIRECTORS**

**CLASS A DIRECTORS (3 year term 2021-2024)**  
Bob Thomas, Consulting Geologist  
John Watson, McEwen Mining

**CLASS B DIRECTORS (3 year term 2022-2025)**  
David Caldwell, Phoenix Development Group  
Greg French, Nevada Copper, Inc.

**CLASS C DIRECTORS (3 year term 2020-2023)**  
David Shaddrick, Rubicon Resources  
Mark Travis, First Majestic Silver Corp.

FOR BOARD OF DIRECTORS________    AGAINST BOARD OF DIRECTORS________

**EX-OFFICIO BOARD MEMBERS 2022-2023**

Kel Buchanan, Current GSN President, HB Engineering Group  
Patsy Moran, Immediate Past GSN President, Practical Geochemistry LLC  
Justin Milliard, Elko Chapter President, Milliard Geological Consulting LLC  
Vacant, Southern NV Chapter President, Nevada Science Center  
Patrick Donovan, Winnemucca Chapter Co-President, SSR Mining  
Nancy Wolverson, Winnemucca Chapter Co-President, Consulting Geologist

(Ex-Officio members are determined by the Chapter votes and BOD protocols)
NEWS FROM THE FOUNDATION

By Cami Prenn, GSN Foundation Chair

It seems all activity at GSN is geared toward the Symposium which is starting just as you’re reading this newsletter. While Symposium has many GSN members engaged in its planning and execution, the Foundation is still running its programs according to the time of year.

It’s time for Field Camp Scholarships and we just awarded scholarships for three UNR students to attend the six-week field camp this summer. We understand there are quite a few scholarship opportunities for field camp and we hope that all students who attend were able to get some assistance.

The application period for the three endowed scholarships the Foundation administers ends on May 31st with funds to be awarded for the Fall 2022 semester. All guidelines and applications are available on the website.

A new program we undertook this year is awarding prizes for student research papers submitted in the UNLV GeoSymposium taking place April 29th. We were given nine papers and Foundation Board members are reviewing them and picking the top four papers. Of those four, two will be selected for the prizes given by GSN Foundation. We look forward to working with the UNLV Geosciences Department on this new program.

Lastly, the winner of the Grand Canyon Raft Trip raffle prize donated by Envirotech Drilling being led by Dr. Lew Kleinhans will be picked Wednesday, May 4th at the Landshark Lounge GSN Foundation fundraiser party. The trip will be Aug. 28 – Sept. 6, 2023. There will only be one winner but there are many seats on the trip and if you’re interested in filling one of those seats, you can contact Dr. Kleinhans: lewis.oysterclub@gmail.com or (720) 273-9233.

Thank you for your support of the GSN Foundation! We hope to see you at Symposium 2022.

EDITOR’S NOTE

Due to the delay of the May newsletter we are now able to announce the winner of the Grand Canyon Raft Trip drawing at the Landshark Lounge fundraiser during the Symposium on May 4th. The lucky winner is Hillary Jochens with Riley Gold from Girdwood, AK. Congratulations Hillary!

Ruth Carraher selling raffle tickets at the party alongside the land shark!

Cami Prenn, Chair and Brian Mikelson, Envirotech Drilling drawing the winner!

Andy TenBrink and Alex Ruud selling raffle tickets at the party

Thanks Again to Our Sponsors of the Landshark Lounge at the Symposium!
NEVADA

Rio Tinto Ltd. announced that it acquired an option to earn a 65% interest in the Mason Valley Properties (Yerington, MacArthur and Bear) from Lion Copper and Gold Corp. for $9,000,000 cash over 1.5 years. Rio Tinto acquired the properties to test its “Nuton Technology” to leach low-grade copper sulfide deposits. Press Release: March 22

1-80 Gold Corp. announced that began the development of a decline at the Cove Project from which to conduct underground drilling. (resource = 1,007,000 tonnes @ 10.9 gpt Au, 29.1 gpt Ag indicated) Press Release: March 7

Millennial Precious Metals Corp. announced that recent drill results at the Mountain View Project include 120.1-309.1 meters @ 0.46 gpt Au (MVCD-021). (resource = 23,200,000 tonnes @ 0.57 gpt Au inferred) Press Release: March 8

Phenom Resources Corp. announced that recent drill results at the Carlin Project include 16.76-68.58 meters @ 0.76% V2O5 (RC20-05); 28.96-47.24 meters @ 0.40% V2O5 (RC21-10); 6.1-16.76 meters @ 0.57% V2O5 (RC21-11) and 48.77-60.96 meters @ 0.37% V2O5 (RC21-12). Press Release: March 9

Rex Minerals Ltd. announced that recent drill results at the Hog Ranch Project include 18.3-140.2 meters @ 0.46 gpt Au (HR21-021); 4.6-73.2 meters @ 0.47 gpt Au (HR21-022); 12.2-141.7 meters @ 0.55 gpt Au (HR21-023) and 36.6-114.3 meters @ 0.58 gpt Au (HR21-024). (resource = 35,000,000 tonnes @ 0.49 gpt Au indicated) Press Release: March 2

Calibre Mining Corp. announced that recent drill results at the Pan Project include 45.57-79.55 meters @ 0.83 gpt Au (PCM21-01); 79.25-123.45 meters @ 0.44 gpt Au (PCM21-02); 184.41-188.98 meters @ 0.44 gpt Au (PCM21-03) and 7.62-12.19 meters @ 0.65 gpt Au (PCM21-14). (reserve = 21,320,000 tonnes @ 0.42 gpt Au proven+probable) Press Release: March 8

American Pacific Mining Corp. announced that recent drill results at the Gooseberry Project include 272.0-276.6 meters @ 0.34 gpt Au, 41.9 gpt Ag (GB21-06); 214.9-221.7 meters @ 0.91 gpt Au, 120.6 gpt Ag (GB21-07); 246.9-251.5 meters @ 0.94 gpt Au, 169 gpt Ag (GB21-09) and 269.7-276.6 meters @ 0.65 gpt Au, 130 gpt Ag (GB21-10). Press Release: February 28

Timberline Resources Corp. announced that recent drill results at the Eureka/Water Well Project include 316.1-357.2 meters @ 5.03 gpt Au (BHSC-212C). (resource = 26,254,000 tonnes @ 0.62 gpt Au measured+indicated)

Augusta Gold Corp. announced that based on recent drill results at the Bullfrog Project, resources aggregate 71,010,000 tonnes @ 0.53 gpt Au measured+indicated and 16,690,000 tonnes @ 0.48 gpt Au inferred. (was 52,290,000 tonnes @ 0.52 gpt Au measured+indicated and 9,020,000 tonnes @ 0.45 gpt Au inferred) Press Release: March 10

AMC Entertainment Holdings Inc. (a Cinema chain) announced that it acquired a 22% interest in Hycroft Mining Holdings Corp. for $27,900,000. W.S.J.: March 16

Gold 50 Ltd. announced that recent drill results at the Top Gun Project include 39.6-42.65 meters @ 1.3 gpt Au, 26.5 gpt Ag (TG05); 12.2-13.7 meters @ 0.2 gpt Au, 6.5 gpt Ag (TG07) and 42.7-53.3 meters @ 0.4 gpt Au, 2.1 gpt Ag (TB09). Press Release: March 9
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2022 SYMPOSIUM CO-HOSTS
**May 12, 2022:** NPGS - the Nevada Petroleum & Geothermal Society will meet at the Tamarac Casino, Reno, NV. Our speaker this month will be: Dr. Bridget Ayling - Director, Great Basin Center for Geothermal Energy and Associate Professor, Nevada Bureau of Mines and Geology. **Title: Innovative Geothermal Exploration through Novel Investigations Of Undiscovered Systems: Introducing the INGENIOUS project.** This will be our last dinner meeting until September. Beer, wine and cocktails will begin at 6:30 PM and buffet style dinner will begin at 7:00 PM followed by the presentation at around 7:30 PM. Registration is $35. If you or your company is interested in hosting the bar for this event, please contact us. REGISTER HERE FOR MAY 12th MEETING

**June 13-15, 2022:** Prospectors & Developers Association of Canada (PDAC) will be held in Toronto, ON, Canada in-person June 13-15th. GSN will be in Booth #931 in the Trade Show Hall in the NEVADA booth along with NDOM, NBMG, NMEC, BLM and GOED. Come visit us if you are at the show! Click here to Register for the event. PDAC 2022 They are also having an online event June 28-29, 2022.

**June 20-30, 2022 with Mine & Field Visits in July:** Geological Society of South Africa. Diamonds from Exploration to Manufacturing. Short courses, Mine visits and Field visits. Online short courses. Click here for more information: GSSA Information Circular. Click here to Register: GSSA Registration

**June 23-26, 2022:** Mining History Association, 32nd Annual Conference, Birmingham, Alabama.

Birmingham, Alabama will be our host city for the 32nd Annual Conference of the Mining History Association on June 23-26, 2022. The Hilton Birmingham at UAB (University of Alabama – Birmingham) will be our conference hotel and the venue for the technical sessions as well as several social functions. It is located in downtown Birmingham and, as the name implies, is adjacent to the University. Please visit the website for more information: http://www.mininghistoryassociation.org/Birmingham2022.htm

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**OTHER UPCOMING EVENTS**

**FREE ITEMS**

EM Strategies is giving away:

- Six Mayline stackable 5-drawer flat file cabinet pieces that contain a collection of 7.5' Nevada topo maps
- One wooden flat file cabinet that contains a collection of 15' Alaska topo maps
- Five metal stackable 5-drawer flat file cabinet pieces that contain misc. maps of California, Utah, Idaho, and Arizona

They are welcome to contact me by email (ccrowther@westlandresources.com) or by phone (775.826.8822).
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Elko Office
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Field Trip Leader, Joe Kizis sent this photo of “everyone” waiting to get on a FT#5 van in Beatty...

Mark Coolbaugh is patiently waiting his turn.

Thanks to Chris Dail, Perpetua Resources for these last minute photo editions taken on the post-symposium field trip #1 to N. Nevada and SW Idaho. Sandman VG gold diggers to the right and Wind-break talk above.

GSN TRAVELING BACKPACK
GSN Board Member, Mark Travis submitted this photo of his 2015 Symposium backpack in this beautiful location: Corcoran Canyon, SE Toquima Range, Nye Co., NV.