



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.
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**MAR. 8, 2023
WEDNESDAY
Drinks 6 pm
Talk 7 pm**

GSN WINNEMUCCA CHAPTER

The GSN Winnemucca Chapter meeting will be held at the Martin Hotel, 94 W. Railroad St. **SPEAKER: Derick Unger, VP Exploration, NevGold Corporation; TITLE: "Geology and Mining History of the Limousine Butte Project, Cherry Creek Range, Nevada". SPONSOR: PREMIER DRILLING.** 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.

**MAR. 10, 2023
FRIDAY
(NOTE! One
week earlier!)**

GSN REGULAR MEMBERSHIP MEETING

The GSN meeting will be held at the Hidden Valley Country Club. **SPEAKER: Richard Bedell. TITLE: "Magmatism, Granitic Pegmatite Genesis and Associated Mineralization". SPONSOR: FALCON DRILLING.** Dinner cost is \$50. Please register for dinner online or RSVP at this link: [RSVP/DINNER](#) Details on pg. 3. **PLEASE RSVP BY FRIDAY, MARCH 3RD AT 4 P.M.!**

**MAR. 16, 2023
THURSDAY**

GSN ELKO CHAPTER

The GSN Elko Chapter will hold their meeting at the Western Folklife Center, 501 Railroad St. Elko. **SPEAKER: Shasta Longo, University of Nevada, Reno. TITLE: "Unraveling the Magmatic History of Eocene intrusions at Swales Mountain, NV". SPONSOR: INDEX / AMC / REFLEX.** Please contact Elko President Justin Milliard: justin.b.milliard@gmail.com for more information. Details on pg. 5.

GSN MARCH 2023 RENO MEETING SPONSOR



FALCON DRILLING

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



Despite the ruling last week that allowed Lithium Nevada's Thacker Pass property to be developed, the language in the judgment drew parallels to the full 9th Circuit decision last August, to uphold a 2019 lower court decision on the Rosemont mine near Tucson that prevented waste to be placed on 2,500 acres of US Forest Service land. While HudBay continues to develop the Copper World project in the same general area as the Rosemont, it is a setback for the company, although the Copper World deposits are robust.

The 9th Circuit ruling may have some impact on the 1872 Mining Law. As some may recall, in the year 2000, the US Government mandated that each mill-site claim be no more 5 acres, with no more than one mill-site claim per mining claim. This Order was rescinded in 2001, then reinstated in 2009, only to be rescinded again in 2011, when it was thought to be unconstitutional.

Now, with this recent ruling, the Thacker Pass mine can now avail itself of the \$650 million General Motors investment and proceed to mine. The 5,700 acre property (including the 1,300 acres of sagebrush vegetation designated for waste rock disposal) was deemed by the judge to have "macro" economic benefits, since the project may provide the material to power one million EVs per year.

Our upcoming GSN dinner meeting at HVCC will link to the theme of LCT (Li, Ce, Ta) mineralization. From legislative issues at our last meeting, we're going to return to our geological roots, with a presentation by Richard Bedell focusing on igneous terrain, and insights into rare earth distributions. Nevada is continuing to receive a lot of attention, both from industry and government, per the recent \$1.3 billion DOE investment in the Redwood Materials lithium recovery plant at TRIC.

Uranium miners look to be headed for a good year as well, given the recent announcement that US companies will construct one of three nuclear plants in Poland. Our friends in the phosphate and potash mining industry will also be pleased that the recent rains in California will allow the state water board to remove restrictions on water delivery, which may maximize acreage under cultivation and increase fertilizer usage. Who knows, by August there may be so much produce available in the Golden State, that farmers may have to reduce prices and thus contribute to lowering the inflation rate.

Kel Buchanan

GSN wishes to thank the Reno February meeting Sponsor!



And the Winnemucca and Elko February meeting Sponsors!

Envirotech Drilling LLC

***MAJOR
Drilling***

GSN MEETING in RENO—FRIDAY, MARCH 10, 2023

GUEST SPEAKER: Richard Bedell

Title: “Magmatism, Granitic Pegmatite Genesis and Associated Mineralization”

Sponsor: FALCON DRILLING INC.

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 FRIDAY, March 3, 2023 at 4 PM! I leave for PDAC on Mar. 4)

ABSTRACT:

Our understanding of magma reservoirs has changed considerably from convecting, melt dominated, to conductive, crystal rich magma chambers. Water rich I type granites usually related to subduction zones with high oxygen fugacities, that approach their liquidus partitioning S and Cl, can create porphyry deposits. Pegmatites, on the other hand, are produced from A and S type granites and are generally broken down into LCT (Li, Ce, Ta) or NYF (Nb, Y, F) types.

Pegmatites are further defined by distance from source pluton and can be hosted within the roof zone, on the margins or increasingly distal. Generally, the more distal the more fractionated. This long held observation now can be genetically explained by the abundance of melt dominated H₂O rich magmatic volatile phase (MVP) vs. abundance of crystal mush. Pegmatites are now thought to be generated within magma chambers with high crystallinity (>70-75%) whereby MVP is trapped within the crystalline mush and the pegmatites form from a pressurized solute-rich MVP (Troch et al. 2022).

Classic zoned pegmatites of greatest mineralogical interest, crystallize well below their solidus and invoke disequilibrium textures such as graphic granite, Unidirectional Solidification Texture (UST) and line rock. The shallowest pegmatites, approaching or in the epithermal zone can have open pockets allowing crystals to grow that are coveted by collectors. These pegmatites also may be zoned allowing further concentration of incompatible elements. These pegmatites that are LCT have the greatest chance of providing Li ore in spodumene concentrated usually in late cleavelandite (bladed albite) replacement zones.

The deeper pegmatites are emplaced into hotter host rocks that may be even suprasolidus. These can be generated through direct anatexis and are typically unzoned. They are emplaced more by replacement than dilation and therefore country rock can have a major effect on pegmatite bulk composition. An example is shown of the Madawaska Mine in Bancroft Ontario where U & Th grades are well correlated with the assimilation of iron rich metagabbro.

Lots of good igneous petrology and mineral photos.

The Canadian Mineralogist Vol. 60, pp. 229-248 (2022) DOI: 10.3749/canmin.1800006 A Proposed New Mineralogical Classification System For Granitic Pegmatites M. A. Wise, A. Muller, W.B. Simmons.

American Mineralogist, Volume 107, pages 190–205, 2022; The physical and chemical evolution of magmatic fluids in near-solidus silicic magma reservoirs: Implications for the formation of pegmatites. J. Troch, C. Huber, and O. Bachmann

[Maine-pegmatite-workshop.com](#) Sept. 7-10, 2023, Bethel ME.

Bio Richard L. Bedell

Currently Chairman of the Board of TerraCore Inc. an international drill core imaging technology company, a Board member of the Geological Society of Nevada Foundation and Technical Advisor to Westward Gold and Gold Bull Resources. Also, on a JPL working group for algorithm development on the next generation of Earth observing satellites. Richard has almost 40 years international exploration experience including an adjunct Faculty position in Exploration Geophysics at The Mackay School of Earth Sciences and Engineering University Nevada Reno. Previously cofounder (with Ron Parratt) of AuEx Ventures that did the successful Exploration on the Long Canyon Deposit in Nevada. After AuEx was sold became cofounder (with Ron Parratt) of Renaissance Gold that merged with EVRIM Resources to create Orogen Royalties that have assets in Nevada, Mexico, and British Columbia. Previously also with Homestake Mining as part of their global target selection team and ran the technical group worldwide for exploration, as well as exploration for BP Minerals and Rio Tinto. He is a recognized expert in remote sensing and geo-spatial technologies and is a Fellow of the Society of Economic Geologists, a member of the Geological Society of America, founding member of the Geologic Remote Sensing Group, and a member and past President of the Geological Society of Nevada. Richard is a graduate from the school of Natural Sciences & Mathematics from Hampshire College in Massachusetts with a B.A., an M.Sc. at the University of Toronto in Economic Geology, and a second M.Sc. from the University of London in Remote Sensing and GIS.



GSN WINNEMUCCA CHAPTER NEWS



Please join us for the **Winnemucca GSN March Meeting**

Wednesday, March 8, 2023
The Martin, 94 W. Railroad St.

Food and Drinks at 6 pm

Talk at 7 pm

Speaker: Derick Unger, VP Exploration, NevGold Corporation

Talk: *"Geology and Mining History of the Limousine Butte Project, Cherry Creek Range, Nevada"*

FOOD AND BEER SPONSOR: PREMIER DRILLING



For more information on Premier Drilling contact James Stephens,

james@premierdrilling.com

480-200-8300

www.premierdrilling.com

ABSTRACT:

Geology and Mining History of the Limousine Butte Project, Cherry Creek Range, Nevada

The Limousine Butte Project is a Carlin-type gold project located in the Cherry Creek Range, 45 miles north-northwest of Ely, Nevada and 5 miles west of Cherry Creek, Nevada. NevGold Corporation acquired the project from McEwen Mining Inc. on December 14, 2020, and since has begun a robust exploration program that includes mapping, sampling, and drilling.

The gold mineralization at Limousine Butte is typical of eastern Nevada Carlin-type deposits. Gold is primarily hosted in a group of Mississippian to Devonian-aged sedimentary rocks that includes the Chainman Shale, Joana Limestone, Pilot Shale and Guilmette Limestone. Mineralization is most intensely developed as jasperoid breccias and decalcified limestone at contacts between the shales and underlying limestone units.

Exploration at Limousine Butte is ongoing, after a successful 2022 drill program that identified new mineralization at both the Resurrection Ridge and Cadillac Valley zones, additional drilling is planned for 2023. New geologic mapping and modeling has reinterpreted the structural framework of the property and is identifying additional new targets. An important aspect of the project's structural geology and exploration targeting is understanding the role of thrust faults in localizing mineralizing fluids and potentially concealing favorable host rocks. The thrust faults were originally identified by mapping done by Donald Adair for a master's thesis in 1961. These thrust faults appear to emplace older dolomites of the Simonson and Sevy formations overtop the Chainman and Pilot shales. This emplacement of dolomites over the more favorable shale units is seen as an under explored aspect of the Limousine Butte Project and will be the focus of future exploration programs.

The Cherry Creek Range has seen a long history of mining. Gold was first discovered in Egan Canyon in 1861. This was followed by the discovery of silver in Cherry Creek Canyon in 1872. Mining of silver as well as tungsten continued until 1958 around the town of Cherry Creek. More recently, the Golden Butte Mine, located in the area now called Resurrection Ridge on the Limousine Butte Project, produced gold between 1989-1990 from a small open-pit heap leach operation.

The Cherry Creek Range has seen a recent resurgence in exploration activity. Including NevGold's Limousine Butte Project, there are four active exploration projects in the area. To the southwest of Limousine Butte, Falcon Butte Minerals is actively exploring the Butte Valley Project for porphyry copper-gold and skarn type deposits. On October 2, 2022, an exploration and earn-in agreement was announced between Freeport-McMoRan and Falcon Butte for Freeport to spend up to \$33MM on exploration expenditures on the Butte Valley Project. East of Butte Valley and south of Limousine Butte, Ridgeline Minerals is actively exploring their Selena Project for CRD-type silver-gold-lead-zinc mineralization. Northeast of Limousine Butte, Viscount Mining and Centerra have an \$8MM earn-in agreement, announced January 6, 2021, to explore for extensions of the mineralization mined by the historical workings.

This recent resurgence in exploration activity by multiple companies, and on multiple deposit-types, points to the exciting opportunities for discovery that occur at the Limousine Butte Project and the surrounding projects.

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



GSN ELKO CHAPTER NEWS



The Elko GSN Chapter is excited to have another of our scholarship recipients present at our March meeting at the Western Folk Life Center on Thursday March 16th. Shasta Longo of the University of Nevada, Reno will be presenting on her MS research; Determining the Evolution and Heterogeneity of Eocene Plutons at Swales Mountain, NV. The event is graciously hosted by our sponsor Imdex/AMC.

Thursday, March, 16, 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: Shasta Longo, University of Nevada, Reno

Title: "Unraveling the Magmatic History of Eocene intrusions at Swales Mountain, NV"

Abstract:

Many modern volcanic systems change in their eruptive behavior and products over the course of their lifetime. How these changes are recorded in subsurface magmatic records remains poorly understood. By studying magmatic systems that expose the subvolcanic and plutonic levels of old volcanic systems we can reconstruct the spatial and temporal assembly of small to intermediate-sized systems. Nevada has been affected by the westward convergent plate margin for over 150 million years causing volcanism and arc-style magmatism in the Jurassic, Cretaceous, and Eocene through Miocene. The associated subvolcanic and plutonic plumbing systems have been exhumed and tilted as a result of Basin and Range extension exposing the time-integrated record of magma storage, recharge, and withdrawal. We present emerging results from geologic mapping combined with geochemical analyses, including amphibole barometry and isotope data, from Swales Mountain, NV, which hosts a shallow to mid-crustal Eocene magmatic system. The peraluminous, calc-alkaline intrusions range from 56 to 76 wt% silica. Three texturally and compositionally-distinct plutons ranging 0.5-2 km in width are exposed in different parts of the plumbing system. In between, various dikes, sills, and breccias interact with Paleozoic sedimentary units. Field observations exhibit the dacite cross-cutting rhyolitic deposits. A variety of mixing textures with mafic material have been observed in the plutonic units, indicating contemporaneous heterogeneity in the Swales Mountain system. Swales Mountain is less than 20 km from the Carlin Trend allowing the intrusions to be a potential heat source leading to Carlin-type gold mineralization. Results indicate that the oldest preserved episodes of magmatism at Swales Mountain were evolved and felsic, potentially related to more crustally-derived magmas that then transitioned to less evolved, more mafic, mantle-derived compositions. We speculate that this transition to more mafic compositions is related to more direct magma transport from the mantle as slab roll back progressed. Small systems, like Swales Mountain, may potentially be used to explore how initial crustal magmatism integrates mantle material over time.

(More Elko Chapter News continued on page 6.)

GSN ELKO CHAPTER SCHOLARSHIP NEWS

SPONSOR'S COMPANY INFORMATION: Imdex/AMC

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Our technologies and products allow smarter and safer decisions for people, assets and the earth.

<https://www.imdexlimited.com/>

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On another note, the Elko GSN Chapter is seeking volunteers for the 2023-2024 year to serve as an officer.

If you are interested in serving in one of the following positions, please submit your name by March 15<sup>th</sup> to be included on the ballot that will be distributed later this month.

### **OPEN POSITIONS IN ELKO:**

#### **Secretary, Treasurer, & Membership Chair**

Please submit your name and position of interest to Allison Mastenbrook @ [mastenbrook.am@gmail.com](mailto:mastenbrook.am@gmail.com)

For a description of Position duties please visit: <https://www.gsnv.org/chapters/elko/>

Voting on Officers will take place via online survey.

**GSN Elko Scholarship is still open for applications until the end of March. Here is a link to the application.**

[https://www.gsnv.org/wp-content/uploads/GSN\\_Elko\\_Scholarship\\_Application\\_Spring2022.pdf](https://www.gsnv.org/wp-content/uploads/GSN_Elko_Scholarship_Application_Spring2022.pdf)

**(See page 7 for exciting news about an Elko Chapter field trip!)**

# David Knight Memorial Field Trip

## Geology of the Jarbidge District, Elko County Nevada

w/ talk on

### Jarbidge Mine History and District Geology

September 23 – 24, 2023

Organized and led by the GSN Elko Chapter

Lunches, snacks, Saturday dinner and Sunday breakfast included!

Day 1: Elko to Jarbidge via Charleston. Multiple stops to see key outcrops and overviews. Prime rib dinner at the Outdoor Inn, to be followed by a talk on Jarbidge history and district geology.

Day 2: Breakfast at the Outdoor Inn. Jarbidge to Rogerson and returning to Elko. Key stops in the Jack/Jenny Creek basin to see uppermost portions of the epithermal system and review the unique exhumation history of the deposit.

Cost/Donation:       \$300/individual, includes individual lodging at the Outdoor Inn or Barn  
                              \$250/individual with roommate at the Outdoor Inn or Barn

**All Proceeds go to the David Knight Memorial Scholarship.**

**Please contact Elko Chapter President**

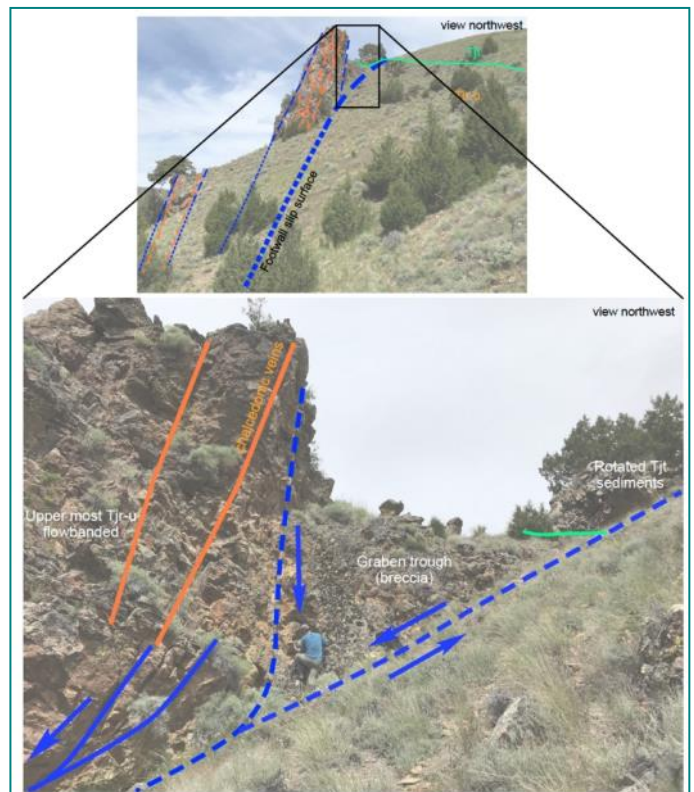
**Justin Milliard to reserve a spot:**

**Cell: 406-529-5787**

**Email: [justin.b.milliard@gmail.com](mailto:justin.b.milliard@gmail.com)**

**Figure 1.**

View northwest along strike of the Jack Creek fault zone. Southwest dipping structure is ~70 meters true width, dips 70-80° southwest and multiple veins can be followed for tens of meters along strike within the fault zone. Unique to this outcrop is a preserved paleo surface rupture feature. Rotated blocks of silicified Tjt are down dropped into a graben trough. Bottom: Graben trough formed at or very near surface rupture during ultimate or penultimate rupture of the Jack Creek fault.



## NEWS FROM THE FOUNDATION

By Cami Prenn, GSN Foundation Chair

I thought spring was in the air but apparently, I was wrong! I didn't pay attention to Punxsutawney Phil but if he predicted six more weeks of winter, he was right. Regardless of the weather, UNR's Geology Field Camp is happening this spring and the GSN Foundation is taking applications for scholarships. The deadline is March 24 and the scholarships will be awarded at the April GSN meeting. All applicants must be GSN student members.

### From UNR's website comes this description of the Field Camp:

*The Department of Geological Sciences and Engineering at the University of Nevada, Reno, offers a comprehensive, capstone, five-week, six-credit summer geology field camp class. The focus of the course will be to develop advanced field skills, including rock description, generation of geologic maps, and illustrating the geometries of deformed rocks with cross-sections. Through a series of mapping-based exercises, field camp students will gain the ability to understand complex field relations in three dimensions. This is enhanced by the incredible geologic setting of these exercises, which includes several world-class geologic sites in eastern Nevada, in the heart of the Basin and Range province, and in eastern California, where the Basin and Range meets the Sierra Nevada.*

*Students will traverse the North American Cordillera during field exercises across Nevada and Utah, with especially memorable field trips to Great Basin National Park and the Snake Range metamorphic core complex.*

*The course fees total \$3,300, which includes tuition costs, vehicle use, campsite fees, operating costs, field manuals, course materials and supplies, cooking supplies and propane, and other miscellaneous fees associated with running the course. Non-residency fees are extra. Food is not included, but we provide group camping gear to cook great backcountry meals, including several campsite cooking stoves, pots/pans, and utensils.*

This will be a memorable spring for these future geologists and we wish them an exceptional experience!



Field Camp Grants

## GSN Spring 2023 Field Trip

The GSN's Spring field trip will be going to eastern Nevada with overnight stays in Ely, Nevada. The dates are set for **June 9-11, 2023** so mark your calendars and watch for email announcements as we get closer to the dates!



## **“FACES OF GSN” - Ian Riddle, Elko, NV**

My name is Ian Riddle. I am an exploration geologist working for SSR Mining as the project geologist for their Buffalo Valley mine property southwest of Marigold mine.

I was born and raised in Pennsylvania just outside of Philadelphia. Growing up my interests were anything but school. I spent my time outside of school skateboarding, camping, hiking, and listening/playing music. My love for the outdoors spurred my interest in geology, especially camping along the Appalachian Trail and Adirondacks as a kid. My parents are both engineers and I knew from a young age that that type of career was not my cup of tea. I graduated from Pennridge High School (Go Rams!) in 2013 and got my BSGS degree from Kutztown University of Pennsylvania in 2017. When I graduated I had absolutely no clue what my next career steps would look like, since in Pennsylvania most geology grads worked either environmental or in construction geology watching concrete dry.



**Me in North Carolina running a backpack magnetometer**

Like any good recent college graduate I took the first job offered at me which was working at a water testing lab. Luckily, I wasn't stuck there too long, an old friend from college gave me a call to send a resume down to his boss at a new exploration project in North Carolina. The company was Piedmont Lithium Limited, and I was happy to accept and go on to what I wanted to do for the rest of my career. At that time, I considered it more as an adventure rather than a career starting point (little did I know).

I started out as a log-dog, they had a large drilling budget for 2018 and with 5 hungry core rigs they needed some help. The rock Piedmont Lithium was looking for was lithium-bearing spodumene and thankfully it was a great place to start my journey into core logging. In North Carolina I learned future skills such as drill planning, oriented core, field work (a lot of field work) from soil surveys, mapping, and magnetometers. Our small team did all the geotech work as well from building pads in the middle of a forest, staking, and cutting core and shipping samples to assay labs.



**Mountain biking in Sun Valley Idaho**

Some of my favorite work there was during the late summer when no drill rigs were turning, I was the only one working on site besides my boss. I'd plan and sample soil grids and run a backpack magnetometer throughout our properties. Thankfully Charlotte was a less than an hour drive from the office and I could meet up with friends and beer in the afternoon when the work was done (cheers!)

I really wanted to continue my journey and work with the larger mining companies out West. Northern Nevada's gold seemed like the major leagues to me and a lot of the more senior geos I worked with at Piedmont had started their careers out there, I knew that's where I wanted to go next. (continued on pg. 10)



In early Fall of 2019, I accepted a contract geologist position with James Carver and his team at Marigold mine. As a contractor, I became well familiarized with Marigold's geology through RC and core logging (core is superior). Nevada precious metal geology was a brand-new world to me since I was so used to simple pegmatite logging. Now was the time to jump into the fire. Around February of 2020 I accepted a full-time position with SSR Mining at Marigold. Eventually in 2022, I was assigned my own projects on the property. SSR's Sterling acquisitions (Trenton Canyon and Buffalo Valley mines) became the big prospects for SSR and together with Marigold, afforded 77 square miles of exploration ground within the most prolific mineral trends in the world. I was very interested in the Buffalo Valley Au distal disseminated/skarn deposit southwest of Marigold mine. I asked if I could take charge of it and became the project geo. The rest is history with the core and RC drills currently drilling away toward developing an economic resource.



**The geo crew at the Buffalo Valley Mine! (L to R: Pat Donovan, Me, Zack Byrd, David Rhys, and Warren Thompson)**



**Angels Landing (bucket list!)**

I have been the project geologist for Buffalo Valley since January 2022 where it has been a fantastic learning experience and became a place to hone my skills as an exploration/development geologist. I am very excited to see where Buffalo takes me further in 2023.

Outside of work you can find me backpacking all around Nevada and surrounding states as well as mountain biking in Nevada, Idaho, and Utah. I love wildlife and landscape photography which has become a major hobby of mine since 2019. I am also a huge music fan and a Dead Head (I think Jerry would have been an exploration geologist). You could find me at a few Dead & Company shows this summer.

I have been a GSN member since 2019 and enjoy attending the Winnemucca and Elko chapter monthly meetings for the free food, beer, and knowledge. GSN meetings mean a lot to me, it's a great place to meet lifelong connections and pick the brains of the best geologists Nevada has to offer.

# Mining Activity Update

JANUARY 2023, Mike Brady

[LMBrady@aol.com](mailto:LMBrady@aol.com)

## NEVADA

Kinross Gold Corp. announced that it acquired an additional 5,018,000 shares of Allegiant Gold Ltd. to now hold a 9.8% interest in the company. (resource @ Eastside = 34,960,000 tonnes @ 0.77 gpt Au inferred) *Press Release:* January 16

Ioneer Ltd. announced that it received a conditional loan commitment of \$700,000,000 from the U.S. Department of Energy for the Rhyolite Ridge Project, conditional upon achieving various project development and environmental milestones. *Press Release:* January 13

StrikePoint Gold Inc. announced that it acquired the Cuprite Property from Orogen Royalties Inc. for \$35,200 cash and 6,428,500 shares. *Press Release:* January 23

Royal Gold Inc. announced that it acquired a 0.24% gross royalty on the Pipeline and Crossroads deposits and a 0.45% gross Royalty on the Cortez Hills, Goldrush, Fourmile and Robertson deposits at the Cortez Complex from the successor company of Idaho Mining Corp. for \$209,100,000 cash. *Press Release:* January 5

Timberline Resources Corp. announced that recent drill results at the Eureka/Water Well Project include 294.7-323.7 meters @ 1.06 gpt Au (BHSE-225C); 303.9-312.4 meters @ 2.38 gpt Au (BHSE-231C) and 314.6-340.5 meters @ 0.72 gpt Au (BHSE-241C). (resource @ Lookout Mountain = 26,254,000 tonnes @ 0.62 gpt Au measured+indicated) *Press Release:* January 17

Ridgeline Minerals Corp. announced that recent drill results at the Selena Project include 263.6-279.5 meters @ 83.5 gpt Ag, 0.1% Pb, 0.14% Zn, 0.02 gpt Au (SE22-39) and 246.3-278.8 meters @ 153.4 gpt Ag, 2.51% Pb, 1.6% Zn, 0.09 gpt Au (SE22-45). *Press Release:* January 24

Fortitude Gold Corp. announced that based on recent drill results at the County Line Project, resources aggregate 1,202,500 tonnes @ 0.97 gpt Au

measured+indicated and 438,000 tonnes @ 0.87 gpt Au inferred. (no previous estimate) *Press Release:* January 25

Fortitude Gold Corp. announced that recent drill results at the East Camp Douglas Project include 60.96-71.63 meters @ 1.49 gpt Au (ECDRC-01); 28.96-33.53 meters @ 0.40 gpt Au (ECDRC-03); 42.67-57.91 meters @ 1.87 gpt Au (ECDRC-08) and 53.34-65.06 meters @ 0.94 gpt Au (ECDRC-11). *Press Release:* January 3

Calibre Mining Corp. announced that recent drill results at the Pan Project include 41.15-48.77 meters @ 0.67 gpt Au (PR22-219); 153.92-166.12 meters @ 1.67 gpt Au (PR22-224); 30.48-38.1 meters @ 0.23 gpt Au (PR22-237) and 24.38-38.1 meters @ 1.36 gpt Au (PR22-238). (reserve = 21,320,000 tonnes @ 0.42 gpt Au proven+probable) *Press Release:* January 17

Getchell Gold Corp. announced that recent drill results at the Fondaway Canyon Project include 108.3-137.7 meters @ 1.8 gpt Au (FCG22-26); 143.1-173.0 meters @ 1.2 gpt Au (FCG22-27) and 182.5-280.5 meters @ 0.8 gpt Au (FCG22-28). (resource = 11,000,000 tonnes @ 1.56 gpt Au indicated) *Press Release:* January 18

Tearlach Resources Ltd. announced that it acquired an option to earn a 70% interest in the Tonopah North Lithium Property from Blackrock Silver Corp. for \$100,000 cash and \$15,000,000 in exploration expenditures over 5 years. *Press Release:* January 10

Headwater Gold Inc. announced that recent drill results at the Spring Peak Project include 256.12-290.84 meters @ 2.73 gpt Au (SP22-13). *Press Release:* January 9

Viva Gold Corp. announced that recent drill results at the Tonopah Project include 155-157 meters @ 3.0 gpt Au (TG2221) and 27-30 meters @ 0.3 gpt Au (TG2222). (resource = 16,204,000 tonnes @ 0.78 gpt Au measured+indicated) *Press Release:* January 17



## Timothy J Percival



Timothy Percival, 72, from Reno, Nevada for 45 years, passed away on January 26, 2023, in Albuquerque, New Mexico.

Tim was born in Stockton, California on July 15, 1950. He earned a Master of Science in Geology from California State University, Fresno. After graduate school he and Ann moved to Reno, NV to begin his work in exploration geology. Early on Tim worked for major field companies and then, for the majority of his life he was an independent exploration geologist in Nevada and around the world. He built a trusted reputation within the geological community.

Growing up and through college, Tim worked in his dad's machine shop in Stockton and retained a love for metal working. When not in the field or at his desk, he could be found working in his garage rebuilding large machine tools and equipment. Tim also appreciated the natural beauty of crystalline minerals and imparted his knowledge and curiosity of the natural world to his sons.

Tim is survived by Ann, his wife of 46 years, sons David and Stephen and his four grandchildren, along with Tim's brothers Thomas & Ted. Tim dearly loved his family and adored his grandchildren. His family will greatly miss him.

## OTHER UPCOMING EVENTS

**March 2, 2023:** **NPGS** Nevada Petroleum & Geothermal Society normally meets on the 1st Thursday of each month at the Tamarac Junction, Reno, NV. Speaker: Steve Fercho, Topic: Fervo Energy's project in Blue Mountain. Please contact [Robert@Hot-Inc.net](mailto:Robert@Hot-Inc.net) if you'd like to attend. [NPGS Web-site](#)

**March 7, 2023:** **Arizona Geological Society** meets at Hexagon Mining Division Office. Speakers: Ralph J. Stegen and David B. Parker. Title: **Magmatism and Characteristics of Supergene and Hypogene Alteration-Mineralization of the Lone Star Porphyry Copper Deposit, Safford District, Arizona.** Time - 6:00 pm. For more information please click here: <https://www.arizonageologicalsoc.org/events>

**March 13, 2023:** **DREGS Denver Region Exploration Geologists Society, CSM Berthoud Hall, 1516 Illinois St., Golden, CO.** Speaker: Karen Wenrich and Jim Paschis Presentation Title: TBA Social hour @ 6pm Talk @ 7pm. For more information, please visit their website: <https://www.dregs.org/events>.

**March 13, 2023:** **SME Northern Nevada Chapter.** Circus Circus Mandalay Room, Reno, NV. **Speaker:** Steve Holmes, Chief Operating Officer, First Majestic Silver. **Title:** To Be Announced. 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](mailto:NNevSME@gmail.com)

## **Companies Join Forces at Energy Conference to Create the Nevada Battery Coalition**

**(Article reprinted from KTVN Channel 2 news website Feb. 2, 2023)**

**([https://www.2news.com/news/nevada/companies-join-forces-at-energy-conference-to-create-the-nevada-battery-coalition/article\\_c2081930-a354-11ed-a182-d78535eee404.html](https://www.2news.com/news/nevada/companies-join-forces-at-energy-conference-to-create-the-nevada-battery-coalition/article_c2081930-a354-11ed-a182-d78535eee404.html))**

Efforts to form the Nevada Battery Coalition were formally announced today during the Nevada Clean Energy & Transportation Conference at the Peppermill Resort Spa Casino.

Coordinated by Caleb Cage of Arc Dome Strategies, the new trade association will form to provide key support to the industry in three primary areas: public awareness, workforce and economic development, and industry promotion.

The member group will include a variety of organizations that operate within every stage of the lithium supply chain.

“Nevada is emerging as a leading lithium battery center in North America,” said Cage. “Every stage of the energy storage supply chain, from exploration to recycling, is present and developing in the state, and it is poised to grow. The current investment in this industry has produced profoundly positive environmental, economic, and national security advantages, all of which are strengthened by uniting the industry through the Nevada Battery Coalition.”

Cage and Nevada Battery Coalition members will focus on the many opportunities that the lithium battery companies will bring to Nevada by strengthening and diversifying the Silver State’s mining, technology, and manufacturing sectors and establishing Nevada as the nation’s lithium battery powerhouse.

“Developing these technologies can help address climate change, it can strengthen our supply chains and help ensure energy independence for our nation, while continuing to spur economic opportunity here and around the country. Nevada is already a major contributor in this space, and the potential is seemingly endless,” Cage said.

Companies participating in establishing the Nevada Battery Coalition include 3PL Operating, Inc., Albemarle Corporation, American Battery Technology Company, American Lithium Corp/Tonopah Lithium Corp, Aqua Metals, Inc., Comstock Inc., Cypress Development, Dragonfly Energy, Loneer USA Corporation, Lithion Battery, Lithium Americas, NV Energy, Tesla, and Quantum Copper.





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The course is taught by academic and industry geologists and mining engineers. No prior knowledge of geology is required. This course meets the criteria for 16 hours of SME Continuing Professional Development credit.

**Registration deadline is April 17, 2023.**

**To register, please contact Rocio Brambila so he can send you the form.**

Rocio Brambila at [brambila@arizona.edu](mailto:brambila@arizona.edu); Webpage: <https://lpeg.geo.arizona.edu/>

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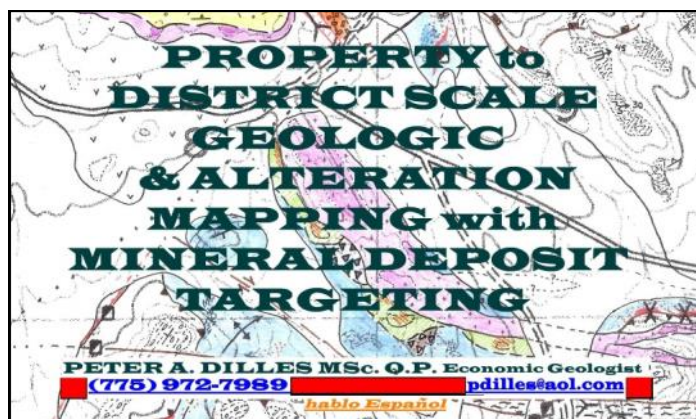
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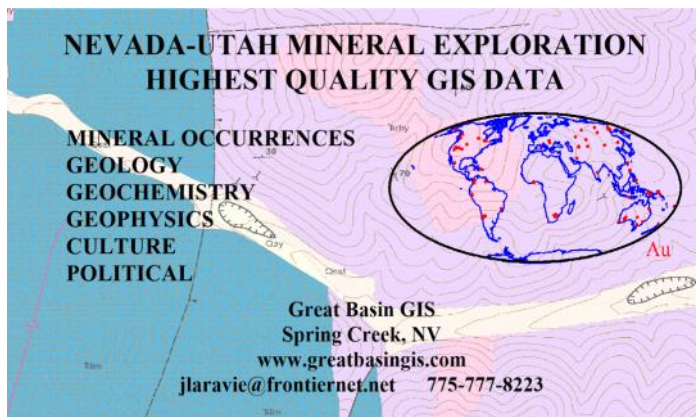
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