



# GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512  
(775) 323-3500 - Hours Tuesday -- Friday, 8 a.m. to 3 p.m. Monday by appointment.

Website: [www.gsnv.org](http://www.gsnv.org) • E-mail: [gsn@gsnv.org](mailto:gsn@gsnv.org)



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Kinross Gold  
[Kelly.cluer@kinross.com](mailto:Kelly.cluer@kinross.com)

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Renaissance Gold  
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## CALENDAR OF GSN EVENTS

Sept. 7, 2017  
THURSDAY

### SO. NEVADA CHAPTER MEETING

The monthly meeting will be held at the Las Vegas Natural History Museum at 900 N. Las Vegas Blvd. Pizza & beer at 5:30 pm, Talk at 6 pm. **Speaker: Paul Dockweiler, Geosyntec consultants. Topic: "Legacy Ore Stockpile Treasure Hunt; Not Gone but Forgotten"**. Contact Paul Dockweiler for more information or if you would be willing to be a sponsor (\$250) or present a talk! Paul's email is: [pdockweiler@geosyntec.com](mailto:pdockweiler@geosyntec.com). Details on page 2.

Sept. 13, 2017  
WEDNESDAY

### WINNEMUCCA CHAPTER MEETING (2nd Wednesday of the month)

The Winnemucca meeting will be held at the Martin Hotel, 94 W. Railroad St., Winnemucca. Refreshments/appetizers at 6 p.m. Talk at 7 p.m. **Speaker: Ronaldo Pinto da Silva, Rye Patch Gold. Title: "A new breath of life for Florida Canyon Mine"**. **Food & Drinks sponsored by ENVIROTECH DRILLING**. For more information, please contact Matt Fithian at: [Matthew.Fithian@ssrmining.com](mailto:Matthew.Fithian@ssrmining.com). Details on page 5.

Sept. 21, 2017  
THURSDAY

### ELKO CHAPTER MEETING (3rd Thursday of the month)

The Elko meeting will be held at the Western Folklife Center, 501 Railroad St., Elko. Refreshments/appetizers begin at 6 p.m. Talk begins at 7 p.m. **Speaker: Garrett Frey, NuLegacy Gold. Topic: Iceberg and Avocado Gold Deposits. Food & Drinks Sponsored by REDCOR DRILLING**. For more info. please contact Mark Travis, [mark.william.travis@gmail.com](mailto:mark.william.travis@gmail.com). Details on page 6.

Sept. 22, 2017  
FRIDAY

### GSN MEMBERSHIP MEETING (4th Friday this month only!)

The GSN meeting will be held at the Reno Elks Lodge, 597 Kumle Lane, Reno, Nevada. Social hour begins at 6 pm, Dinner at 7 pm and talk at 7:45 pm. Speaker and Topic—To Be Announced. **Drinks Sponsored by BOART LONGYEAR**. Please make dinner reservations with Laura Ruud at: [gsn@gsnv.org](mailto:gsn@gsnv.org) or call 775-323-3500. Details on page 2.

Oct. 13-15,  
2017  
GSN Fall  
Field Trip

### GSN FALL 2017 FIELD TRIP

The theme of the field trip is "Shallow Expressions of Carlin Systems". We will head to Eureka, NV with plans to visit Alligator Ridge on Saturday and Emigrant Pass on Sunday. **Registration form is on PAGE 9 of this newsletter** or click here to register using the form online. [www.gsnv.org](http://www.gsnv.org). Deadline is October 2nd but WE EXPECT TO SELL OUT SO PLEASE SIGN UP EARLY!

## G.S.N. SEPTEMBER SPONSOR!



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# **GSN MEMBERSHIP MEETING - SEPTEMBER 22, 2017**

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**For dinner reservations please e-mail [gsn@gsnv.org](mailto:gsn@gsnv.org) or call 775-323-3500  
by 5:00 p.m. on Wednesday, September 20, 2017**

**Social Hour begins @ 6:00 p.m.; Dinner @ 7:00 p.m.**

**Speaker to follow at about 7:45 p.m.**

**SPEAKER & TOPIC TO BE ANNOUNCED BY EMAIL**

**Location: Reno Elks Lodge, 597 Kumle Lane**

**(across from the Convention Center)**

**Dinner Cost is \$25.00 per person**

**(You will be invoiced if you do not cancel your reservation)**

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## **GSN SOUTHERN NEVADA CHAPTER MEETING**

**WEDNESDAY, SEPTEMBER 6, 2017**

**Location: Las Vegas Natural History Museum  
900 Las Vegas Blvd. North**

**Time: Pizza & Drinks @ 5:30 p.m.; Talk begins @ 6:30 p.m.**

**Speaker: Paul Dockweiler, Geosyntec Consultants**

**Title: “Legacy Ore Stockpile Treasure Hunt; Not Gone but Forgotten”**

**Food and Drinks Sponsored by: Sponsor needed**

*The G.S.N. wishes to thank Dan Kappes  
and Kappes, Cassidy & Associates  
for sponsoring the “Silver” Summer Series*



# “FACES OF GSN”

## **BROOKE MILLS**

*Reno, Nevada*

I grew up in Vegas and I come from a large family. My dad is a retired police officer, my mom was an ac-



countant and my stepdad is currently a paramedic at the Nevada Test Site. I try to get him to tell me what goes on there, but to no avail!

Growing up I played baseball and soccer. I enjoy any and all competitive activities. After high school, I began college at the University of Nevada, Reno. Initially, I wanted to be a doctor and chose Biology as my major. I took all the prerequisites for sciences and eventually had to take genetics. I pretty quickly realized that I didn't enjoy genetics. I decided after that semester, I was going to take a semester "off". I took classes I thought I would enjoy (creative writing, yoga, and

geology). I had always collected rocks as a child and my grandparents bought me books to read about the rocks I would find, so I figured I would take geology for fun. After taking intro to geology, I immediately knew that I would change my major to geology.

Once I changed my major, everything started falling into place and I actually enjoyed going to class. I found my peers to be wonderful people who would become lifelong friends. I was lucky enough to have most of my classes carry over, so my last 2 year consisted of mostly geology classes. The adventures that I have experienced since changing my major remind me every day that this is the industry I want to work in.

Field camp was one of my most memorable experiences. Molly and I decided it would be a good idea to share a tent for 6 weeks as we traveled around the western US being exposed to different facets of geology and field life. If you asked us today we would probably do it again, believe it or not. After field camp, the bonds we all formed together were unbreakable. Little did I know the industry and people I would find in it would be just as fun.



I started my senior year of college the summer after field camp. During my senior year I participated in the International Intercollegiate Mining Games in Australia. This allowed for a two week (cont. on page 5)



(Mills, cont. from page 4)



industry sponsored trip to visit mines in Australia and explore the country, in addition to a week-long competition in old style mining techniques. To make the trip even better, we won the International Collegiate Mining Games.

I graduated from Mackay in 2010 and started working for the Florida canyon mine a few days after graduation. I made the move to the bustling town of Mill City, NV in my new (to me) travel trailer. I worked all summer soil sampling, rock chip sampling, and mapping an exploration project. After the summer months on the exploration project,

I sat an RC rig at Florida Canyon from October 2010 to March 2011. After Florida Canyon I worked for Rangefront Consulting for a few months staking claims, soil sampling, fencing off mine hazards, and rock chip sampling.

I was offered a job with Minefinders in Reno and worked there through the buyout by Pan American Silver and stayed on another year after that. I learned a lot about database compilation, GIS, and accounting. In June 2013 Pan American Silver closed their Reno exploration office. I then went to work for Corvus Gold at the North Bullfrog project orienting core. I stayed there for the seasonal position through Thanksgiving and looked for other opportunities during AEMA in 2013.

That's when I met Angelo Karitsiotis, the Director of Business Development for Bureau Veritas Minerals. I have always been interested in the Geochemistry side of things after taking a course in college. I was lucky enough to be given the opportunity to work for Bureau Veritas Minerals. I started working for BV Minerals in January 2014 and have worked my way into Business Development Manager for USA. I can truly say that my experience on both sides of the industry has allowed me to better understand what clients want and expect from an assay lab.



Aside from work, I found CrossFit in 2013. My love of competition has made this a perfect fit for me to live a healthy lifestyle and to push myself physically. I received my CrossFit Level 1 training certificate in 2016 and have been coaching at Regulus Strength and Conditioning for a little over a year. I also enjoy traveling and have visited Thailand, Spain, UK and Germany in the past few years. I am looking forward to seeing where the industry and my travels lead me over the next few years.

# **GSN WINNEMUCCA CHAPTER MEETING**

**WEDNESDAY, SEPTEMBER 13, 2017**

**Location: The Martin Hotel  
94 W. Railroad St., Winnemucca, Nevada**

**Time: 6:00 p.m.—Appetizers/drinks; 7:00 p.m.—Talk begins**

**Speaker: Ronaldo Pinto da Silva, Rye Patch Gold (US) Inc.**

**Title: “A new breath of life for Florida Canyon Mine”**

**Food and Drinks Sponsored by:**

**Envirotech Drilling LLC**

## Summary

Gold was first discovered in 1860 in Humboldt Canyon immediately north of the Florida Canyon Pit. Modern exploration in the district started in 1969, and Pegasus Gold acquired the project, from ASARCO, in 1982. By November 1986, gold production started. Between 1986 and 2015, the Florida Canyon and Standard Gold mines have produced 3.35 million ounces of gold. Production from the Florida Canyon mine ceased in 2011 and in 2015 from the Standard Gold mine. The Florida Canyon mine completed designs and permitting for a new leach pad from 2001 to 2014.

Rye Patch Gold Corp acquired the Florida Canyon and Standard Gold mines in July 2016. With the Company's existing resource project portfolio, the Florida Canyon mine operation offers synergies with Lincoln Hill and Wilco projects located within 30 miles south of the mine along of the I-80 corridor. After the acquisition, three critical items were needed to re-start the Florida Canyon mine. The first was completion of the new leach pad – the South Heap Leach Pad (SHLP); the second was moving and upscaling an existing crusher system; and the third was completing a component change out of the existing haulage fleet. Mining operations started in November 2016 and the Phase 1A portion of the leach pad was completed and commissioned in March 2017. The crusher was moved from the Standard Gold mine to its new location adjacent to the SHLP and modified from 5m tons per annum to 7.2m tons per annum. The mine is currently in a commissioning phase with commercial production expected before the end of the year.

A new geologic and resource model was built based on the geological mapping and cross sectional interpretation of over 4,000 drillholes. The majority of gold mineralization at Florida Canyons occurs in Grass Valley and Natchez Pass formations, and there are three key controls for the mineralization – depositional facies, favorable sediments and structure. The first key control is related to the deposition setting of the Triassic Grass Valley siltstone and sandstone. The siltstone and sandstone lobes represent an ancient submarine fan complex deposited over a deep water claystone. The siltstone is the main host for the gold mineralization. The distribution and thickness of the siltstone is closely related to syn-depositional growth faults which show a long history displacement. During the last compression event (Humboldt Orogeny), the allochthonous Grass Valley sequence was thrust eastward over the Natchez Pass and Prida formations forming a fold and thrust belt along the western side of the Humboldt range. The compressional shearing associated numerous thrust planes and associated hinge zones of tight recumbent folds formed and are the best traps for gold mineralization. During the Tertiary, an extensional reactivation of some of the sin-sedimentary faults occurred and the reactivated faults became the main feeders for hydrothermal solutions carrying gold. Higher grade gold is found related the presence of hydrothermal quartz veins, stockworks and breccias.

Silicification, argillization, and oxidation are also related to this event and have a good correlation with gold. Mineralization is not restricted to oxide, and the grades are higher in the unoxide zones.

The published Florida Canyon resource consists of 1.1 Moz @0.013oz/t Measured & I indicated oxide resource. A large sulfide body is beneath the oxide zone. A total of 260 drillholes have intersected the sulfide with an average grade of 2.36 g/tonne. The oxide and sulfide zones remain open and require additional drill testing.

The Florida Canyon mine has completed all required initiatives for a re-start and is currently in the commissioning phase. Upon reaching commercial production in late Q3 or early Q4 2017, the mine will produce 75,000 ounces of gold per year on an annualized basis and has a 8.5 year mine life. The project has upside for expansion to over 100,000 ounces of gold per year and potential for a large refractory sulfide ore body beneath the oxide.

## **GSN ELKO CHAPTER MONTHLY MEETING**

**THURSDAY, SEPTEMBER 21, 2017**

**Location: Western Folklife Center  
501 Railroad Street, Elko, Nevada**

**Time: 6:00 p.m.—Appetizers/drinks; 7:00 p.m.—Talk begins**

**Speaker: Garrett Frey, NuLegacy Gold**

**Topic: Iceberg and Avocado Gold Deposits**

**Food and Drinks Sponsored by:**



### **ICEBERG AND AVOCADO GOLD DEPOSITS—CARLIN-TYPE GOLD DEPOSITS IN THE CORTEZ TREND, EUREKA COUNTY, NEVADA**

**Roger C. Steininger, Tom Roman, Derick Unger, Garrett J. Frey, and Bryan Kellie**

#### **Abstract:**

NuLegacy Gold Corporation's exploration program at Red Hill, Nevada, has discovered two Carlin-type gold deposits, the Iceberg and Avocado deposits. Iceberg is a near-surface oxidized gold system and the newly discovered Avocado deposit is a sulfide-bearing gold system that shows evidence of hypogene oxidization below 400 m. Through detailed outcrop mapping, geophysical surveys, and rock and soil sampling programs, NuLegacy has identified several other promising gold targets on its 98.5 km<sup>2</sup> property in the Cortez Trend.

The surface at Iceberg is primarily alluvium and Tertiary volcanics overlain by Miocene Northern Nevada Rift basalts. Drilling has encountered a stratigraphic sequence underlying the Rift basalts consisting of an apparent Eocene accumulation of tuffaceous sediments, ash and volcaniclastic rocks.

Stratigraphically below the volcanics are the Devonian Horse Canyon and Wenban formations. The Horse Canyon Formation is a Cortez-area unit consisting of interlayered mudstone, calcareous siltstone, debris flows and minor limestone. The Wenban Formation is a sequence of limestones, turbidites and silty limestone to siltstone/mudstone. All the Devonian units are intruded by felsic dikes of unknown age.

Gold mineralization at Iceberg has been traced along a north-northwest-trending corridor at least 3 km long, several hundred meters wide and several tens of meters thick in at least three horizons: in the Tertiary volcanics, at the Horse Canyon–Wenban contact zone and deeper in the Wenban. Gold in the upper two horizons is oxidized, whereas some of the deeper mineralization is associated with pyrite.

NuLegacy has an extensive 2017 exploration program planned to expand the Iceberg and Avocado deposits, and test new exploration targets.

## NEWS FROM THE GSN FOUNDATION

Cami Prens, Chair

We had a wonderful piece of news a few weeks ago – Pete Galli, who many of you know and worked with, remembered GSN in his will. We heard from his son that he gave us \$50,000 “to support its scholarships, programs and to build its Endowment”. We are most grateful for Pete’s generosity and will act according to his request. It’s a true honor to be appreciated and remembered from the great beyond.

Fall is the time of year we get requests for our K-12 Field Trip Grants and they’ve already started coming in. We pay for transportation to venues that will give the kids an earth science experience, up to a limit of \$300 per class. The application is on the GSN website. If you know any teachers that would like to apply, please direct them to the website and submit an application. This could be the first exposure kids get to rocks and the mysteries of geology!

UNLV is in the process of raising funds to establish the Geological Society of Nevada Scholarship for the UNLV College of Sciences, Department of Geoscience. The GSN Foundation has pledged \$12,000 over six years toward the minimum required amount of \$30,000; the Department of Geoscience is responsible for raising the remaining amount. They have reached out to alumni and other benefactors but if you missed that outreach and would like to help out, all donations are welcome. Please contact your GSN Foundation Chair if you’re interested.

While we’re still dealing with summer temperatures and the holidays seem a long ways off, you should mark December 13 on your calendar to attend the annual Christmas meeting, raffle and auction. It’s not too early to think about donations. It’s the Foundation’s largest fundraiser and we’re counting on our talented members and donors for fabulous items we all would like to own!

*Thank you to our generous donors in AUGUST*

### G.S.N. FOUNDATION

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*Thank you to our generous sponsors for the Elko Chapter AUGUST BBQ*

*Thank you to our generous Sponsors for the Winnemucca Chapter AUGUST BBQ*





# **GSN FALL FIELD TRIP—OCTOBER 13-15, 2017!!**

Richard Bedell

The Fall GSN Field Trip is on the Shallow Expression of Carlin Systems and will visit Alligator Ridge and Emigrant Deposits as well as some more regional outcrops. This will all be done on a bus leaving Reno just after lunch on October 13<sup>th</sup> and going to Eureka, Nevada for lecture and dinner. Saturday will be Alligator Ridge with some additional outcrops and back to Eureka for lecture and dinner. Sunday will be going north to Emigrant Deposit followed by outcrops at Emigrant Pass before heading back to Reno arriving early evening October 15<sup>th</sup>.

Mike Ressel is a co-leader. Craig Mach and Robert Morrell are taking us through Alligator Ridge (thank you Kinross) and Jim Essman is taking us through Emigrant (thank you Newmont). A registration form is on the next page.

**THANK YOU TO OUR SPONSORS! BOART LONGYEAR, PERSHING GOLD, KINROSS GOLD, NATIONAL GOLD MINING CORP., AMERICAN ASSAY LABORATORIES AND ALS MINERALS.**



## **GSN 15th ANNUAL “SILVER” SUMMER SERIES**

Laura Ruud

An audience of about 130 GSN members and friends gathered again at Dan Kappes's home for the 15th Annual “Silver” Summer Series on August 10, 2017. We had the great pleasure of welcoming guest speaker, **Diane Garrett** currently with Wellgreen Platinum, Ltd. Members also associate her name with Romarco Minerals and Oceana Gold. Diane brought a different take on how to value a gold property and bring it to production. Her main focus was on the Haile Gold Mine in South Carolina. It was especially interesting hearing how they needed to reach out to landowners personally, getting to know them by drinking lemonade and sweet tea on their front porches, and gaining their trust. It was amazing to hear how willing they were to sell their land or mineral rights to the mining company once they found out they were real, honest people and not an evil company out to get them. One member took away the ideas from Diane's talk that you don't short-change due diligence, you have to do your homework even it means extra time and effort, then your risk will be reduced and your reward will be optimized.

The GSN wishes to thank once again our sponsors for the Series: **KAPPES, CASSIDAY & ASSOCIATES** for supplying the **BBQ and venue**; **MINE DEVELOPMENT ASSOCIATES** for supplying the **kegs of Great Basin Brewing Co. beer**; **CGS MULE** for supplying the nice variety of wine; and **HUNSAKER, INC.** for supplying the water and ice!

**We also want to thank the GSN officers & members who helped with the hauling, heavy lifting, setup AND cleanup! Special thanks to Dan Kappes for all he does to make this evening great, to Cami Prenn for bringing the kegs of beer and to Jim Estes who always makes sure everything gets done!**







## Geological Society of Nevada (GSN) Fall 2017 Field Trip Friday, Saturday & Sunday, October 13-15, 2017 "Expressions of Shallow Carlin Systems"



The Fall GSN Field Trip is on the Shallow Expression of Carlin Systems and will visit Alligator Ridge and Emigrant Deposits as well as some more regional outcrops. This will all be done on a bus leaving Reno just after lunch on October 13<sup>th</sup> and going to Eureka, Nevada for lecture and dinner. Saturday will be Alligator Ridge with some additional outcrops and back to Eureka for lecture and dinner. Sunday will be going north to Emigrant Deposit followed by outcrops at Emigrant Pass before heading back to Reno arriving early evening October 15<sup>th</sup>.

Friday, October 13, 2017:  
(TENTATIVE SCHEDULE)

1:00 p.m. - Bus departs from GSN office for Eureka, Nevada  
6:00 p.m. - Drinks, Dinner and Speaker at the Owl Club, Eureka, NV  
Overnight at Sundown Lodge or Eureka Gold Country Inn

Saturday, October 14, 2017:  
(TENTATIVE SCHEDULE)

6:30-7:30 a.m. - Breakfast Buffet at the Owl Club (included with registration)  
8:00 a.m. - Bus departs Eureka, NV for Alligator Ridge  
12:00 Noon - Sack Lunch provided  
6:00 p.m. - Drinks, Dinner and Speaker at the Owl Club, Eureka, NV  
Overnight at Sundown Lodge or Eureka Gold Country

Sunday, October 15, 2017:  
(TENTATIVE SCHEDULE)

6:30-7:30 a.m. - Breakfast Buffet at the Owl Club (included with registration)  
8:00 a.m. - Bus departs Eureka, NV for Emigrant Mine/Pass  
12:00 Noon - Sack Lunch provided  
2:00 p.m. - Bus heads back to Reno

**National Gold Mining Corp.**

**ALL PARTICIPANTS WILL NEED PPE - Steel-toed boots, hard hat, safety glasses, orange/lime safety vest.**

### THANK YOU TO OUR GENEROUS SPONSORS!



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Person to contact in case of Emergency:

Name: \_\_\_\_\_

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Lodging:  Single  Double  No Room

Double Roommate: \_\_\_\_\_

**G.S.N. MEMBER REGISTRATION COST:**

- \$270 - Single Room at Sundown Lodge (2 nights)
- \$330 - Single Room at Gold Country Inn (2 nights)
- \$210 - Double Room at Sundown Lodge (2 nights)
- \$260 - Double Room at Gold Country Inn (2 nights)
- \$140 - No Room needed in Eureka, NV
- \$0 - GSN Student Member Helpers (limit 6)

**No Spouse Rate Available - Sign up as Doubles  
(Discount \$30 if spouse doesn't want a book)**

**\*NON-MEMBER REGISTRATION COST:**

**Add \$50 to the rates above**

\*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.

Total amount included with this form: \_\_\_\_\_

**Payments must be made by Monday, October 2, 2017  
No refunds after Wednesday, October 4, 2017**

Payment:  Check # \_\_\_\_\_  Cash  Visa  Master Card  Discover  American Express

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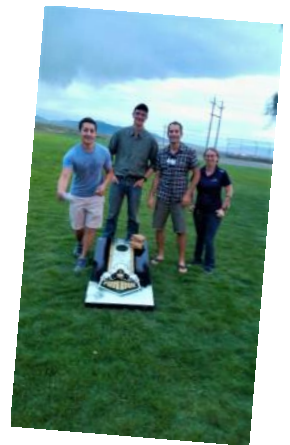
## GSN MEMBERSHIP NEWS

Hello GSN Members, Molly Hunsaker, your membership chair here reminding you to renew your GSN membership dues THIS MONTH! Since our fiscal year runs June to May which means our dues renewal starts happening in June. You won't be kicked out of the club until December, but the sooner you renew the better. You can fill out the membership form found here in the newsletter on page 11. You can also pay your dues online at <http://www.gsnv.org/membership/join-gsn.php>. The paper form is also at this link if you would like to mail it in. There will be a membership table set up at the Reno GSN Meetings where you can pay with cash, card, or check if you would like to renew in person! Dues are \$50 for a regular membership, \$70 if you would like a hardcopy of the newsletter mailed to you, a life time GSN membership is only \$1,250. With a lifetime membership you never have to worry about due renewal again. If you are a student it is ONLY \$10, as the rest of the membership is subsidized by Geotemps, Inc. Thank you Geotemps!!

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### WINNEMUCCA CHAPTER'S SUMMER BBQ

The new GSN Winnemucca officers for 2017-2018 did a great job organizing the annual Chapter BBQ at the Highland Park in Winnemucca on August 9, 2017. Matt Fithian and Tyler Hill both provided corn hole games so the 60+ plus GSN members could try their hand at this game that is a Midwestern staple at all summer functions. It's a lot like horseshoes but with beanbags and a game boards with holes in them. Matt's game was custom decorated with he and his new bride's initials for their wedding last year and Tyler's had the familiar Purdue Boilermaker emblazoned on it from his alma mater. Everyone had a great time despite a little rain shower. Thanks again to **ALS Minerals** and **Boart Longyear** for their sponsorship of the BBQ (catered by the Martin Hotel) and the kegs of beer!



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### ELKO CHAPTER'S SUMMER BBQS

The GSN Elko Chapter officers were very busy this summer as they hosted a BBQ for the GSN members in Elko every month of the Summer! Each month they have a generous sponsor who buys the drinks and provides a grilled feast for everyone to enjoy. This year the sponsors were EM Strategies in June, First Drilling in July, and ALS Minerals along with TerraCore in August. The employees from each company do all the shopping, cooking, serving and cleanup for the crowds of about 60-70 hungry and thirsty geologists and friends.

The Duncan Little Creek Gallery Bar's backyard serves as a very pleasant venue. The Elko Chapter is lucky enough to have a member, Stefan Beck, who volunteers his time by providing live music throughout the evening. Thanks Stefan!

Sadly I don't have any photos from the BBQs this year because my new phone/camera was stolen this summer. At the August BBQ I was having such a nice time catching up with old members and meeting new ones that I didn't remember to take any pictures before the sun went down! Here is one from a few years ago of past officers, Allie Phillips, Gabe Kassos and Justin Milliard.



# GEOLOGICAL SOCIETY OF NEVADA

# 2018

2175 Raggio Parkway, Room 107, Reno, NV 89512 USA

Phone (775) 323-3500 • Fax (775) 323-3599 • [gsn@gsnv.org](mailto:gsn@gsnv.org) • [www.gsnv.org](http://www.gsnv.org)

Offices are located at NBMG's Great Basin Science Sample & Records Library at The Desert Research Institute

Walk-in Office hours: Tuesday through Friday, 8:00 AM - 3:00 PM. Mondays - Call or email for appointment.

The Geological Society of Nevada (GSN) is a non-profit, educational organization whose principal objective is to promote the advancement of geological sciences, especially as they relate to Nevada. GSN supports the dissemination of information through meetings, field trips, publications and academic endeavors. Membership is open to geologists, geophysicists, geochemists, engineers, educators, students, prospectors or anyone else with an interest in the geological sciences and/or the goals of the GSN. The organization is based in Reno with additional Chapters in Elko, Las Vegas and Winnemucca.

The GSN Fiscal Year begins June 1st. Annual dues are \$50.00, Students \$25.00 or Lifetime Membership \$1,250.00. Dues are due prior to December 31st each year. The GSN conducts a Field Trip in the Fall and one in the Spring of each year. Monthly meetings are held September through May in Reno, Elko, Winnemucca, and Las Vegas. If you would like to receive email announcements from one of the G.S.N. Chapters (Elko, Winnemucca or Southern Nevada) please check a box below.

Please help support the GSN Foundation, the Student Dinner Fund, or Student Field Trip Fund when renewing. Foundation dollars are used for the Kindergarten through 12th grade Field Trip Earth Science Grant Program, Nevada Mapping Grants, Field Camp Grants, and scholarships at the University of Nevada, Reno, Great Basin College and University of Nevada, Las Vegas.

## MEMBERSHIP APPLICATION

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**CHECK HERE if everything is the same as before, except as indicated below.**

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 I have met the licensing requirements and want "QP" (Qualified Person) by my name in the directory.

I authorize GSN to send to me, via email: GSN event announcements, publications updates, employment opportunities, etc.

Yes  No

Optional Chapter Affiliation (to receive Chapter announcements directly and Chapter voting rights):

Elko Chapter  Southern Nevada Chapter  Winnemucca Chapter

\$50.00 - Regular Membership Dues 2018 - Email newsletter (International or Domestic) .....

\$70.00 - Regular Membership Dues 2018 - Hardcopy newsletter via postal service (Domestic Only) .....

\$10.00 - Nevada Student Membership Dues 2018  \$25.00 - Non-NV Student Membership Dues 2018 .....

(NV student's dues are subsidized \$15/ea. by Geotemps, Inc.)

LIFETIME MEMBERSHIP - 25 X the Current Dues Rate (25 x \$50 in 2018 = \$1,250.00) .....

### DONATIONS:

(Foundation Donated Funds will be used for unrestricted grants and scholarships unless otherwise specified below)

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# ROCK TALK



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT Washington, D.C. 20240  
<http://www.blm.gov>  
MEMORANDUM TO THE SECRETARY



DATE: August 4, 2017

FROM: Kathleen Benedetto, Special Assistant to the Secretary – BLM *Kathleen Benedetto*  
John F. Ruhs, BLM Acting Deputy Director *John F. Ruhs*  
Co-Leads, Department of the Interior Sage-Grouse Review Team

SUBJECT: Response to Secretarial Order 3353

The Department of the Interior Sage-Grouse Review Team (DOI Team) submits the attached report in response to Secretarial Order 3353, "Greater Sage-Grouse Conservation and Cooperation with Western States" (June 7, 2017) (the Order). The DOI Team has coordinated with the Sage Grouse Task Force (SGTF) and the U.S. Forest Service to identify short and long term actions to meet the purposes of the Order. Since there is variation among the Bureau of Land Management (BLM) plans and among the State plans and programs, as well as with the resource issues and concerns in each State, each State has expressed interest in pursuing action on a different subset of the items included in the report. The DOI Team requests the Secretary direct the appropriate DOI bureaus to implement the recommendations and periodically report outcomes to the Deputy Secretary. The DOI Team recommends continued collaboration with the States, initiation of stakeholder engagement, implementation of the short-term recommendations, and investigation of potential plan amendments, beginning with these actions:

- Identify options to incorporate updated habitat boundaries into habitat management areas;
- Clarify mechanisms to modify waivers, exceptions, and modifications in priority habitat management areas (PHMAs);
- Modify or issue new policy on fluid mineral leasing and development, including the prioritization policy;
- Issue or modify policy and provide training on use of assessment and monitoring data and tools, the habitat objectives table from the 2015 Greater Sage-Grouse (GRSG) Plans and to increase flexibility in grazing management;
- Identify options for flexibility when applying adaptive management decisions;
- Investigate options to streamline use authorizations with little impact on GRSG;
- Clarify the appropriate use of compensatory mitigation and identify opportunities to increase consistency between the Federal and State plans;
- Work with States to improve techniques and methods to allow the States to set appropriate population objectives; and
- Investigate the removal or modification of Sage-grouse Focal Areas in certain

States. Attachment: Report in Response to Secretarial Order 3353

.....

Please note if you'd like to see the full 13-page "Report in Response to Secretarial Order 3353" you can contact Laura Ruud at the GSN office or Lynne Volpi at the Women's Mining Coalition: [lvolpi@frontiernet.net](mailto:lvolpi@frontiernet.net).

Some of you may remember that Kathy Benedetto served on the GSN Executive Committee in Reno from 1989-1991. We applaud her success, being appointed the Special Assistant to the Secretary of the Bureau of Land Management!



# Activity Update

Mike Brady, July 2017

[www.activityupdate.com](http://www.activityupdate.com)

## NEVADA

Prophecy Development Corp. announced that it leased the Louie Hill Property from private interests for \$28,000/year advanced royalty payments. (resource = 7,670,000 tonnes @ 0.27% V2O5 inferred) *Press Release:* July 13

Klondex Mines Ltd. announced that based on recent studies at the Hollister Project, reserves aggregate 181,300 tonnes @ 18.9 gpt Au, 107.2 gpt Ag proven+probable. (resource = 389,600 tonnes @ 16.6 gpt Au, 86.9 gpt Ag measured+indicated) *Press Release:* July 13

Nevada Sunrise Gold Corp.(20.9%) announced that recent drill results at the Kinsley Mountain Project include 224.0-228.6 meters @ 12.4 gpt Au (PK221); 173.7-178.3 meters @ 0.47 gpt Au (PK222); 149.4-152.4 meters @ 1.37 gpt Au (PK223) and 163.1-170.7 meters @ 6.84 gpt Au (PK224). (resource = 5,529,000 tonnes @ 2.27 gpt Au indicated) *Press Release:* July 13

Astorius Resources Ltd. announced that recent drill results at the Rainbow Canyon Project include 100.58-109.73 meters @ 3.69 gpt Au (RCR-03); 146.3-161.54 meters @ 0.12 gpt Au (RCR-04) and 62.48-70.1 meters @ 0.16 gpt Au (RCR-05). *Press Release:* July 6

Newrange Gold Corp. announced that recent drill results at the Pamlico Project include 56.4-70.1 meters @ 5.99 gpt Au (P17-12); 50.3-60.98 meters @ 0.81 gpt Au (P17-13); 1.52-72.41 meters @ 3.57 gpt Au (P17-17) and 54.12-64.02 meters @ 15.27 gpt Au (P17-18). *Press Release:* July 5

NuLegacy Gold Corp. announced that recent drill results at the Iceberg Project include 85.4 meters @ 0.64 gpt Au (IN17-03). *Press Release:* July 25

Gold Standard Ventures Corp. announced that based on recent drill results at the Pinion Project, the Dark Star Deposit aggregates 15,380,000 tonnes @ 0.54 gpt Au indicated and 17,050,000 tonnes @ 1.31 gpt Au inferred. (was 23,110,000 tonnes @ 0.51 gpt Au inferred) *Press Release:* June 29

Coeur Mining Co. announced that it acquired 6,200,000 shares (6.23%) of Corvus Gold Inc. for \$3,505,000. (resource @ North Bullfrog = 4,040,000 tonnes @ 2.43 gpt Au, 18.9 gpt Ag measured) *Press Release:* July 7

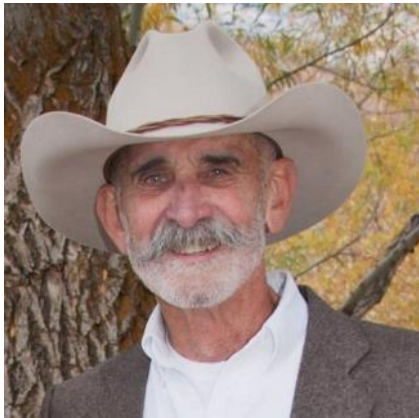
AngloGold Ashanti Ltd. announced that it acquired an option to earn a 100% interest in the Sili-con Property from Renaissance Gold Inc. for \$3,000,000 cash over 3 years. *Press Release:* June 30

Emgold Mining Corp. announced that it acquired an option to earn an 80% interest in the Golden Arrow Property from Nevada Sunrise Gold Corp. for \$250,000 cash, 2,500,000 shares and \$2,750,000 in exploration expenditures over 3 years. (resource = 11,065,000 tonnes @ 0.82 gpt Au, 11.2 gpt Ag measured+indicated) *Press Release:* July 18

Scorpio Gold Corp.(70%) announced that based on recent studies at the Mineral Ridge Project, the heap leach pad contains 6,468,000 tonnes @ 0.58 gpt Au measured+indicated and 60,000 tonnes @ 0.55 gpt Au inferred. (no previous data) *Press Release:* July 12

Premier Gold Mines Ltd. announced that recent drill results at the McCoy-Cove Project include 680.8-676.7 meters @ 13.3 gpt Au, 3.7 gpt Ag (PG17-24); 639.8-651.4 meters @ 7.37 gpt Au, 4.3 gpt Ag (PG17-25) and 554.3-566.8 meters @ 14.87 gpt Au, 8.8 gpt Ag (PG17-26). (resource = 614,000 tonnes @ 11.57 gpt Au indicated) *Press Release:* July 26

Columbus Gold Corp. announced that it would spin-off its Nevada properties into a new company named Allegiant Gold Corp. *Press Release:* July 21



**Anthony (Tony) Dorff**  
**October 15, 1943—July 27, 2017**

Anthony (Tony) Dorff (GSN member) passed away July 27, 2017. Tony was born October 15, 1943 in Vero Beach, FL. He spent seven years in the Army, serving two tours in Vietnam as a Special Forces medic. His service was a source of pride and enduring friendships for him and his family. Tony was the recipient of the Combat Medic Badge, two Purple Hearts, Army Commendation Medal with “V” device, Air Medal, Bronze Star with “V” device and oak leaf clusters, Soldiers Medal, Vietnam Cross of Gallantry with Palm, and many other citations.

After his Honorable Discharge from the Army Tony graduated from the University of Texas in 1973 and completed a 40 year career as a geologist, where his profession took him across the US, Canada, Africa and Mexico, before his retirement from Newmont in 2013. Some of the mines Tony worked at and mentored younger geologists include Nevada Goldfields Inc. at Aurora, NV where he made the discovery of the blind low-sulfidation veins that became the Juniata pit. He also worked for Alta Gold in Ely NV, for Echo Bay Mines Limited at Lupin in Nunavut Territory and McCoy-Cove, NV, and for Placer Dome at Getchell, NV. Tony ended his career with Newmont as the Nevada Underground Geology Manager.

Tony maintained dual US and Canadian citizenship, and was proud to call both, home. When he wasn't working Tony enjoyed golf, dancing, shooting, and just hanging out with his dogs, his family and the many good friends he made over the years.

Tony is survived by his wife, Vina, his two sisters, Cindy (Bob) Buchanan and Shirley (Frank) Sloan, his four children, Audra, Parker (Ashley), Sabra and Baron (Karen), his two grandchildren, Nathan and Gretta, and many nieces and nephews. He will be interred at Arlington National Cemetery.

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**TMCC GEOLOGY PHOTOGRAPHY CLASS**

**WHAT:** Truckee Meadows Community College Continuing Education workshop, “Incandescent Nevada: Photographing the Desert’s Fascinating Geology.” Discover how to create compelling photographs of world class geologic landscapes in the Reno region. Join GSN member & award-winning photographer/TMCC instructor Mark Vollmer in capturing the desert’s intricate forms, light, shadows and beautiful colors awash in afternoon light. He will show, in a morning classroom slide show lecture followed by a field shoot later in the day, how to bring the amazing variety of rock & land formations to life in your images. This class is open to all abilities and formats. A working knowledge of your camera will be helpful.

**WHEN:** Saturday, Sept. 30, 2017: slide show classroom lecture 9am-12pm, field shoot 2-6pm.

**WHERE:** TMCC Meadowood Center in south Reno for classroom session, photo shoot locale TBA.

**FEE:** \$89.



**TO REGISTER:** 775-829-9010; [https://truckee.augusoft.net/index.cfm?method=ClassInfo.ClassInformation&int\\_class\\_id=24417&int\\_category\\_id=1&int\\_sub\\_category\\_id=1&int\\_catalog\\_id=0](https://truckee.augusoft.net/index.cfm?method=ClassInfo.ClassInformation&int_class_id=24417&int_category_id=1&int_sub_category_id=1&int_catalog_id=0)

# *5th Annual Great Basin Rendezvous*

**September 15-17, 2017**

Come join your fellow explorers and their families at Camp Lamoille in the beautiful Ruby Mountains of Elko County for our *Fifth* time around!!

*Hosted by: Nevada Mineral Exploration Coalition, 2017 Great Basin Rendezvous Committee*

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REGISTER ONLINE NOW AT: <https://www.nvmec.org/gbrregistration>.

Contact Dave Shaddrick [dave@dshaddrick.com](mailto:dave@dshaddrick.com) or JoAnn Newbury [jnwebury.consulting@yahoo.com](mailto:jnwebury.consulting@yahoo.com) for info.



## **OTHER UPCOMING EVENTS**

**5 September: Arizona Geological Society.** Speaker: Vic Baker; Title: "The Influence of the 18th Century Enlightenment on the Natural Sciences, Especially the Earth Sciences and Evolution". Sheraton, 5151 E Grant Rd. (& Rosemont), Tucson AZ 85712. Please click on the link to RSVP and find directions: <http://www.arizonageologicalsoc.org/event-2580716>. (There will be two tables of publications, guide books, and dissertations at the September 5 AGS Dinner Meeting, free for the taking. Almost everything concerns ore deposits. Interested people should bring one or two double bagged shopping bags. )

**11 September: Northern Nevada Section of the SME Meeting.** We will feature updates on local and national SME activities and opportunities, and will present the 2017 scholarship awards.. For more information email: [NNevSME@gmail.com](mailto:NNevSME@gmail.com)

**12-16 September: Association of Environmental & Engineering Geologists,** 60th Annual Meeting, Antlers Hotel, Colorado Springs, CO. Click on the link for more information. <https://www.aegannualmeeting.org/>

**15-17 September: the NMEC (Nevada Mineral Exploration Coaliton) is hosting the 5th Annual Great Basin Rendezvous** at Camp Lamoille near Elko, NV. Contact Dave Shaddrick, [Dave@dshaddrick.com](mailto:Dave@dshaddrick.com) or JoAnn Newbury [jnwebury.consulting@yahoo.com](mailto:jnwebury.consulting@yahoo.com) for more information.

**17-20 September: SEG 2017 Conference: Ore Deposits of Asia: China and Beyond.** Beijing, China. Website: <http://www.seg2017.org/>

**25-29 September: Nevada Water Resources Association: Fall Water Event.** 5650 Riggins Ct., Reno, NV. Visit their website for all the details and to register. <http://www.nvwra.org/>

**29-30 September: Utah Geological Association Annual Field Trip: "Geology and Resources of the Wasatch: Back to Front".** Go to [www.utahgeology.org](http://www.utahgeology.org) and look for the link for the 2017 field trip. Registration closes September 1st!

**11-12 October: SME Conference in Florida:** The Florida Section of the Society for Mining, Metallurgy & Exploration Inc. (FLSME) is pleased to be hosting the 32nd Annual Regional Mining Conference at the RP Funding Center (formerly the Lakeland Center) in Lakeland, Florida. The 2017 conference theme is "Mining – It's For Everyone". An exclusive tour of Streamsong Resort, a one-of-a-kind reclamation project by Mosaic, will be available on October 10. For more information, visit [www.smefloridaconference.com/](http://www.smefloridaconference.com/).





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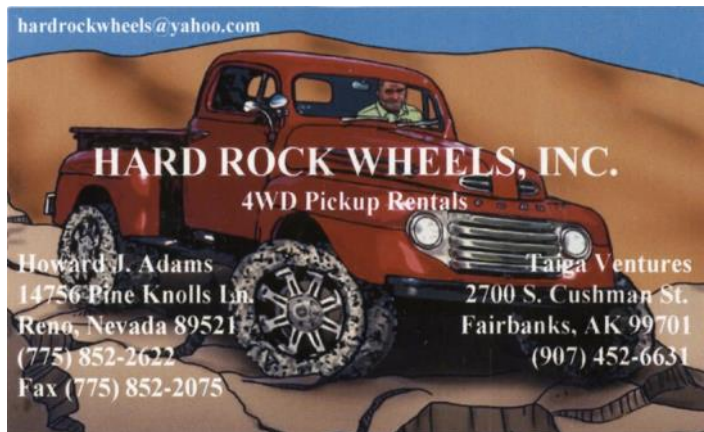
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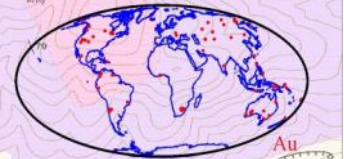


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Desert Peach above Silver City, NV—Spring 2017 field trip

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GSN backpacks travel the world! In the 2 photos on the left, provided by Dieter Krewedl, the GSN 2010 backpack visited the St. Andrews Golf Course in Scotland and the University of St. Andrews Geoscience Building in the UK. In the 2 photos on the right, provided by Elizabeth Zbinden, the 2010 backpack traveled with Dave Shaddrick on the SEG field trip to Norway in June.

(Feel free to submit your GSN backpack photo and we'll put it in the newsletter if there is space.)

