



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 • E-mail: gsn@gsnv.org



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CALENDAR OF GSN EVENTS

May Meeting Date TBA

SO. NEVADA CHAPTER MEETING (1st Thursday of the month)

The meeting will be held at the Las Vegas Natural History Museum, 900 Las Vegas Blvd North. **Speaker and Topic To Be Announced.** Please contact Josh Bonde for more information: Joshua.bonde@unlv.edu.

May 6-8, 2016 FRI-SUN

G.S.N. SPRING 2016 FIELD TRIP is FULL!

The field trip "Nevada's Golden Giants: Goldstrike and Gold Quarry" is sold out.

May 11, 2016 WEDNESDAY

WINNEMUCCA CHAPTER MEETING (2nd Wednesday of the month)

The meeting will be held at the Martin Hotel, 94 W. Railroad St., Winnemucca, NV. Drinks at 6 p.m. Appetizers at 6:30 p.m. and talk at 7:00 pm. **Speaker: Michael Harp, Gold Standard Ventures Corp.** Title: "A New Discovery within the Dark Star Corridor, Railroad-Pinion District, Elko County, Nevada". **Food & Drinks Co-Sponsored by: COLOG and DRIFT DRILLING.** For more info please contact James Carver @ jcarver@silverstandard.com. Details and abstract on page 6.

May 19, 2016 THURSDAY

ELKO CHAPTER MEETING (3rd Thursday of the month)

The meeting will be held at the Western Folklife Center, 501 Railroad St., Elko, NV. Refreshments begin at 6 pm. Talk at 7:00 pm. **Speaker: Tom Huebner, Barrick Cortez.** Title: "Sequential Gaussian Simulation (SGS); A Geostatistical Tool to Quantify Uncertainty". **Food & Drinks Sponsored by: TIMBER-LINE DRILLING.** For more info please contact Mark Travis at: mark.william.travis@gmail.com. Details on page 7.

May 20, 2016 FRIDAY

GSN MEMBERSHIP MEETING (3rd Friday of the month)

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: Mark Showalter.** Title: "Pluto Up Close: The Inside Story of the New Horizons Flyby". **Drinks Co-Sponsored by: FALCON DRILLING & HARRIS EXPLORATION DRILLING.** Cost for Dinner—\$25. Please make reservations for dinner with Laura Ruud at the GSN office: gsn@gsnv.org or call 775-323-3500. Details and abstract on page 3.

June 17, 2016 FRIDAY

ALL GSN MEMBER PICNIC—Personally hosted by GSN's Board Members & Directors! Rancho San Rafael Park, Peavine Pavilion, Reno. See pg 13.

June 18, 2016 SATURDAY

GSN ANNUAL GOLF TOURNAMENT—Washoe Golf Course, Reno, NV. Sponsored by AMERICAN ASSAY LABS. Registration form on page 9.

G.S.N MAY MEETING CO-SPONSORS



**FALCON
DRILLING**



FROM THE PRESIDENT
Elizabeth Zbinden, G.S.N. President 2015-2016
MAY 2016

Last week I was in Washington, D.C. with nearly 40 other women of the Women's Mining Coalition (WMC) for the annual Fly-In. A Fly-In is an event where a group of citizens travels to the Capital and meets with legislators, regulators, and staff, to advocate for a cause near and dear to their hearts and livelihoods. On page 15 of this newsletter is an article about the Fly-In by Lynne Volpi, WMC Coordinator and Chair of the GSN Board of Directors. Here I'll give you a more of a travelogue version.

One of the great things about the venture is the occasion to exercise my First Amendment right to "petition the Government for a redress of grievances" (that's a real quote from the Constitution). There were all sorts of groups out there during the same days we were, ordinary people talking to their government. Some interest groups were easy to identify, for example the firefighters in their dress uniforms, or WMC in color-coordinated shirts and brass badges. It is enlightening to remember that every one of the ordinary-citizen groups, including *us*, could be considered a "special interest group". Think about that the next time you throw the phrase around!

In 3½ days I attended 30 meetings and each day walked more than on a typical geology field day. The meetings typically consisted of three or four WMC-ers and one legislative staff person. It is the staffer's job to understand and distill our message, and transmit it to his/her boss along with recommendations. Sometimes the staffer would say "Yep, we are with you all the way on all your issues." Other times they were relatively clueless about our issues, or politely noncommittal. The ones I liked best were the thoughtful ones, who know about the issues and had well-considered reasons for agreeing or, yes, disagreeing on points.

This leads to a review of my year's worth of columns for the GSN Newsletter. I have encouraged you, my readers, to Participate. Don't just grumble into your beer, Do Something. Over the course of seven columns, I have asked you to:

- Keep yourself educated on issues of importance to you, especially Public Lands issues which are important to any geologist who needs to do field work.
- Vote. In caucuses, primaries, local, state, and national general elections (Nevada's Primary will be June 14th).
- Attend meetings called by public agencies asking for input on issues (such as the scoping meetings for the proposed mineral withdrawal of Sagebrush Focal Areas).
- When an agency asks for comments, make comments. This can include physical documents, e-mail, and standing up to speak in a meeting.
- Apply to join a BLM Resource Advisory Council.
- And remember you are a geologist. Submit a geologic map to NBMG for publication!

Don't worry; I'm not going to ask you all to trek to Washington D.C. or even to Carson City. But I do ask you to continue to do all of the above, and to stay engaged!

The next GSN Newsletter you receive will be in August, and This Space will be filled by writings from your new President, Alan Coyner. I am happy to hand the tasks of the GSN President to such able hands.

For a successfully completed year, many thanks to Laura Ruud, our Executive Manager and ongoing Face of GSN who always keeps us going in the right direction. Thank you to our sponsors who keep our monthly meetings in four locations supplied with refreshments! Thank you to a fabulous Executive Committee. It has been great working with this team. Most of the officers will continue to next year, which gives me happy confidence in the way forward for our Society. Happy Trails, everyone!

***The G.S.N. wishes to thank
GEOTEMPS, INC. for sponsoring our
APRIL 15, 2016 meeting in RENO!!***



GSN Friday, May 20th, 2016 Membership Meeting

For dinner reservations, please e-mail gsn@gsnv.org or call 775-323-3500

by 5:00 p.m. on WEDNESDAY, MAY 18th!!

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

Speaker to Follow @ 7:45 pm

Location: RENO ELKS LODGE, 597 KUMLE LANE (across from the Convention Center)

DINNER COST—\$25.00 per person (Reservation no-shows will be invoiced.)

GUEST SPEAKER: Mark Showalter, SETI Institute

Title: “Pluto Up Close: The Inside Story of the New Horizons Flyby”

Abstract:

NASA's New Horizons spacecraft passed through the Pluto system on July 14, 2015, sending back our first closeup views of that distant, mysterious world and its retinue of moons. The spacecraft executed its observing sequence flawlessly, and the images are still being slowly downlinked back to Earth. The images have already revealed a remarkable landscape containing broad plains, mountain ranges several kilometers high, glaciers and extinct volcanoes. This landscape is surrounded by a thin, blue atmosphere. Pluto's large moon Charon also shows mysterious geology, including a globe-encircling chasm. Four small outer moons have irregular shapes and have been found to spin wildly. Mark Showalter, a member of the New Horizons science team, will recount the inside story of the historic flyby and discuss the latest scientific results.

Bio:

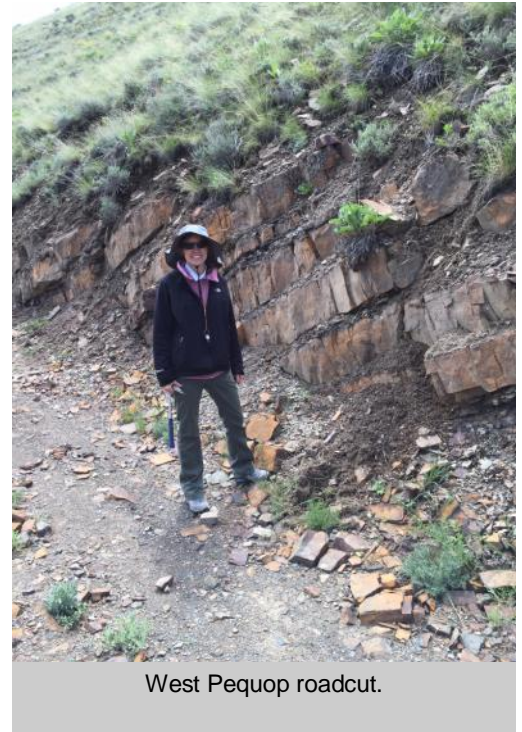
Dr. Mark Showalter, a senior research scientist at the SETI Institute in Mountain View, studies the dynamics of rings and small moons in the Solar System. His investigations using Voyager data and the Hubble Space Telescope have led to the discoveries of six planetary moons: Pan at Saturn, Mab and Cupid at Uranus, Kerberos and Styx at Pluto, and an as yet unnamed moon of Neptune. He is a co-investigator on NASA's Cassini mission to Saturn and its New Horizons mission to Pluto. Recently, he and has been deeply involved in the studies of Pluto's small moons and the search for faint rings of dust.

FACES OF GSN

Christina “Chrissy” Ricks

I grew up in Spokane, Washington and went to Lewis and Clark High School, located in downtown Spokane. I always loved rocks as a child, but I was a little more interested in archaeology and anthropology. It wasn't until I was a young woman that I realized that geology was the career path I desired. I decided in the winter of 2005 that I was going to major in geology, after having taken a little over a year off after I graduated with an Associate of Arts degree to work at Sally's House for the Salvation Army. Sally's House is an emergency receiving foster care facility. Though this type of work is rewarding, as it deals with helping children, I soon realized that the foster care world was not my calling.

I graduated from Eastern Washington University's geology program in the spring of 2008. During my studies as a geologist, I was privileged to work at the USGS in Spokane, WA for a few years aiding in the office and helping the geophysical crews out of Golden, Colorado for a little over two years. As a student geologist, I also worked at Teck Cominco's Pend Oreille Mine, located in NE Washington State logging core. I was appointed geology club president for two years, and was a teaching assistant for EWU's field camp in the spring/early summer 2008.



West Pequop roadcut.

After I graduated with a Bachelor of Science in Geology, I went to work for Agnico Eagle on their West Pequop Project located in the Pequop Mountains in NE Nevada. I have worked on the project for most of my short career along with the Summit Project, also located in the Pequop Mountains, and north of Long Canyon. I have spent a short stint in the Yukon where I aided Agnico on a tungsten-moly porphyry system, which was an exciting change from the typical Carlin-type I have been working in.



Soil sampling in the Pequop Mountains.

I admire the people of Agnico Eagle as this company has provided to me a sturdy and structured foundation that has allowed me to grow as a geologist and as a person over the years in ways words cannot express. After the death of my twin brother in early 2013, this company of-fered support and guidance through this tough period in my life, of which I am so thankful. Through both Ag-nico Eagle and the GSN, I have met countless com-



Hugging indian rice grass in NE Nevada.

mendable geologists and people of this mining and exploration industry that have left a positive and lasting impact. I have visited numerous mines and properties around Nevada State through Agnico and by attending GSN field trips. I hope to attend many more in the future! (Cont. on page 5)

(Ricks —Cont. from page 4)

One of my most memorable experiences while working in industry was that I had lined the drill rig 180 degrees off the poorly indicated azimuth by accident. The hole ended up being the highest grade intercept and one of the longest intercepts of the season, and this prompted more drilling around the hole. The interesting thing is, once the rig pointed and drilled in the proposed direction, it came out as a dud hole. Shows you how 'luck' can be a necessary component to this industry!



Working in the snow in the West Pequops.



Getting ready to go out mapping.



Mapping in the West puops.



Inspecting re-growth on reclamation with BLM.

Thank you to the WINNEMUCCA CHAPTER
Meeting SPONSOR
for APRIL 13, 2016!



*Thank you to our generous
donors in April*

G.S.N. FOUNDATION

Silver Sponsor

Louis Hill

G.S.N. Student Dinner Fund

Hal Elson
Jerry Mohling
Jeremy Platt

G.S.N. Student Field Trip Fund

Jeremy Platt

GSN WINNEMUCCA CHAPTER MEMBERSHIP MEETING

WEDNESDAY, MAY 11, 2016

Location: The MARTIN HOTEL, WINNEMUCCA, NV

Time: Drinks @ 6:00 p.m., Appetizers @ 6:30 p.m., Talk begins @ 7:00 p.m.

SPEAKER: Michael Harp, Gold Standard Ventures Corp.

TITLE: “A New Discovery within the Dark Star Corridor, Railroad-Pinion District, Elko County, Nevada”

Food and Drinks Sponsored by: DRIFT DRILLING & COLOG



borehole geophysics / hydrophysics



Abstract:

A New Discovery within the Dark Star Corridor, Railroad-Pinion District, Elko County, Nevada

Michael T. Harp, Robert J. Edie, Mac R. Jackson, Steven R. Koehler, John W. Norby, Neil E. Whitmer, Steve Moore, and James L. Wright, Gold Standard Ventures Corp.

The Dark Star deposit is located within Gold Standard Venture Corp.'s (GSV) 115 km² Railroad-Pinion property. It is the first NI43-101 compliant resource hosted in Pennsylvanian rocks defined on the Carlin Trend. In March 2015, APEX Geosciences estimated an inferred resource based on existing historic drilling at Dark Star of 23.11 million tonnes grading 0.51 g Au/t, totaling 375,000 ounces of gold. In November 2015, GSV exploration drilling intersected 149.4 m of 1.38 g Au/t from 216.5 to 365.9 meters in DS15-10 and 157 m of 1.51 g Au/t from 103.7 to 260.7 meters in DS15-11. These intercepts are 515 meters to the north of the Dark Star resource and are thicker and higher grade than existing intercepts within the resource. Exploration potential remains open in multiple directions. In December of 2015, Gold Standard twinned RC hole DS15-11 with DS15-13, the first core hole into the deposit. DS15-13 intersected vertically-extensive, oxidized intercepts of **15.4 m of 1.85 g Au/t and 97.0 m of 1.61 g Au/t**, confirming a thick zone of oxidized gold mineralization originally identified in RC hole DS15-11.

Dark Star occurs in a 400-600 m wide, 6 km long, linear, north trending horst. The east-bounding fault is a north-northeast-striking, 75 degree east-dipping large displacement normal fault with Eocene Elko Formation sedimentary rocks and Indian Well Formation volcanic rocks in the hanging wall. The west bounding fault is a north-northeast striking, 65 degree west-dipping normal fault that has less offset, dropping the host section 100 meters in that direction. Historic drill intercepts, alteration, and geochemical samples indicate the horst is prospective along its defined length.

Gold is hosted in Pennsylvanian rocks of the Tomera and Moleen Formations. Three correlatable local rock units are defined at Dark Star. The uppermost unit (50 m) is a silty limestone dominant rock package with interbeds of sandstone, conglomerate, bioclastic limestone and silty mudstone. The middle unit (50 to 100 m) is the main gold host at Dark Star and is composed of interbedded coarse conglomerate debris flows with a sand to silt matrix, bioclastic limestone clasts, siltstone and a basal silty mudstone. The lower unit (>400 m) is a calcareous siltstone with interbedded bioclastic limestone, sandstone and conglomerate. Felsic dikes and sills occur along structures and at lithologic contacts.

Dark Star is an oxidized, Carlin-Type deposit, in which gold-bearing fluids were channeled into permeable, open space zones along feeder structures. Oxidation products are primarily limonite with lesser hematite. Alteration of the upper and middle units is characterized by decalcification, silicification, argillization and barite. Several stages of strong tectonic, collapse and hydrothermal breccia are pervasive through the mineralized zone. Alteration of the lower siltstone unit is characterized by decalcification, argillization, and weak silicification. At present, gold at Dark Star is thought to have elements of both fracture and bedding control. Drusy quartz occurs on fractures. Gold bearing fluids may have moved laterally along beds that originally had a calcareous matrix. Dark Star has vertically extensive, pervasive oxidization from the surface to a depth of at least 370 meters. However, thin zones of unoxidized rock are present. These zones comprise less than 2% of the mineralized rock in the deposit. Trace elements related to gold are As, Hg, Sb, Ba, Zn, and Se.

GSN ELKO CHAPTER MEMBERSHIP MEETING

THURSDAY, MAY 19, 2016

Location: The WESTERN FOLKLIFE CENTER, ELKO, NEVADA

Time: Refreshments/Appetizers @ 6:00 p.m., Talk @ 7:00 p.m.

SPEAKER: Tom Huebner, Senior Project Geologist, Barrick Cortez

TITLE: “Sequential Gaussian Simulation (SGS); A Geostatistical Tool to Quantify Uncertainty”

Food and Drinks Sponsored by: TIMBERLINE DRILLING INC.



Abstract:

Modern geostatistical methods provide tools to calculate and evaluate uncertainty in ore body modeling. Uncertainty assessment aids in decision making by opening the door to risk based mine planning and forecasting. Evaluating uncertainty and understanding risk to the project or mine plan has been traditionally undervalued in the mining industry. Today, more emphasis is being placed on targeted capital allocation and increased mining efficiencies making uncertainty quantification and risk tolerance much more relevant. Here I have evaluated a methodology to quantify uncertainty to the ore routing criteria of material being mined at Barrick's Cortez Hills Underground gold mine in northern Nevada.

GSN SOUTHERN NEVADA CHAPTER MEMBERSHIP MEETING

MAY DATE TO BE ANNOUNCED

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

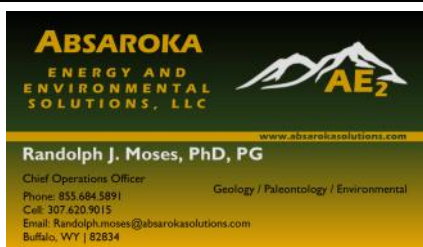
Time: Pizza & Drinks @ 5:30 p.m., Talk begins @ 6:30 p.m.

SPEAKER & TITLE: To Be Announced

Contact Josh Bonde to sponsor—joshua.bonde@unlv.edu)

Thank you to the SO. NEVADA CHAPTER Meeting SPONSOR for APRIL 7, 2016!

Thank you to the ELKO CHAPTER Meeting SPONSOR for APRIL 21, 2016!



The GSN's Student Poster Night Spotlights Mackay Student Research

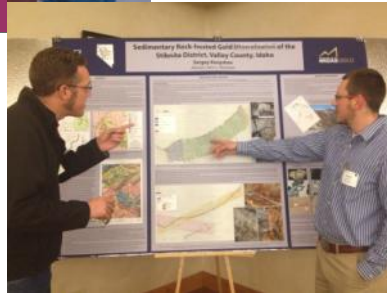
GSN was host to seventeen Mackay Student Poster Presenters at their April 15th meeting last month. The quality of research these students are doing impressed the judges and the large GSN crowd in attendance! The competition was very tough and the judges had a difficult time selecting the top three. First Place \$100 prize went to Chad Carlson, Second Place \$75 prize went to Carolina Zamora and 3rd Place \$50 prize went to Tracy Anderson. Tyler Hill's poster received special mention but he had previously received a cash award from the GSN. The other participants were:

Carli Balogh, Elizabeth Benge, Wilson Bonner, Courtney Brailo, Robin Chacko, Micah Claypoole, Elizabeth Hollingsworth, Steven Howell, Sergey Konyshv, Holly McLachlan, Justin Milliard, Patrick Quillen and Andrew Sadowski. The GSN wishes to thank ALL of the participants and especially Steven Howell and Chad Carlson who also gave the oral presentations for the evening. The GSN volunteer judges this year were David Boden, Ellie Leavitt and Steven Weiss. Thank you Judges!



Photo Credit: Holly Walton-Buchanan

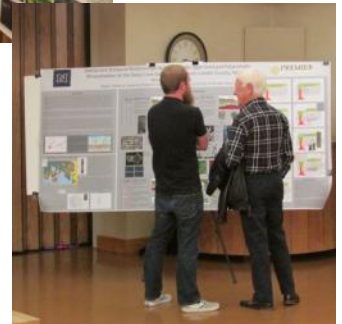
GSN President Elizabeth Zbinden & Treasurer Bob Kastelic give out the prizes for 1st, 2nd & 3rd Place in the poster competition to Chad Carlson, Carolina Zamora & Tracy Anderson..



Grad Student Sergey Konyshv explains his research to Jacob Gallagher



GSN member Bob Felder questions Tyler Hill about his research.



GSN member Tony Taylor discusses Wilson Bonner's poster.

G.S.N. FOUNDATION GIVES OUT TEN FIELD CAMP GRANTS TO STUDENTS

Foundation Treasurer, Cami Prens (far left) and **Foundation Director, D.D. LaPointe** (2nd from left) handed out Field Camp Grants to TEN deserving Mackay students at the GSN's April 15th meeting. They will all be attending UNR field camp beginning in May. The Foundation gave each student \$2,000 to help pay their tuition for field camp this summer!

Field Camp Grant Recipients included: Jade Bourdeau-Hernikl, Patrick Buonamici, Zachary Byrd, Sidnie Creamer, Nolan Dellerman, Claire Lawy, Daniel Majcher, Brian Minkin, Rachel Poper and Matthew Schneider.



Photo Credit: Holly Walton-Buchanan



GSN GOLFERS! REGISTER YOUR TEAM NOW TO PLAY IN THE TOURNAMENT!



Attention GSN Golfers!!



GSN 22nd Annual Golf Tournament is Saturday, JUNE 18, 2016

We are pleased to have American Assay Laboratories as the sponsor of the Golf Tournament!
"Shotgun Start" will be at 1:00 PM at the Washoe Golf Course, 2601 Foley Way, Reno, Nevada.

The \$50 Registration fee will include 18 holes of golf, cart, BBQ dinner, prizes, snacks, soda, water and Great Basin beer!!
All golfers please be at the course by 12:15 pm to ensure a timely start. Shotgun Start: 1:00 p.m. A fabulous BBQ Dinner will be served at the Washoe Golf Course as soon as all Golfers are done. Each GSN Member may bring one Guest for Golf. The G.S.N. will sponsor up to 4 GSN Student Members (waived for golf and dinner).

The GSN Foundation would appreciate **any items** that companies or individuals would like to donate to the raffle!

The **GSN Foundation** will sell raffle tickets for \$5.00 each or 5 for \$20.00. You can now pre-purchase as many as you like! Mulligans will be sold for \$5.00 each or 5 for \$20.00, no more than five Mulligan's per person. You can pre-purchase below!
All Mulligan and Raffle Ticket sales will go directly to the GSN Foundation!

Please provide the following information for each golfer and guest:

Name: Email: Phone:

Teamed With:

Name: <input type="text"/>	\$20-BBQ Guest Name : <input type="text"/>
Name: <input type="text"/>	\$20-BBQ Guest Name : <input type="text"/>
Name: <input type="text"/>	\$20-BBQ Guest Name : <input type="text"/>
	\$20-BBQ Guest Name : <input type="text"/>

Pre-Purchase Foundation Raffle Tickets \$5/ea or 5/\$20 (enter how many):

Pre-Purchase Foundation MULLIGANS \$5/ea or 5/\$20 (Max 5 each - enter how many):

Amount Included with this form:

\$50.00 fee per player includes golf, snacks, drinks, dinner and prizes.
\$20.00 fee to be paid for dinner & drinks only (those not golfing - BBQ Guest)

Payment Type: Check# Visa Master Card American Express Discover

Card Number: Exp. Date: 3-Digit Security Code:

Billing Address:

THANKS TO AMERICAN ASSAY LABORATORIES

For being the main sponsor of the GSN's Annual Golf Tournament - 2016

and to **MINE DEVELOPMENT ASSOCIATES** for providing GREAT BASIN BEER!



**REGISTER AND PAY BY WEDNESDAY, JUNE 8, 2016
(No refunds after Friday, June 10, 2016)**

Geological Society of Nevada,
2175 Raggio Parkway #107, Reno, NV 89512
Fax to 775/323-3599, E-mail gsn@gsnv.org



MINE DEVELOPMENT ASSOCIATES

G.S.N. Members Win Awards at Annual Mackay Banquet!

The GSN was very well represented at the Mackay Awards banquet held on April 22, 2016 in the ballroom of the Joe Crowley Student Union at UNR!

Cami and Neil Prenn were honored with the award for Outstanding Student Sponsors this year for their continuing and generous support of Mackay's mining engineering students by paying their Student Membership in the SME each year.

Opal Adams was also honored by Mackay this year with the "Special Friend to Mackay 2016" award. Opal serves on the Mackay Board and is a dedicated volunteer on many other committees. Also, Enviroscientists, Inc. the company she and Rich DeLong own, have donated THREE trucks to the Mackay program in recent years!



Honoree Cami Prenn with GSN friends, Eric Ruud, Ron L. Parratt, Alan Coyner and Eric Struhsacker. Not pictured: Neil Prenn.

Many of our GSN Student Members also garnered top honors for their academic performances this year. They are:

Paige dePolo*	Vernon E. Scheid Award 2016 (4.0 GPA) and the Outstanding Field Camp Student 2015
Sean Diggins	Outstanding Bachelors Student in Mining Engineering
Sean Warren	Outstanding Doctoral Student in Mining Engineering
Scott Sylvester	Outstanding Bachelors Student in Geophysics
Taylor Krabiel	Outstanding Bachelors Student in Hydrogeology
Kenia Clark	Outstanding Bachelors Student in Geological Engineering
Courtney Brailo	Outstanding Masters Student in Geosciences
Joel DesOrmeau	Outstanding Doctoral Student in Geosciences

Congratulations to all of the winners for your hard work, and congratulations to Opal, Cami and Neil for your recognition awards this year!



*A Note From Paige dePolo about an Ichthyosaur Project at Mount Shasta

*My name is Paige dePolo and I am graduating from the Mackay School this May. I have been collaborating on a digitization project at the main quarry at Berlin-Ichthyosaur State Park for two years now with the Smithsonian Institution. We've generated some powerful three-dimensional visualizations of the fossils and also have discovered some new bones both in and around the State Park. The team is now trying to broaden it's perspective outside of the Shoshone Mountains and is looking west. Over 100 years ago, ichthyosaur bones were found near Mount Shasta. They are large and the organism could potentially be related to *Shonisaurus popularis*, our own state fossil.

Late this summer/in early fall, we hope to go to Shasta, rediscover the previous quarries and do further exploration work.

The team has set up a project on experiment.com (a science crowd-funding website) which has been assigned the shortlink: experiment.com/triassicmarinereptile. At that link, people can read a more detailed project description, see updates from our team, or support the project as backers.

I am currently trying to raise awareness about the project and would appreciate any help you are able to provide in distributing the shortlink to interested colleagues, friends, and neighbors. If anyone has any questions about the project, how experiment.com works, or ichthyosaurs, please do not hesitate to give them my contact email: paige.depolo@nevada.unr.edu.

Thanks for your time!
Paige



SCIENCEFIT is worthy of your support!

Participation is **REQUIRED** for all incoming freshmen – and we need your generous help.

Help College Students Get A Head Start – Support **SCIENCEFIT** Today!

The University of Nevada, Reno, College of Science (COS) has a new program for freshman called **SCIENCEFIT** – a mandatory bootcamp program the week prior to the start of fall classes, required for each freshman entering the COS. This bootcamp helps to prepare students for the rigors of college study life. Statistics show that the COS benefits from greater retention of students, and students benefit from better grades!

The goal of the COS is to raise \$100,000 to **support students in need** to help cover the cost of the program as well as housing costs. COS board members have donated over 15% to date, and we are turning to you to help us reach our goal of \$100,000.

Why consider supporting **SCIENCEFIT?** UNR’s COS is a workforce recruitment center for the exploration and mining industries, and supporting students in the COS helps to attract and retain talented people to our industry. The COS is reaching out to the geology and mining communities for their support.

Please see the information and the links below if you need more information, including the link to the sponsorship website. Thank you very much, in advance, for your contribution to **SCIENCEFIT**.

COS **SCIENCEFIT** link: <http://www.unr.edu/sciencefit>

SCIENCEFIT Brochure Link: www.unr.edu/sciencefit/donor-brochure

GIVE TO **SCIENCEFIT** link: <https://supportnevada.unr.edu/sciencefit>

UNR's College of Science **includes the Mackay School**, as well as these [Departments & Programs](#):

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[Geography](#)

[Geological Sciences & Engineering](#)

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[Mining Engineering](#)

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[NV Bureau of Mines & Geology](#)

[Nevada Seismological Lab](#)

[Nevada Climate Office](#)

GSN 2016-2017 ELECTIONS

NEWLY ELECTED OFFICERS FOR THE 2016-2017 G.S.N. EXECUTIVE COMMITTEE:

PRESIDENT: Alan Coyner, Consulting Geologist
VICE PRESIDENT: Kelly Cluer, Kinross Gold USA, Inc.
SECRETARY: Steven Weiss, Consulting Geologist
TREASURER: Robert Kastelic, Consulting Geologist
MEMBERSHIP CHAIR: Molly Hunsaker, Hunsaker, Inc.
PUBLICATIONS CHAIR: David Boden, TMCC

NEWLY ELECTED BOARD OF DIRECTORS—Class A: Three Year Term – 2016 to 2019

David Caldwell, Phoenix Development Group
Greg French, Nevada Copper, Inc.

NEWLY ELECTED FOR SOUTHERN NEVADA CHAPTER OFFICERS FOR 2016-2017

President: Paul Dockweiler, Cardno, Inc.
Vice-President: Kevin Andrews, Cardno, Inc.
Treasurer: Paul Bowen, R.P. Bowen Engineering Inc.
Secretary: Joshua Bonde, UNLV

NOMINEES FOR WINNEMUCCA CHAPTER OFFICERS FOR 2016-2017

President: James Carver, Marigold Mining/Silver Standard Resources, Inc.
Vice President: Matt Fithian, Silver Standard Resources, Inc.
Secretary: Wilson Bonner, UNR Graduate Student
Treasurer: Peter O'Byrne, Newmont Mining Corp.
Membership Chair: Curtis Johnson, Newmont Mining Corp.

NOMINEES FOR ELKO CHAPTER OFFICERS FOR 2016-2017

President: Mark Travis, Barrick Gold Cortez
Vice President: Allie Phillips, Newmont Mining Corp.
Treasurer: Mark Bradley, Barrick Gold Cortez Exploration Inc. or
Amy Eisses, Klondex Gold & Silver Mining Co. or
Chelsea Raley, Barrick Gold
Secretary: Nate Wright, Newmont Mining Corp.
Membership Chair: Christine O'Neill, Klondex Gold & Silver Mining Co.

Please thank our outgoing members who have served the G.S.N. so well!

GSN President: Elizabeth Zbinden; **GSN Membership Chairman:** Bob Felder
GSN Board of Directors: Lynne Volpi, Director & Chairwoman; Jonathan Price, immediate Past-President
GSN Elko Chapter: Gabe Kassos, Treasurer
GSN Winnemucca Chapter: Chad Peters, Secretary; Erin Hart, Membership Chairwoman
GSN Southern Nevada Chapter: Josh Bonde as President (he will remain active as Secretary!)

Thank you for volunteering your valuable time to GSN!



The G.S.N. Board of Directors

GAMES!

are again personally hosting a

“GSN ALL MEMBERSHIP PICNIC”

to be held AT THE PEAVINE PAVILION

RANCHO SAN RAFAEL PARK, RENO, NEVADA

FRIDAY, JUNE 17, 2016, 4:00 p.m.—7:00 p.m.

Please join us and fellow GSN Members for an evening of FOOD, DRINK & FUN!

Traditional GSN Games including the popular Hammer Toss and Gold Pan Toss!

**Please R.S.V.P. to the GSN office by
Monday, June 13, 2016 - gsn@gsnv.org.**



ROCK TALK

This article was provided by GSN Member, David Fitch. He thought this recently released app might be of interest to a lot of GSN Members. Thanks for the contribution Dave!

Flyover Country App for geologists.

<http://fc.umn.edu/>

“Learn about the world along the path of your flight, hike, or road trip with GPS tracking. Offline geologic maps and interactive points of interest reveal the locations of fossils and georeferenced Wikipedia articles visible from your airplane window seat, vehicle, or hiking trail vista.

Flyover Country is a National Science Foundation funded offline mobile app for geoscience outreach and data discovery. The app exposes interactive geologic maps from Macrostrat.org, fossil localities from Neotomadb.org and Paleobiodb.org, core sample localities from LacCore.org, Wikipedia articles, offline base maps, and the user’s current GPS determined location, altitude, speed, and heading. The app analyzes a given flight path and caches relevant map data and points of interest (POI), and displays these data during the flight, without in flight wifi. By downloading only the data relevant to a particular flightpath, cache sizes remain reasonable, allowing for a robust experience without an internet connection.

Flyover Country's usefulness is not limited to airplanes. It is also ideal for road trips, hiking, and other outdoor activities such as field trips and geology field work.”

Funded by NSF EAGER and Geoinformatics grants EAR-1541800 and -1550913 and supported by the Univ. of MN.

Activity Update

Mike Brady, March 2016

www.activityupdate.com

NEVADA

Gold Standard Ventures Corp. announced that based on recent drill results at the Railroad Project, the Pinion Deposit aggregates 31,610,000 tonnes @ 0.62 gpt Au indicated and 61,080,000 tonnes @ 0.55 gpt Au inferred. (was 20,840,000 tonnes @ 0.63 gpt Au indicated and 55,930,000 tonnes @ 0.57 gpt Au inferred) *Press Release:* March 15

Calico Resources Corp. and Paramount Gold Nevada Corp. announced that they would merge on a 1.0 share Calico/0.07 share Paramount exchange basis. (resource @ Sleeper = 42,685,000 tonnes @ 0.37 gpt Au, 3.2 gpt Ag measured+indicated) *Press Release:* March 14

Kinross Gold Corp. announced that it recorded a \$665,200,000 write-down of its assets due to lower metal prices. *N.M.:* February 29

Standard + Poors announced that it cut the credit rating for Kinross Gold Corp. to BB+ (was BBB-) due to higher operating costs and "operating risk exposure". *N.M.:* February 29

Barrick Gold Corp. announced that it would investigate the development of an underground mine at the Goldrush Project to produce 440,000 ounces/year gold at a capital cost estimate of \$1,000,000,000. (resource = 68,672,000 tonnes @ 4.81 gpt Au measured+indicated) *N.M.:* February 29

Barrick Gold Corp.(75%) announced that it would expand underground mining operations at the Turquoise Ridge Mine at a capital cost estimate of \$300-325,000,000. (reserve = 10,800,000 tonnes @ 16.91 gpt Au proven+probable) *N.M.:* February 29

Barrick Gold Corp. announced that it would spend \$153,000,000 to expand underground mining operations at the Cortez Hills Mine. *N.M.:* February 29

Coeur Mining Inc. announced that recent drill results at the East Rochester Project include 112.84-156.15 meters @ 94.9 gpt Ag, 0.31 gpt Au (ERC14-02);

243.88-280.28 meters @ 55.6 gpt Ag, 0.65 gpt Au (ER14-031); 43.68-160.16 meters @ 68.9 gpt Ag, 0.48 gpt Au (ER14-032) and 203.84-229.32 meters @ 56.6 gpt Ag, 0.07 gpt Au (ER14-030). (reserve @ Rochester = 132,032,000 tonnes @ 0.10 gpt Au, 51.5 gpt Ag proven+probable) *Press Release:* February 29

Goldcorp Inc. announced that it closed its Reno office. *Press Release:* March 9

Nevada Sunrise Gold Corp. announced that it acquired an option to earn an 80% interest in the Atlantis Property (Li) from private interests for \$148,000 cash, 1,250,000 shares and \$1,000,000 in exploration expenditures over 3 years. *Press Release:* March 15

Walker River Resources Corp. announced that recent drill results at the Lapon Canyon Project include 7.6-25.9 meters @ # 7.62 gpt Au (LC15-03). *Press Release:* March 23

Nevada Geology Calendar 2017 Photo Contest **Deadline May 31, 2016**

WANTED: Photos for the 2017 calendar showing Nevada geology at its best!

Here are the details for the 2017 calendar contest:

www.nbmj.unr.edu/docs/2017_Calendar_photo_contest.pdf

- **Deadline for entries is May 31, 2016.**
- Photos need to be taken in Nevada. A location description and/or GPS coordinates should accompany submissions.
- High-quality, high-resolution photo files of at least 300 dpi are required.
- You may enter as many photos as you wish.
- Email submissions to Jack Hursh (jhursh@unr.edu).
- NBMG Cartographers will make the final decision on the winning photos.
- Prizes will be awarded for 1st, 2nd, and 3rd place winners.



Women's Mining Coalition Meets with Over 210 Congressional and Regulatory Offices: Mining Advocacy Group Successfully Completes 24th Annual Washington D.C Fly-In



Thirty-eight members of the Women's Mining Coalition (WMC) from 16 states traveled to Washington D.C. for the 24th annual Fly-In meetings on Capitol Hill during the week of April 18, 2016. The women work in the hardrock, coal and industrial minerals industries, and for companies that provide goods and services to mining companies. Since its inception in 1993, WMC has made annual trips to Washington, D.C. to advocate for a robust U.S. mining industry and to discuss issues of importance to the domestic mining industry with members of Congress and Congressional staff.

The 2016 WMC Fly-In efforts yielded 210 face-to-face meetings with Congressional offices and in 30 cases, meetings with elected officials themselves. WMC Fly-In participants also met with officials at the U.S. Fish and Wildlife Service and the U.S. Forest Service, and with Janice Schneider, Assistant Secretary for Land & Minerals Management at the Department of the Interior.

Nicole Preuss, WMC President, noted "In our 24th year, WMC Fly-In participants continued to advocate for a robust domestic mining industry through our meetings with Congressional Members and staff. Some participants were able to witness the passing of S.2012, Senator Murkowski's Energy Policy Modernization Act of 2015, a bill WMC was highlighting during the trip. WMC members' efforts add value to the organization; through their dedication WMC will continue to be a strong proponent for modern mining."

During this year's Fly-In, Women's Mining Coalition received word that it will receive the 2016 Prazen Living Legend of Mining Award. The award will be presented at the National Mining Hall of Fame Induction Banquet on September 24, 2016 at Caesars Palace in Las Vegas, Nevada. The Prazen Living Legend of Mining Award is given annually to an entity (foundation, museum, other non-profit entity, corporation, or individual) that has demonstrated a continuing commitment and successful efforts to educate the public on the importance of the minerals industry.

WMC continues to bring insight to the importance of modern mining, to advocate for a strong and productive domestic mining industry, and to showcase the professionalism of women who work in the mining industry. WMC's mission is to deliver the message to our legislators that a strong mining industry is vitally important to our nation, our communities, our families, and our livelihoods, and that today's regulations and modern technologies ensure responsible stewardship of our lands. WMC facilitates and provides the opportunity for our grassroots members to band together for a stronger voice with their congressional delegation and to network with other women working in the mining industry.

For more information about Women's Mining Coalition, visit www.wmc-usa.org.

Women's Mining Coalition to receive 2016 Prazen Living Legend of Mining Award

Leadville, CO. April 25, 2016: The National Mining Hall of Fame and Museum's Board of Directors is pleased to announce the 2016 Prazen Living Legend of Mining Award will be presented to the Women's Mining Coalition at the 29th Annual National Mining Hall of Fame induction banquet on September 24, 2016 in Las Vegas, NV.

Every year, the National Mining Hall of Fame & Museum (NMHF&M) selects an individual or entity that has demonstrated ongoing, innovative work educating the public, policy makers, educators, or related institutions about the importance of the mineral and mining industry to our everyday lives. The awardee is selected from a pool of nominations reviewed by the National Mining Hall of Fame's Prazen committee.

After an unprecedented election of women to Congress in 1992, geologist Kathy Benedetto saw an opportunity to go to Washington, D.C. and educate these newly elected women lawmakers about minerals exploration and mining. Kathy recruited the help of two other female geologists, Ruth Carraher and Debra Struhsacker, and together they organized what would become an annual Fly-In to meet with our nation's policy makers. Women's Mining Coalition (WMC) evolved from that first Fly-In in 1993 and its membership continues to actively educate and advocate for the mineral and mining industry.

The Fly-Ins garner the attention of our legislators and federal agencies and send the message, "A strong mining industry is vitally important to our nation, our communities, our families, and our livelihoods." WMC members emphasize that many jobs all across the country depend on mining and practically everything we use in our daily lives is the direct result of a mined products.

WMC has recruited its membership such that it has representatives from coast to coast and from all aspects of the mining industry including geologists, engineers, metallurgists, miners, environmental experts, attorneys, mining vendors and suppliers, energy producers, and other related fields. WMC members advocating for the varied mineral and mining sectors are able to provide policy makers with first-hand information about the technological advancements and environmental stewardship of today's mining industry. Particularly effective among policy makers is the fact that WMC members are not typical lobbyists; they are daughters, wives and mothers as well as highly qualified mining industry professionals.

Frank McAllister, NMHF&M Board of Directors Chairman commented, "The Women's Mining Coalition embodies the spirit of the Prazen Living Legend of Mining Award through 24 years of ongoing mining advocacy and education activities. Their membership has had a tremendous influence and impact on promoting all aspects of the mining industry and spreading the message (Continued on page 16.)

(WMC—Cont. from page 15)

“Everything begins with mining. Everything!” We are proud to recognize their efforts and bestow WMC with this prestigious award.”

More information about the Prazen Living Legend of Mining Award, this year’s inductees into the National Mining Hall of Fame, and the Annual Induction Banquet to honor them can be found at www.MiningHallofFame.org or by contacting Francine Webber, Events Manager, National Mining Hall of Fame & Museum at 719-486-1229 or by email at Francine@MiningHallofFame.org.

The National Mining Hall of Fame & Museum located in Leadville, CO is the only federally chartered mining hall of fame and museum in the United States and is the premier showcase of American mining, telling the story about mining, its people, and its importance to the American public.

OTHER UPCOMING EVENTS

1-4 MAY 2016 Canadian Institute of Mining, Metallurgy, and Petroleum Convention. Vancouver BC Canada. For more information please visit the website: <http://convention.cim.org/en/Vancouver/2016/Home.aspx>

2 MAY 2016 DREGS, Denver Regional Exploration Geologists’ Society. Social hour: 6:00 pm, Presentation: 7:00 p.m. at CSM Berthoud Hall, Room 241, Golden, CO. Speaker: Michael Sheehan. Title: “The Geology & Mineral Deposits of Turkey including the Akarka Low-Sulfidation Au-Ag Deposit & Other Recent Discoveries”. Contact James Piper for more information: geopros@q.com

3 MAY 2016 AZ Geological Society, Tucson AZ. Speaker: Peter Modreski, USGS will present "Pegmatites: Mineralogy, Gemstones, Economic Geology, and maybe not quite the same Giant-Crystal Rocks you always thought they were". Sheraton, 5151 E Grant Rd. (& Rosemont), Tucson AZ 85712. Begins @ 6 pm. For more information visit the website: <http://www.arizona Geological Soc.org/event-2176396>

5 MAY 2016 Nevada Petroleum & Geothermal Society, Reno, Nevada monthly meeting. Cocktails at 6:30 PM, Dinner at 7:00 PM, Ramada Reno Hotel; 1000 East 6th St., Reno NV 89512. Speaker: Catherine Hickson PhD, Tuya Terra Geo Corp. TOPIC: Mount St. Helens Eruption From an Extremely Close Point of View. Please make reservations by Tuesday, May 3, 2016 by using the following link: https://docs.google.com/forms/d/1dZwpq2P5ELdkfVqeRqEghiLQWUCWIHFIRqCo3jFeaQ/viewform?c=0&w=1&usp=mail_form_link

9 MAY 2016 Northern Nevada Section of SME meeting. Circus-Circus Mandalay Ballroom, Reno NV. Happy Hour @ 6 pm, Dinner at 7 pm. Speaker: Gabe Kassos, Klondex Fire Creek Mine. Title: “Geology, Mineralization, and Exploration at the Fire Creek High-Grade Gold Deposit”. Cost \$30/each-Member, \$35/each-Non Member. Please RSVP by Wed., May 4th to Brooke Miller NNevSME@gmail.com

16-18 MAY 2016 Rocky Mountain Section of the Geological Society of America Annual Meeting, University of Idaho, Moscow, Idaho. The Economic Geology Session (#11) is entitled: *Mineral Deposits and Metallogeny of Western North America*. The link to the meeting announcement is: <http://www.geosociety.org/sections/rm/2016mtg/techprog.htm>

17 JUNE 2016—G.S.N. MEMBERSHIP PICNIC hosted by the GSN’s Board of Directors. Rancho San Rafael Park, Pagoda Pavillion, Reno, NV. Please RSVP to the GSN office, gsn@gsnv.org.

18 JUNE 2016—GSN’s Annual Golf Tournament, Washoe Golf Course, Reno, Nevada. Shotgun start @ 1:00 PM. BBQ to follow. Many fabulous prizes will be raffled to benefit the GSN FOUNDATION. **Registration Form on page 9.**

25-28 SEPTEMBER 2016—SEG 2016 Conference: Tethyan Tectonics and Metallogeny, Çeşme, Turkey. Website: www.seg2016.org

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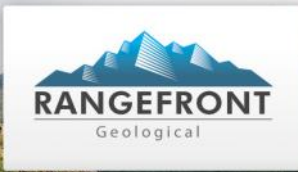


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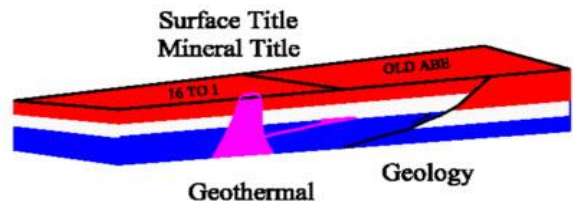
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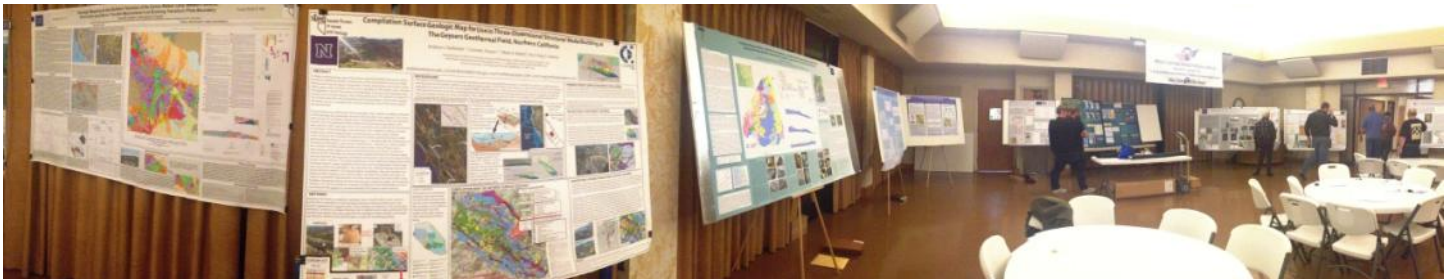
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Posters, Posters, Posters displayed at the GSN Student Poster Presentation Night on April 15, 2016 at the Reno Elks Lodge.