

# GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, PO Box 13375, Reno, NV 89507 (775) 323-3500  
Office Location: Laxalt Mineral Research Center, Room 266, UNR Hours Monday - Friday 8-3  
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## CALENDAR OF GSN EVENTS

**Jan. 14**

**Wednesday**

### WINNEMUCCA CHAPTER *(Every 2nd Wednesday of the month)*

The monthly meeting will be held at the Martin Hotel, 94 West Railroad Street. Drinks and appetizers at 6:30 PM, speaker at 7:00 PM. Sponsor for the evening will be TonaTec Exploration. Speaker for the evening will be Mark Coolbaugh. His talk will be titled "Exploration for Geothermal Resources -- Field Techniques" (see abstract on page 8). For more information contact John Marma at (775) 635-6472.

**Jan. 15**

**Thursday**

### ELKO CHAPTER *(Every 3rd Thursday of the month)*

The monthly meeting will be held at the Western Folk Life Center, 501 Railroad Street. Refreshments at 5:00 PM, Dinner at 6:00 PM, talk at 7:00 PM beginning at 6:00 PM, speaker at 7:00 PM. Sponsor and speaker for the meeting to be announced at a later date. For more information contact Moira Smith at (775) 934-2987.

**Jan. 16**

**Friday**

### GSN MEMBERSHIP MEETING *(Every 3rd Friday of the month)*

The monthly meeting will be held at the Reno Elks Lodge, 597 Kumle Lane, Reno, NV. Drinks at 6:00 PM, dinner at 7:00 PM, and talk at 8:00 PM. Sponsor for the evening will be Envirotech Drilling LLC. Speaker for the evening will be Donald M. Hudson. His talk will be titled "The Comstock District... 150 Years Later". For reservations contact Kathy Sestanovich at (775) 323-3500 or e-mail [gsn@gsnv.org](mailto:gsn@gsnv.org).

**Jan. 29**

**Thursday**

### SOUTHERN NEVADA CHAPTER *(The last Thursday of the month)*

The monthly meeting will be held at to be announced beginning at 6:45 PM. Speaker for the evening to be announced at a later date. For more information contact Josh Bonde at (702) 468-2500.

## FROM THE PRESIDENT

Marcus Johnston, *GSN President 2008-2009*

As we settle in for another winter in the high desert of Nevada, I hope you all have had time to catch your breath from the busy Holiday Season. And now, take a new deep breath as we head into another year of busy activities in the Silver State. While the downturn in many metal prices may curtail some plans, 2009 brings renewed hope as gold prices are on the rise again, with many prognosticators predicting all-time highs for the yellow metal in the near future! Several major and junior mining/exploration companies are on the trail of significant new discoveries and expansions of existing mines and resources, substantiating Nevada's role as one of the most important metallogenic provinces in the world.

The annual GSN Christmas Party showed no signs of the current, and hopefully short-lived, market malaise. The event was attended by hundreds of enthusiastic members, as Jon Price presented an excellent recap of his recent experiences in Africa.

*(Continued on page 2)*

## GSN JANUARY MEETING SPONSOR

**Envirotech Drilling LLC**  
Steve Neilsen, President Cell: (775) 340-9191  
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# News and Announcements

(Continued from page 1)

The contrast between the long-lived, yet declining production from the Witwatersrand in South Africa, and the up-and-coming operations in Ghana shed poignant light on the similarities and differences between the two regions. Mining memorabilia, spectacular mineral specimens, and fine wines were all available via raffles, silent auctions, and open auctions, and many GSN members left the meeting with new items for their libraries, collections, and future imbibing. Thanks to all who participated in the event, and to those who participated in the equally enjoyable GSN Chapter Christmas Parties. A special thanks goes to all those who donated time and/or items to the various functions.

In reverent honor to the 150<sup>th</sup> anniversary of the discovery of the Comstock Lode, we have Don Hudson presenting for the January meeting. Don and others have recently completed a new map of the geology of the Comstock area, which should spark new thoughts and interpretations of the mining history and future potential of this venerable district. Fred Breit is our latest "Face of GSN," and provides a history that tracks the progress of a modern-day mining man.

Please note: the "Student Talks" originally scheduled for the January meeting have been moved to the February meeting. We are still soliciting potential speakers, and encourage all students to consider giving a talk and/or setting up a poster to highlight your work. All proposed talks and/or posters should be sent to [gsv@gsnv.org](mailto:gsv@gsnv.org).

Stay safe, especially in our unpredictable winter conditions, and prepare accordingly.

Marcus

## UPCOMING EVENTS

**Jan. 12 SME Northern Nevada SME Dinner Meeting at 6:00 PM,** Monday at the Mandalay Room, Circus-Circus Hotel & Casino, 500 North Sierra Street, Reno. Price is \$22.00 per person. Presentation: Harry Parker, Amec, Inc. The title of his talk is "Reserve Estimation at the Antamine Mine, Peru"  
RSVP required by Thursday, January 8, 2009. Contact: Neville Rhoden (775) 746-4856 or e-mail [neville.rhoden@gmail.com](mailto:neville.rhoden@gmail.com)

**Jan. 23 Jim Faulds,** Nevada Bureau of Mines and Geology, UNR, "Structural controls of geothermal systems in western Turkey" Friday at 3:00 p.m. in Room 353 of the Laxalt Mineral Research Building on the UNR campus.

See the GSN website for all announcements:  
[www.gsnv.org](http://www.gsnv.org)

## GSN MEMBERS' PERSONAL NOTES & NEWS

John (Jack) Mottor, 62 of Reno passed away peacefully in his home, with his family beside him, after a year's battle with Leukemia.

He was born in Oakland, CA. Jack moved around in his early years, while his father finished out his naval career. After his father left the Navy, they settled in Seattle, WA, where Jack completed a degree in Geochemistry from Western Washington University. In 1969 he moved to Reno, NV to continue his work in the field of Geology. In 1970 he and Liz married and spent their early years traveling the western United States for Jack's geology jobs. Jack completed his MBA at UNR in 1980, later utilizing his degree at Sierra Pacific Power Company. After retiring from SPPC, he worked at Moana Lane Nursery.

Throughout the years, many people were touched by his intelligence, integrity, kindness, and willingness to provide support to those in any aspect of life. Those who were fortunate to have been part of Jack's life, he leaves them with many warm and humorous memories. His wish is that we all celebrate his life, and find comfort in the memories we have of him.

Jack is survived by his wife, Liz, of 38 years; his son, Chris Motter and his partner, Amy Hoffman; his brother, Jimmy Motter and wife Patty, and many other family members and friends.

At Jack's request, the family will hold a private memorial. The family requests memorial donations be sent to the Leukemia and Lymphoma Society.



**Thanks to Boart Longyear Nevada  
for sponsoring the  
Elko December meeting.**

**Thanks to ALS Chemex  
for sponsoring the  
Winnemucca December meeting.**

**Thanks to Agnico-Eagle (USA) Limited  
for hosting the December Christmas meeting  
and for donating \$1,050.00 to the GSN Foundation.**

# GSN January 16, 2009 Membership Meeting

**Date:** Friday, January 16, 2009

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

**Time:** Social-6:00, Dinner-7:00 (\$17.00), Meeting-8:00

**Directions:** Across (W) from the Reno-Sparks Convention Center (S. Virginia Street, behind the Les Schwab Tire Center)

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

**Speaker/Title:** Donald M. Hudson/"The Comstock District.....150 Years Later"

**Deadline:** Reservations by 1:00 PM Wednesday, January 14th

See abstract below:

## THE COMSTOCK DISTRICT.....150 YEARS LATER

**Donald M. Hudson**

Consulting Geologist

1540 Van Petten Street • Reno, Nevada 89503

Abstract

On January 28, 1859, James Finney ("Old Virginny") and associates located placer claims on Gold Hill at the base of Sun Peak. By March or April while working the claim down through decomposed rock, gold was discovered in quartz. The Comstock district in the southern Virginia Range of western Nevada, as the area came to be known, was the first major silver-gold discovery in the United States.

The geology of the district includes Early Mesozoic meta-igneous and meta-sedimentary rocks intruded by Late Mesozoic granitic plutons that are unconformably overlain by Oligocene to Early Miocene silicic ash-flow tuffs and Early to Middle Miocene andesites with accompanying intrusions of andesite-diorite stocks. High sulfidation alteration accompanied the latter stages of this magmatism (~15.3 Ma, Hudson et al, in press). After a brief hiatus, andesite dikes were intruded concurrently with east-side-down normal faulting and renewed andesitic volcanism. Intermediate sulfidation precious metal mineralization of the Comstock and Silver City Lodes (14.1 Ma, Hudson et al, in press) appears to have been related to further tectonic activity but not directly to dated magmatic activity. The similar intermediate sulfidation Occidental Lode formed somewhat later (~13.4 Ma, Hudson et al, in press). Pliocene to Recent reactivation of the major structures down-dropped and preserved from erosion much of the high level alteration while exposing near the surface much of the ore mineralization.

High sulfidation alteration includes quartz-alunite, quartz-pyrophyllite-diaspore, quartz-illite, and quartz-sericite assemblages in several centers of alteration. Overprinted locally on this earlier alteration are the Comstock – Silver City and Occidental hydrothermal systems. The Comstock – Silver City Lode systems consist of complex cross-cutting, multi-phased quartz, quartz-adularia, quartz-calcite veins with precious and base metal deposition occurring in many selective bodies along the lodes. The Occidental Lode contains quartz-adularia stockwork veining above and below massive calcite that hosts much of the ore. Epidote-bearing propylitic alteration forms belts along the intermediate sulfidation veins. Pyrite-rich anhydrite-quartz-illite alteration occurs in the hanging wall of the Comstock Lode, but is unclear as whether it was formed by high or intermediate sulfidation activity. Enrichment of Ag, Au, As, and Tl characterize oxidized lode mineralization, whereas the acidic alteration is characterized by enrichment of Ti, Te, As, B, F, Hg, Mo, Pb, and Sb. District wide depletion of Zn, Co, Ni, and Mn in surface exposures may result from either hypogene or supergene leaching.

Reference:

Hudson, D.M., Castor, S.B., Garside, L.J., and Henry, C.D., in press, Geology of the Virginia City Quadrangle, Washoe, Storey, Lyon, and Carson City Counties, Nevada: Nevada Bureau of Mines and Geology Map 165, scale 1:24,000.

## Nevada Bureau of Mines & Geology and Mackay

The following items are new at NBMG and Mackay:

**MI-2007 – Nevada Mineral Industry 2007**, *Web version, available free at.*

<http://www.nbmgs.unr.edu/dox/mi/07.pdf>

Please call to order on-demand paper copies of MI-2007. The paper copy is not yet available on their shopping cart.

**New - Interactive Web Maps:**

<http://www.nbmgs.unr.edu/webmaps>

**MM2- Mackay Memories 1908-2008: The First 100 Years of the Mackay School of Mines** by Holly Walton-Buchanan, Ph.D. with James V. Taranik, Ph.D., 2008, 238 pages, chapter titles: John William Mackay and the Comstock Lode; The Silver State and the Founding of the

University of Nevada; Mines Buildings, Museum and Library; Programs, Laboratories, and Centers; Students at Work and at Play; Memorable Deans, Directors, Faculty, and Staff; Alumni; Benefactors and Donors; Epilogue; Appendix (List of Mackay Students and Graduates, 1892-2007) **\$39.95**

**Click here to view book cover:**

[http://www.mackayhistory.com/2008\\_wilsonbook.html](http://www.mackayhistory.com/2008_wilsonbook.html)

Please call NBMG (775-682-8766) to order this book. It is not yet available on their shopping cart.

**Mackay Miner:**

[http://www.nbmgs.unr.edu/ads/Mackay\\_Miner/2008\\_Miner.pdf](http://www.nbmgs.unr.edu/ads/Mackay_Miner/2008_Miner.pdf)



# FACES OF GSN

*Fred Breit, Winnemucca, Nevada*

*Newmont Mining Corporation, Phoenix Mine Geology Manager*

I graduated with a B.A. in Geology from Whitman College, Walla Walla, Washington in 1986, and promptly went to work driving a truck for the Bonanza Produce Company in Reno, Nevada. In early 1989, I ran into a college Ultimate Frisbee acquaintance who was working for an exploration company in Sparks, and he suggested I get a resume together and get back into geology.

I took my first geology job in June of 1989 (with a \$4,000/yr cut in pay!) with Nevada Goldfields at the Aurora Mine, Mineral County, doing ore control. *(As a side note, Great Basin Gold just purchased the Aurora mill to process their Hollister Mine ore).* It was a small project, with about 50 employees and a 250 ton/day mill producing about 1,000 oz. Au/month, but it was a great opportunity to get exposed to mining, geologic mapping, and sampling in open-pit and underground settings. As a side note, Great Basin Gold just purchased the Aurora mill to process their Hollister mine ore.

I quit Nevada Goldfields in 1991 to attend the Mackay School of Mines and pursue an M.S. under Dr. Don Noble. I did my M.S. on the structure, geochemistry, and temporal relationships between the low-sulfidation mineralization in the Aurora district and the adjacent high-sulfidation Brawley Peaks prospect. At the top of East Brawley Peak, one of the Miocene vents from which the andesitic volcanics that host the Aurora veins erupted, is a NW-striking, dilatant jog that is still undrilled today. What are coarse quartz vein fragments containing fluid inclusions with variable compositions, some with liquid CO<sub>2</sub>, some with halite daughter minerals, and some that don't homogenize at 500°C, doing in an outcrop at 9,400' elevation?

After my coursework was completed in 1993, I took a job doing ore control at Twin Creeks for Santa Fe Pacific Gold Corp. After the Newmont merger, I was exposed to RC-chip and core logging and three-dimensional modeling. The understanding of the sedimentary rock package that hosts Twin Creeks greatly advanced when exploration geologists working out of the Newmont office in Winnemucca completed a significant re-logging campaign and reinterpreted the stratigraphy of the Comus Formation. Passing on those geologic observations were, in part, what motivated several of us working at Twin Creeks to update the geology of the deposit in the 2005 GSN symposium proceedings.

I took an opportunity to travel to Peru and work at Yanacocha from mid-2000 to mid-2001, on a rotating six-week-on, two-week-off schedule, logging core and then mapping road-cuts and drill pads in the Yanacocha and Carachugo/Chaquicocha subdistricts. In December of 2000, we completed the first mine geology compilation map of the Yanacocha subdistrict. Walking and mapping road-cuts and exposures outside of the pits on those 12,000' mountains was my favorite job yet in geology.

I returned to Twin Creeks in June of 2001, again doing ore control. In 2002, I had the opportunity to update the geologic map of the south end of Mega pit and then update the digital model based on my mapping. In 2003, I executed a drill program expanding on drilling Goldfields began earlier in section 30.

*(Continued on page 5)*



Contention Pit, Copper Basin, Fred Breit packing out a sample of turquoise hosted in Cambrian (?) Harmony Formation; note the now collectable Eklund Drilling hat!

(Continued from Page 4) **Faces of GSN, Fred Breit**

After a cumulative nine years at Twin Creeks, I had the opportunity to transfer to Newmont's Phoenix mining project in the Battle Mountain district. Since working at Phoenix, I have gained great appreciation for the necessity of screen-fire assays for coarse-gold projects! Because the project was understaffed in 2004, Newmont hired Pat Wotruba, the Chief Geologist for Battle Mountain Gold during the heyday of the mining of the Fortitude deposit, to help log core. In the mid to late 1980s, Fortitude was one of the highest-grade gold-skarn systems in the world. My thinking of the geology of Phoenix is greatly influenced by my discussions with Pat and looking over the core he had logged.

I would like to acknowledge some of the geologic influences in my life: Tony Dorff got me started in this business at Aurora, where I subsequently worked with Chris Pratt, who introduced me to Brawley Peaks; Don Noble at Mackay School of Mines; Mark Jones and Mike Ressel at Twin Creeks; Eric Saderholm and Pete Rowgoski at Yanacocha; Pat Wotruba at Phoenix; and Chris Clode, who has assisted and supported the Phoenix copper-leach project.

I have been a member of GSN since 1991, and have served as the Winnemucca Chapter President for 2003-2004, and on the Board of Directors for 2006-2009.

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# Thank you from the Foundation

The GSN Foundation would like to thank all of you who bought raffle tickets and bid on auction items. We raised over \$13,000 for the Foundation to support our education and outreach activities. We could not be successful without the generous gifts that our members donate and so many thanks go to the following individuals and corporations:

A&A Equipment - Rick Allison  
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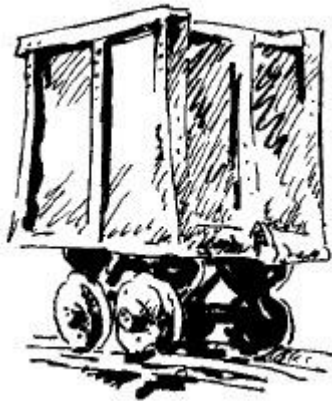
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<http://www.gsnv.org>

- ◆ Information About the Geological Society of Nevada
- ◆ GSN Board of Directors
- ◆ GSN 2008-2009 Officers
- ◆ History of the Geological Society of Nevada
- ◆ Past Officers of the Geological Society of Nevada
- ◆ GSN Honorary Members
- ◆ Speakers and Abstracts
- ◆ GSN Constitution
- ◆ GSN By-Laws
- ◆ Nevada Major Elected Officers Nevada Legislature
- ◆ MSHA Training
- ◆ And more...





# A Note of Thanks

To the Donors of the GSN Dinner Fund and Geotemps, Inc. for Sponsoring the GSN Student Memberships:

The students at the Mackay School would like to say thank you for the support that we receive. The Geological Society of Nevada and its members have been very generous to give the students funds that allows us to come and be part of your group. We have students in geology, geologic engineering, mining engineering, and hydrology. The students gain so much from being able to socialize with industry professionals and experts in their field. Some students even have received internships and career jobs from contacts gained at GSN. In Northern Nevada there is no better group to be a part of the mining and geology related industry. On behalf of the student members of this year and the next, Thank You! It is appreciated even though it is probably not said often enough and your support often goes unrecognized, even by the students themselves.



Thank You again for everything you do to support the students of the Mackay School of Mines!

Drew Wheeler  
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# GSN Winnemucca Chapter Meeting January 14, 2009

## Exploration for Geothermal Resources—Field Techniques

Mark Coolbaugh  
Great Basin Center for Geothermal Energy  
University of Nevada, Reno

The western United States is remarkably well-endowed with a large variety of world-class geothermal resources. Among these are the amagmatic geothermal systems of the Great Basin, which are unusual in that their temperatures sometimes reach and exceed 200°C without the aid of heat supplied by upper crustal magmas. Geothermal systems in the Great Basin currently produce approximately 600 MW of electricity, roughly equal to one average-sized coal-fired power plant. The potential for finding additional geothermal resources in the Great Basin is excellent because many of these systems are blind at the surface and geothermal exploration has not been nearly as thorough as gold exploration, due to economic and regulatory barriers that have operated in the past.

Three-dimensional models of fluid flow in amagmatic geothermal systems illustrate the importance of structural preparation for providing the necessary deep circulation and heating of meteoric fluids at depths of 4-6 km. Near-surface thermal groundwater outflow plumes in many geothermal systems provide a large areal footprint making it easier to recognize the existence of the geothermal systems but at the same time can make it challenging to find deeper higher-temperature reservoirs.

There are a number of surface and near-surface features that can provide clues to the existence of a geothermal system at depth. Most obviously these features include hot springs, steam vents, and mud pots, but in the absence of surface thermal phenomena, they include anomalous spring and groundwater fluid geochemistry, silica sinter and silicified sediments, calcium carbonate travertine and tufa, hydrothermal eruption craters and breccias, non-thermal gas discharge zones, sulfate and borate evaporite minerals, shallow temperature anomalies, argillic alteration, fault scarps, vegetation anomalies, and the presence of young volcanic rocks, particularly young silicic volcanic rocks.

Geothermal exploration tools include geological mapping (with an emphasis on young structures), remote sensing (for mapping hydrothermal alteration, evaporate minerals, and thermal anomalies), water geochemical sampling (especially for estimating subsurface water temperatures with geothermometers), surface and down-hole temperature logging and temperature gradient drilling, and several geophysical methods. Gravity surveys can be valuable because many geothermal systems occur within or on the margins of sediment-filled valleys. A number of electrical methods, including resistivity, time domain electromagnetics, and magnetotellurics, are employed because geothermal fluids are typically more conductive than non-thermal groundwaters and because argillic alteration characterizes the upper to central portions of many geothermal systems. Three-dimensional reflection seismic surveys have also been proven useful in geothermal exploration, even though Basin and Range fault structures have required adaptations to the methodology.

### WINNEMUCCA CHAPTER JANUARY MEETING SPONSOR



**Steve Bills**  
General Manager

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Office: 801.446.2400  
FAX: 801.446.3940

1645 North 500 West  
Mapleton, UT 84664

Email: [steve@tonatec.com](mailto:steve@tonatec.com)  
[www.tonatec.com](http://www.tonatec.com)



## Back-Pack Kids

Thanks to the generosity of many GSN members, the food drives to benefit the Food Bank of Northern Nevada's Back-Pack Kids Program were an enormous success. The food drives, which were held during the November meeting in Reno and during the December meeting in Winnemucca, collected 711 pounds of food and several hundred back packs and canvas brief cases. The Food Bank will distribute the back packs and brief cases filled with food to children who rely on school meal programs during the week and who don't have enough to eat during the weekends.

The Humboldt Sun ran an article about both the Reno and the Winnemucca GSN food drives, giving GSN some very positive public exposure.

## GSN Back-Pack Kids Food Drives Collect Over 700 Pounds of Food

The management of the Food Bank is truly appreciative of GSN's involvement with the Back-Pack Kids Program and looks forward to working with GSN in the future.

Thanks to all who contributed to the food drives which give GSN a way to help kids in need in the communities in which we live and work. GSN will hold a second round of Back-Pack Kids food drives this spring – look for details in upcoming newsletters.



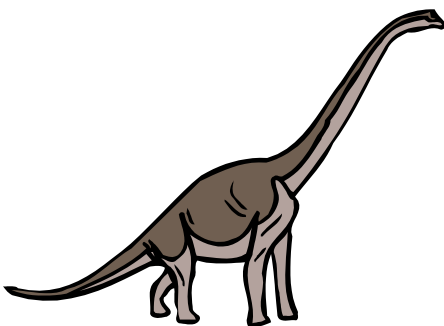


# Elko Chapter Christmas Party 2008

The Elko GSN celebrated the holidays on December 18 with a family-friendly gathering of over 90 people at the Western Folklife Center. It featured: Dinner catered by Elko favorite eatery The Flying Fish; a mineral auction organized by Al Lander; a talk on "Nevada Dinosaurs" by Josh Bonde (UNLV and GSN Southern Nevada Chapter President); and presentation of the Elko GSN 2008-2009 Student Scholarship to Janise Chavez, a third year student at Great Basin College. A good time was had by one and all! The Elko GSN wishes to thank our extremely generous sponsor, Boart Longyear Nevada, for underwriting the cost of all of the food and beverages!



Presentation of the Elko Chapter GSN 2008-2009 Scholarship to Great Basin College third year student Janise Chavez. Pictured are (left to right) Carrie Bruno, GBC Geology Instructor, Tami Chavez, Janise Chavez, Joe Chavez, Dave Tretbar, Elko GSN Treasurer and Membership Coordinator and Moira Smith, Elko GSN President.



Josh Bonde, UNLV - GSN Southern Nevada Chapter President, featured speaker at the Elko GSN Chapter 2008 Christmas Party. He spoke about "Nevada Dinosaurs" and is pictured here with a cake specially crafted for the occasion.



## ACTIVITY UPDATE

Mike Brady, October 2008

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

### NEVADA

Barrick Gold Corp. announced that it acquired an option to earn a 75% interest in the Norma-Sass Property from Coral Gold Corp. and Levon Resources Ltd. for \$4,500,000 in exploration expenditures. *M.J.*: October 24

Golden Predator Mines Inc. announced that recent drill results at the Springer Project include 85.37-86.83 meters @ 1.31% WO3 (SMC-174); 146.91-147.94 meters @ 1.28% WO3 (SMC-174); 154.83-156.29 meters @ 1.25% WO3 (SMC-174) and 139.6-141 meters @ 0.44% WO3 (SMC-180). (total resource = 3,350,000 tons @ 0.458% WO3) *M.J.*: October 31

Midway Gold Corp. announced that William Sheriff resigned from its Board of Directors due to personal reasons. *M.J.*: October 31

Atna Resources Ltd.(30%) announced that recent drill results at the Pinson Project include 840-855 feet @ 0.601 opt Au (BRFC-036); 870-896 feet @ 0.753 opt Au (BRFC-036); 165-173 feet @ 0.215 opt Au (OG3-155-3) and 97-109.5 feet @ 0.583 opt Au (OG4-155-2). (resource = 2,530,000 tons @ 0.426 opt Au measured+indicated) *Press Release*: November 2

International Royalty Corp. announced that it acquired an additional 16.84% interest in a variable 0.5-5.0% NSR and an additional 40% interest in another variable 3-5% NSR (to then hold 100%) in the Pinson Property from various parties for \$2,850,000. (resource @ Pinson = 2,530,000 tons @ 0.426 opt Au measured+indicated) *N.M.*: October 20

Mosquito Consolidated Gold Mines Ltd. announced that recent drill results at the Pine Tree Project include 137.2-215.2 meters @ 0.24% Cu, 5.6 opt Ag (PT08-19). *Press Release*: November 18

Barrick Gold Corp. announced that the Bureau of Land Management approved its environmental impact statement (EIS) for the Cortez Hills Project. (reserve = 15,620,000 tons @ 0.127 opt Au proven and 128,150,000 tons @ 0.074 opt Au probable) *M.J.*: November 14

Nevada Copper Corp. announced that recent drill results at the Pumpkin Hollow Project include 375.4-421.9 meters @ 2.5% Cu, 0.015 opt Au (NC08-28); 642.8-649.1 meters @ 2.08% Cu, 0.005 opt Au (NC08-13); 546.8-560.8 meters @ 1.78% Cu, 0.005 opt Au (NC08-14) and 628-664.2 meters @ 2.44% Cu, 0.006 opt Au (NC08-14). (resource = 41,800,000 tons @ 0.88% Cu measured) *M.J.*: November 14

AuEx Ventures Inc.(49%) announced that recent drill results at the West Pequop Project include 28-48 feet @ 0.065 opt Au (WNC-136); 475-516.5 feet @ 0.037 opt Au (WNC-137); 265.2-283.3 feet @ 0.070 opt Au (WNC-138) and 531.7-605 feet @ 0.366 opt Au (WNC-139). *Press Release*: November 10

AuEx Ventures Inc.(49%) announced that recent drill results at the Long Canyon Project include 136-178.2 feet @ 0.141 opt Au (LC107C); 131-216 feet @ 0.064 opt Au (LC111C); 132-192 feet @ 0.040 opt Au (LC114C) and 370-395 feet @ 0.088 opt Au (LC147). *Press Release*: November 18

Firstgold Corp. announced the start-up of operations at the Relief Canyon Mine. (resource = 12,930,000 tons @ 0.033 opt Au inferred) *Press Release*: November 14

Fronteer Development Group Inc. announced that recent drill results at the Northumberland Project include 40-50 feet @ 0.035 opt Au (FNU01); 335-370 feet @ 0.044 opt Au (FNU02); 70-100 feet @ 0.050 opt Au (FNU03) and 2,088-2,298 feet @ 0.080 opt Au (FNU09). (resource = 40,169,000 tons @ 0.056 opt Au, 0.23 opt Ag indicated) *Press Release*: November 20

Fronteer Development Group Inc. announced that recent drill results at the Kilgore Basin Project include 95-110 feet @ 0.012 opt Au (FKB03); 235-260 feet @ 0.019 opt Au (FKB04) and 315-325 feet @ 0.021 opt Au (FKB05). *Press Release*: November 5

Golden Phoenix Minerals Inc.(60%) announced that it closed the Ashdown Mine due to the low molybdenum price. (reserve = 117,000 tons @ 1.65% Mo proven+probable) *Press Release*: November 11

Calibre Mining Corp. announced that it terminated its interest in the Trend Property of New Dimension Resources Ltd. *Press Release*: November 10

Molycor Gold Corp. announced that recent drill results at the Davis Project include 87.42-91.65 meters @ 0.102 opt Au (DM08-01); 64.22-66.26 meters @ 0.104 opt Au (DM08-02); 26-29.96 meters @ 0.105 opt Au (DM08-03) and 114.39-115.15 meters @ 0.110 opt Au (DM08-04). *Press Release*: November 24

Kennecott Rawhide Mining Co. announced that it purchased an additional 49% interest (to hold 100%) in the Rawhide Property from Pacific Rim Mining Corp. for \$3,100,000. *Press Release*: October 29

Rye Patch Gold Corp. announced that recent drill results at the Jessup Project include 53.3-56.4 meters @ 0.029 opt Au (JR08-031); 47.2-57.8 meters @ 0.012 opt Au (JR08-032); 27.4-86.9 meters @ 0.029 opt Au (JR08-036) and 12.2-25.9 meters @ 0.038 opt Au (JR08-040). (resource = 5,423,000 tons @ 0.022 opt Au measured) *Press Release*: November 12

Rye Patch Gold Corp. announced that recent drill results at the Wilco Project include 27.4-39.6 meters @ 0.016 opt Au (WR-012); 70.1-74.7 meters @ 0.012 opt Au (WR-083) and 83.8-91.4 meters @ 0.011 opt Au (WR-087). (resource = 8,091,000 tons @ 0.018 opt Au measured) *Press Release*: November 25

Staccato Gold Resources Ltd. announced that recent drill results at the South Eureka Project include 340-365 feet @ 0.027 opt Au (BHSE-02); 385-475 feet @ 0.027 opt Au (BHSE-05); 439-492 feet @ 0.011 opt Au (BHSE-07C) and 115-125 feet @ 0.011 opt Au (BHSE-010). (resource = 4,753,000 tons @ 0.020 opt Au measured) *Press Release*: November 20

Western Uranium Corp. announced that recent drill results at the Kings Valley Project include 103.7-105.2 meters @ 0.365 opt Au (ALB04) and 154-195.1 meters @ 0.019 opt Au (ALB04). *Press Release*: October 29



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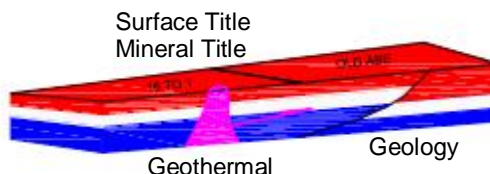
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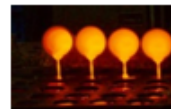
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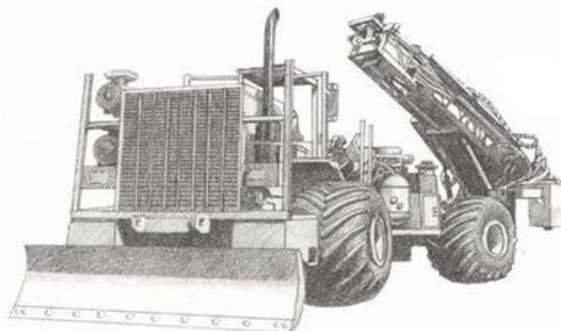


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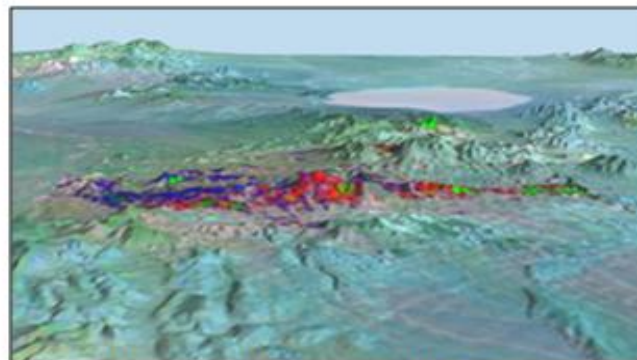


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