# **GSN NEWSLETTER**

January 2000, Vol. 14, No. 1



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CALENDAR OF EVENTS

GSN ELKO CHAPTER: At the High Desert Inn, Elko, NV; Jan 19 Speaker - Ian Hutchison, AngloGold North America Inc.,

Origin of the Witwatersrand Basin Gold Deposit, South Africa. Social-6:30, talk-7:00. Reservations not required. Call Jeff Pontius at 775/778-9280 for information.

Jan 20 GSN SOUTHERN NEVADA CHAPTER; Lily Fong Geoscience Bldg, UNLV; John F. Stamm, Western State University, Gunnison, CO, Stream Restoration and the Importance of Bankfull Discharge. Call K. Goebel, 702/263-7600, or Jean Cline,

702/895-1091 for information.

Jan 21 GSN MEMBERSHIP MEETING: At Elks Club, Reno, NV; Speaker - Ryan K.

McDermott, Kinross Gold USA, Inc., Geology and Mineralogy of the Kubaka Mine,

Kolyma Range, Russian Far East. Meeting details, page 3.

Jan 21 SYMPOSIUM 2000: Organizational meeting at 12:00 noon - Watts Room,

University Inn, UNR. Cheri Reimann, 775/358-4336.

May 15-18 GSN Symposium, Geology and Ore Deposits 2000: The Great Basin and Beyond.

Registration materials now available on our web site.

Check out the GSN web site:

www.gsnv.org

GSN Newsletter is published monthly except June and July Geological Society of Nevada, PO Box 12021, Reno, NV 89510-2021 USA, 775/323-3500

## **GSN SYMPOSIUM FINANCIAL SUPPORTERS (to date)**

#### **PATRONS**

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#### **FRIENDS**

Pittston Nevada Gold Co. David R. Shaddrick/Rubicon Resources Inc. ACTLABS/Skyline Teck Resources Inc.

#### REGISTRATION

Registration materials now available on our web site for the Geological Society of Nevada Symposium, Geology and Ore Deposits 2000: The Great Basin and Beyond, May 15-18, 2000 in Reno, NV, USA, www.gsnv.org

## News and Announcements



## POST MORTEM ANALYSIS OF THE GSN 2000 SYMPOSIUM CALL FOR PAPERS

J. K. Cluer, Symposium 2000 Technical Programs

The Call for Papers which forms the Technical Program for the GSN 2000 Symposium is now, thankfully, over. We are glad to report that 162 submissions were received; the papers were about evenly divided among the eight theme sessions. Sixty-five of these were assigned oral presentation format and 95 will be poster presentations. Approximately 60 of the submissions were accompanied by manuscripts to be printed in the Symposium Proceedings Volumes. All abstracts have been edited and returned to authors for revision. Manuscripts are currently in the review/revise stage — on track to meet the October 2000 publication target date.

The GSN's own oversight subcommittee for the Technical Program Committee, operating under the General Symposium Committee (GSC), a wholly owned subsidiary of the Executive Committee (a band of renegades loosely tethered to the ethereal, unknowable, "Mother Ship"), has authorized an in-depth analysis of various committee findings pertaining to the abstract submittal process. This investigation was demanded because so many abstracts were received after the published deadline.

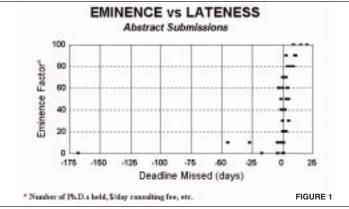
Therefore, factual data have been collected by clandestinely intercepting e-mail messages and interviewing totally mystified and deranged GSN members. Additionally, a number of taped telephone conversations were played backwards in search of tell-tale phrases such as "!Retsem esgnile urgada hevi", "?Skee wero mowt", "!Tino e effoc del lipsi", etc.; the frequency of these and other incriminating utterances, along with data from old invoices, resumes and college catalogs, were plotted to determine the relative scientific/social standing (Eminence Factor, fig. 1) of the individual under surveillance.

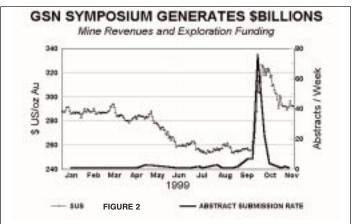
The graph in figure 1 serves to summarize these data. In general terms however, even though a large number of abstracts were received after the submittal deadline, history will show that those late abstracts represent the most profound contributions to the geological sciences this century, and that they were authored by some of the most eminent people currently in practice.

Some reviewers and GSN staff claimed to have experienced eminence boosts (and spells of dizziness) just by handling these late abstracts. The Symposium surely would have floundered in mediocrity without them.

On a brighter note, but somewhat inconsistent with the findings of figure 1, figure 2 clearly shows that the world markets responded very favorably to the peak of abstract submissions and allowed the gold price to jump upward nearly \$70/oz, but curiously the markets showed no regard for the late, but eminently-authored, submissions. This graph suggests that to keep the gold price above \$300/oz GSN should consider holding periodic Abstract Drives. And, based also on the analysis of figure 1, in order to save money on postage (the fundamental concern of the GSC), the Abstract Drives should target only the less eminent (0 to 50) geoscience community. However, more research is clearly needed to discover if, for example, a similar effect was seen in other commodity prices, or if truly high eminence will be required to achieve similar price gains in other metals.

Your Humble Servant (sans eminence), P. Mortem





## THE PRICE IS RIGHT

GSN Member, **Jonathan Price**, State Geologist and Director of the Nevada Bureau of Mines and Geology at UNR, is the 1999 recipient of the American Institute of Professional Geologists' John T. Galey Sr. Memorial Public Service Award. Price was honored for his support of the development of natural resources for the nation's economy and service to the AIPG at the national, state and local levels. The Association of American State Geologists recently elected Price as president. His term will run through June 30, 2001.

## GSN January 21, 2000 Membership Meeting

Date: Friday, January 21, 2000 Time:

Social-6:00, Dinner-7:00, Meeting-8:00

Cost: \$17.00 (dinner)

Reservations: phn 775/323-3500; fax 323-3599

or e-mail: gsn@mines.unr.edu

Reserve by noon Wednesday, January 19 Deadline:

Location: Elks Lodge, 597 Kumle Lane, Reno, Nevada Directions: Across (W) from the Reno-Sparks Convention

Center (S Virginia St), located just behind the

Les Schwab Tire Center

Speakers/topic: Ryan K. McDermott, Kinross Gold USA, Inc.

See abstract below.

## Bar Hosted by GEOTEMPS, Inc.

## GEOLOGY AND MINERALOGY OF THE KUBAKA MINE, KOLYMA RANGE, RUSSIAN FAR EAST

Ryan K. McDermott, Kinross Gold USA, Inc.

The Kubaka Mine is located in the Northern Evensk District of the Magadan Oblast, Russian Far East, approximately 700 kilometers northeast of the city of Magadan, and 300 kilometers south of the Arctic Circle.

A proven and probable open pitable ore reserve of 3.12 million tonnes containing 1.25 million ounces Au and 1.57 million ounces Ag is hosted by a steeply dipping, northwest trending epithermal quartz-adularia vein system occurring in a package of Devonian aged felsic to intermediate extrusive volcanics and volcaniclastic sediments. Principal structural control is provided by steeply dipping en echelon normal faults. Measured fault offsets are typically less than 5 meters.

Gold and silver mineralization occurs in veins and vein swarms as disseminated electrum in association with bandedquartz, adularia, calcite, barite, and fluorite. The deposit contains less than 0.1% sulfides.

#### **NEW COURSE AT UNR**

#### **Remote Sensing for Mineral** Exploration III - Imaging Radar

James V. Taranik, Instructor

Course Description: Radar Fundamentals are presented including: System parameters, scene parameters and fundamental synthetic aperture radar (SAR) principles. Description of remote sensing radar systems and data processors. Interaction with terrain including, geometric considerations, terrain reflectivity, factors in reflectivity, and dielectric properties. Synthetic aperture radar systems are discussed including spatial geometry and system parameters, system gain relationships, image quality and calibration. SAR processing is reviewed. Geoscience perspectives on radar fundamentals are reviewed, radargrammetry, polarimetry in radar remote sensing, and imaging radar interferometry are reviewed. Applications to hydrology, soils and geology are reviewed.

The course will utilize data from, NASA Aircraft Radar (DC-8), Seasat, Shuttle Imaging Radar Systems, RadarSat and the European Earth Resources Satellite radar system (ERS-1 and ERS-2). The NASA Shuttle Radar Topographic Mapping mission is expected to fly during the course and students will learn about that system and the utility of its data. Students will use ENVI and ER-Mapper to process and analyze radar aircraft and satellite data.

Contact jtaranik@mines.unr.edu, 775/784-4258.

## MINING LIFE-CYCLE CENTER

The Mining Life-Cycle Center (MLC) at Mackay School of Mines, UNR was opened this Fall. Dirk J.A. van Zyl was named as its Director. The MLC will focus on Mining activities occurring in the following stages: exploration, development, operations, closure and post-closure. The MLC will provide a focal point for the resolution of environmental concerns associated with the whole mining life cycle.

International cooperation with industry, research, governmental and environmental organizations will be actively pursued to identify the issues and develop solutions for environmental mining impacts in arid and semi-arid regions. It is expected that the profile of the Mackay School of Mines will be increased as a premier National and International Mining School as a result of this focus.

For more information about the MLC – contact Dirk van Zyle 775/784-7039 or vanzyl@mines.unr.edu

#### **GSN Newsletter Monthly Advertising Rates**

Business card size  $(3^{1/2} \times 2^{\prime\prime})$ Quarter page  $(3^{1/2} \times 4^{3/4})$ 150.00 Half page  $(4^{3}/4 \times 7^{1}/2'')$ 300.00 Classified ads (per line, 8-10 words) 10.00 (up to business card size)

For an advertising form, call the GSN office at 775/323-3500, fax 323-3599, e-mail gsn@mines.unr.edu

#### **MISCELLANEOUS**

- ▶ The GSN Membership Directory is expected to be finished and in the mail by the end of January. Please take a minute to look through the GOLD pages as well as the front and back covers and remember our advertisers when you need products and services!
- ▶ The GSN office had the best decorated door on the UNR Campus, thanks to numerous Christmas cards received from so many of our thoughtful friends.
- ▶ Thanks to Bob Hatch, Tom Callicrate, and Dave Shaddrick for their booth-sitting services at NWMC. Their salesmanship techniques would give Mary Kay a run for the money.
- ▶ Cheers for the Three Amigos, of Nevada Pacific Gold, who were first to join the "PATRONS" level, as Financial Supporters of the GSN Symposium.

#### **DINNER AND MORE**

The cheery tone of the December meeting was set by the interesting assortment of costumes, hats, and holiday apparel, as bottles of Mongolian Vodka (provided by **Ken Cunningham**) circulated the room. **Kelly Cluer** gave the dinner guests a most entertaining presentation while visions of singing Irish lasses (Sassy Lassies) still danced in our heads.

Thanks to the generosity of Environmental Management Associates (**Rich DeLong**), CGS, Inc. (**Troy Haggard**), NBMG (**Jonathan Price**), Bondar-Clegg, (**Eric Ruud**), and **Chris Henry**, who donated door prizes for the GSN Christmas Dinner meeting.

#### **HOW OLD ARE WE NOW?**

After numerous conversations regarding the "aging" of the GSN membership, we put a category on the membership application for birth date. This results of this survey were intended to used be for polling purposes only and those who provided this information need not worry about receiving lavish birthday presents from the GSN. The results are as follows:

Ages	Percentage	Month Born	Percentage
20's	10%	Jan	9%
30's	14%	Feb	6%
40's	29%	March	7%
50's	27%	April	9%
60's	14%	May	12%
70's	5%	June	6%
80's & up	1%	July	10%
		Aug	9%
3 members, it appears,		Sep	9%
were born in 1999		Oct	4%
		Nov	6%
Two members born in 1916 &		Dec	13%
1919 have	e Nov & Dec birthda	ys	

This presentation of ages and birth dates is being provided for your amusement, but unfortunately is inconclusive, since less than a majority of the membership actually responded. None of the Honorary Members are expected to complete a membership renewal form, so we have limited information from that age group. Furthermore, the college students were the most cooperative about providing their birth dates, so the results may be high for that age group. This writer would speculate that if you add 2-3 percentage points to the 70 and 80 age group and deduct the same from the group in their 20's – we probably have a reasonably accurate profile.

# Happy New Year Everyone!

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#### LIFE ETCHED IN STONE

Frank Gregory, GSAF

The Geological Society of South Africa is enormously proud to announce the publication of an outstanding new title, Life Etched in Stone - Fossils of South Africa. The book has been written by Dr. Colin MacRae, designed by Robin Frandsen and Bruce Hill, printed by Tien Wah Press in Singapore and project managed by The Mineral Corp.

The Geological Society of South Africa was enormously privileged to be invited to attend the Geological Society of America's AGM in Denver last month. It is on the strength of this close liaison between our organizations that I would invite you to visit our webpage (www.fossil.co.za) for further information on the book.

Dear Geological Society;
Thank you for the money so
we could go on the
field trippo I learned
weathering. Which is where
wind and water take
layers of rocks of rocks off
I used to not like
learning adout rocks
but now I like
them. The main
rocks we saw were
Sandstone and Linestone.

We had a great time.

Sincerely,

Tyler Bell

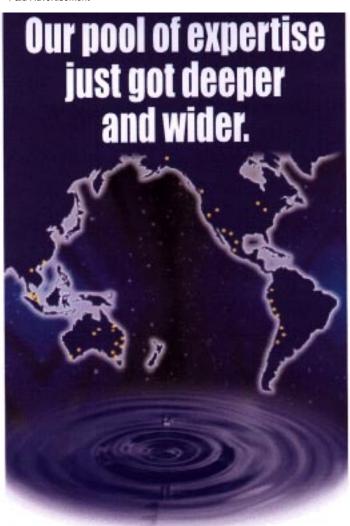
P. S We also, Sow

petroglyphs. They looked

like this.

I

Submitted by Mrs. McGaughey, 1st and 2nd Grade, Crestwood Elementary, Las Vegas Paid Advertisement



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## THE GREAT BASIN EXPERIENCE\*

(\*missed us last month, didn't you?)

## By Ol' Three Toe and Club Tail

(not your ordinary fossils)

e-mail address - dinos28297@aol.com

#### Club Tail:

Wake up old plant breath! Are exploration activities starting to come alive in the Great Basin?

#### Ol' Three Toe:

Maybe so. Last week I actually saw another geologist eating dinner in Battle Mountain; bet you didn't even know there was a place to eat in BM.

#### Club Tail:

Rumor has it that Placer Dome has made a discovery just south of the Cortez Mine. My

source says there is slightly more than one million ounces of gold, with an average grade of about 0.03 opt Au.



Your sources are a Trilobite that has been dead longer than you.

#### Club Tail:

Have you seen all of the drill rigs working just off the road to Copper Canyon?

#### Ol' Three Toe:

Maybe someone is finally following our advice and are drilling under all of the roads in Nevada. Will I-80 be next?

#### Club Tail:

I understand that at least one of the rigs was contracted to Newmont. Do you suppose that they have found something that is not on the "Trend"?

#### Ol' Three Toe:

What about that rig drilling at the Standard Mine? Since this is the second round of drilling do you think that Apollo Gold has found something?

#### Club Tail:

I hope the contractor got paid up front. (The editor slashed the rest of this entry, in an effort to deflect the nasty calls it was bound to generate!)

#### Club Tail:

Speaking of no money, maybe someone should pick up Olinghouse now that Alta Gold has bit the big one.

That place has some wonderful exploration potential and you might even be able to make a mine out of it with some reserves.

#### Ol' Three Toe:

Haven't you learned your lesson? We are changed reptiles; we do not pick on companies any more.

#### Club Tail:

Yes, you are right. We sure hope that Alta Gold makes it out of bankruptcy.

#### Ol' Three Toe:

Quit laughing! Besides, I hear that everyone is going into borate exploration now. Maybe there will be a "Borate Rush" now that gold is at the bottom (we hope).

#### Club Tail:

Did you hear that Latitude is finding near surface low-grade gold at Pan?

#### Ol' Three Toe:

Fat lot of good that will do at these prices! Better to go to Peru, like Pacific Rim at Luicho and find a really big lowgrade deposit instead of a small low-grade deposit.

#### Club Tail:

Could you believe your eyes when the AngloGold ad for geologists appeared in the Reno paper?

#### Ol' Three Toe:

They probably got more letters from geologist than Christmas catalogs. What does Joe Cantor know to cause him to retire? Stay tuned, since we are the only ones in the know and we will tell all.







#### **UP-COMING EVENTS**

**Jan 10** UGS Dinner Meeting at Salt Lake City, UT. S Robert Bereskin, Cretaceous Shales of the Western Interior Seaway: An Overlooked & Possibly Enormous Hydrocarbon Resource of the Rocky Mountains—Methodology Derived from the Lewis Shale of NW NM. Lunch-noon, talk-12:30. Res 801/537-3300

Jan 10 DREGS Meeting at Golden, CO. dregs@dregs.org

Jan 11 NWGS, AEG Meeting at Seattle, WA. Mavis D Kent, Oregon Dept of Environmental Quality, Environmental Cleanup: Basic Engineering Geology is Still Important. Social-5:30, buffet-6:30, speaker-7:30. D Charnley, charnley@ctr.net

Jan 11 AEG SW Section, LV Subsection Meeting at Las Vegas, NV. Rick Orndorff, UNLV, Spatially Distributed Hydrologic Model for the Las Vegas Valley. Social-5:30, dinner-6:30, talk-7:30. Res D Blatchford, 702/251-5449

**Jan 19 GSN Elko Chapter Meeting** at Elko, NV. Ian Hutchison, AngloGold North America Inc., Origin of the Witwatersrand Basin Gold Deposit, South Africa. J Pontius, 775/778-9280

Jan 20 GSN SNC Meeting at Las Vegas, NV. John F Stamm, Western State Univ, Gunnison, CO, Stream Restoration & the Importance of Bankfull Discharge. K Goebel, 702/263-7600, or J Cline, 702/895-1091

Jan 20-23 GSA Int'l Conf on Environmental Modeling & Simulation at San Diego, CA. Jin-Yi Yu, 310/206-3743, yu@atmos.ucla.edu

Jan 21 GSN Membership Meeting at Reno, NV. Ryan K McDermott, Kinross Gold USA, Inc., Geology & Mineralogy of the Kubaka Mine, Kolyma Range, Russian Far East. 775/323-3500, gsn@mines.unr.edu

**Jan 21 GSN Symposium 2000 Meeting** at Reno, NV. University Inn, UNR. C Reimann, 775/358-4336

**Jan 22-26** ExpoMasters, Inc. China & East Asia 2000 Mineral & Energy Resources Symposium at Denver, CO. M Cramer, 303/771-2000, mcramer@expomasters.com

**Jan 25-28** B.C. and Yukon Chamber of Mines 17th Annual Cordilleran Geology and Exploration Roundup at Vancouver, British Columbia. 604/681-5328, www.bc-mining-house.com

Feb 1 AGS Dinner Meeting at Tucson, AZ. Clark Isachsen, Pinal Schist. Social-6:00, dinner-7:00, talk-8:00. Res 520/770-3500

**Feb 13-16** Int'l Soc of Explosives Engineers 26th Annual Conf at Anaheim, CA. 440/349-4004, www.isee.org

**Feb 20-24** Environmental & Eng Geophysical Soc Annual Meeting, SAGEEP, at Arlington, VA. 303/771-2000, mcramer@expomasters.com

**Feb 23-24** OK Geological Survey Petroleum Systems of Sedimentary Basins in the Southern Midcontinent at Norman, OK. 405/325-3031 or 800/330-3996

Feb 28-Mar 1 SEG-SME Annual Meeting, New Frontiers in Mining at Salt Lake City, UT. 800/763-3132

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Mar 5-10 PDAC Mining Millennium 2000 at Toronto, Ontario, Canada. 416/362-1969

Mar 7 AGS Dinner Meeting at Tucson, AZ. John Lacy, Mining Law. Social-6:00, dinner-7:00, talk-8:00. Res 520/770-3500

Mar 16-17 16th Annual Mining & Land Resource Inst at Reno, NV. 817/847-7700

Mar 16-18 Nat'l Mining Assn Annual Meeting at Naples, FL. J Wilson, 202/463-2651

Apr 4-6 Workshop on the Characterization, Modeling, Remediation, & Monitoring of Mining Pit Lakes at Reno, NV. 703/645-6945 x5946 Paid Advertisement

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**Apr 27-29** GSA Cordilleran Section 96th Annual Meeting at Vancouver, B.C. Abstracts-303/447-2020, x161, ncarlson@geosociety.org. Technical program-B Struik, 604/666-6413, bstruik@gsc.nrcan.gc.ca, D. Allen, 604/291-3967, dallen@sfu.ca, or D Thorkelson, 604/291-5390, dthorkel@sfu.ca

May 8-12 CMA CA Mining 2000: The Odyssey Continues at Palm Springs, CA. 916/447-1977



**May 15-18** Geology & Ore Deposits 2000 - The Great Basin & Beyond, A GSN Symposium at Reno/ Sparks, NV. 775/323-3500, gsnsymp@unr.edu, www.gsnv.org

July 11-13 N American Quarry Show at Jamesville, NY. 518/673-3237, quarry@telenet.net

**July 31-Aug 3** Pacific Rocks 2000, the Fourth North American Rock Mechanics Symp at Seattle, WA. M Cramer, 303/771-2000, mcramer@expomasters.com

**Aug** 31st Int'l Geol Congress, Brazil 2000 at Rio De Janeiro, Brazil. 55 21 295 5847, 31igc@31igc.org.br

**Dec 3-7** NWMA Annual Meeting & Expo at Spokane, WA. H Hoeft, 509/624-1158, www.nwma.org

## In Memoriam

Bree Megan Shaddrick, daughter of Sandra Shaddrick and Dave Shaddrick passed away from injuries sustained in an accident in Truckee, California December 4, 1999.

Those wishing to make donations to a Journalism Scholarship Fund, being established in her name, may send contributions to "Bree M. Shaddrick - Memorial Fund", c/o R M Hatch, 80 Bitterbrush Rd, Reno, NV 89523-9679

The GSN has made a donation to the fund.

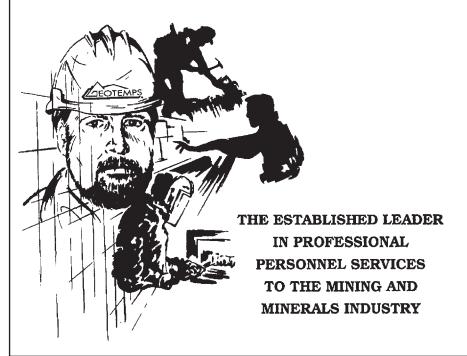
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