# **GSN NEWSLETTER**

October 2000, Vol. 14, No. 8

PRESIDENT Ken Cunningham

Nevada North Resources USA Inc. kdc-miner@juno.com

VICE PRESIDENT Dave Shaddrick

Rubicon Resources Inc. DShaddrick@aol.com

**SECRETARY** 

Clay E. Postlethwaite
Pittston Nevada Gold Co.
cpost@pngc-usa.com

TREASURER Rich DeLong

Environmental & Resource Mgmt., Inc. rfdelong@ermus.com

MEMBERSHIP CHAIR Greg McN. French

Consulting Geologist GMcNFrench@aol.com

PUBLICATION CHAIR Camille Prenn

Mine Development Associates cami@mda.com

OFFICE MANAGER Laura Ruud gsn@mines.unr.edu CALENDAR OF EVENTS

Oct 4 GSN WINNEMUCCA CHAPTER MEETING: Red Lion Inn, 6:30 pm, Humboldt Room, Winnemucca, NV. Speaker - Marcus Johnston, Newmont Mining Corp., The Cove-McCoy Continuum: Related Eocene Carlin-style, base metal, and gold skarn ores, and their implications for Carlin-type deposits. Bruce Braginton, 775/625-5606 for information.

Oct 7 GSN ANNUAL PICNIC: Bowers Mansion State Park. Details on page 2.

Oct 10 GSN SOUTHERN NEVADA CHAPTER MEETING: At Gold Coast, Las Vegas, Nevada; Joint meeting with AEG. Speaker – Jerry Szymanski, Nevada. Attorney General's Office, and Dr. Jim Paces, USGS/DOE Yucca Mountain Forum, Is or isn't Yucca Mountain going to be in hot water? (Origin of the shallow mineralization). Social-5:30, dinner-6:30, talk-7:30. \$19-GSN or AEG, \$21-non-members. K.Goebel, 702/263-7600 for information.

Oct 19 GSN ELKO CHAPTER MEETING: At the High Desert Inn, Elko, NV. Speaker - Diane Wolfgram, Stillwater Mine in Montana. Social-6:30, talk-7:30. Reservations not required. Keith Bettles. 775/778-8149 for information.

Oct 20 GSN MEMBERSHIP MEETING: Elks Club, Reno, Nevada. Speaker - Moira Smith, Teck Corp., Gold Mineralization on the Pogo Claims, East-Central Alaska. Social-6:00, dinner-7:00 (\$17), talk-8:00. Details on page 3.

Nov 1 GSN WINNEMUCCA CHAPTER MEETING: Red Lion Inn, 6:30 pm, Humboldt Room, Winnemucca, NV. Speaker - Tommy Thompson, title to be announced. Bruce Braginton, 775/625-5606 for information.

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

#### PRESIDENT'S MESSAGE

Ken Cunningham, GSN President 2000-2001

Those of you who have called or dropped by the GSN office last month have probably noticed a change. GSN's Office Manager, Donna Bloom, resigned her position effective September 14. Donna was also the Manager of the Nevada Water Resources Association and found that the workload of the two organizations was more than her schedule could accommodate. We wish her good luck. Fortunately for GSN's members, its President and the Executive Committee, we were able to persuade Laura Ruud to accept the position of Office Manager. Thank you Laura. Laura will also continue to serve as GSN's Bookkeeper.

I want to thank all of the individuals and companies who helped sponsor the recent Fall Field Trip. Dave did a great job in organizing a venue that is of interest to all and GSN is fortunate to have sponsors who helped defray costs and made this trip affordable for everyone.

Finally, don't forget to sign-up for the October 20<sup>th</sup> GSN Meeting and Dinner. Moira Smith from Teck Corporation is giving a talk titled "Gold Mineralization on the Pogo Claims, East-Central Alaska". This is a great discovery and a meeting you do not want to miss.

#### MEMBERSHIP RENEWAL

Gregory McN. French, GSN Membership Chairman

This is a friendly reminder that it's time to renew your GSN membership. The renewal form can be found in the September Newsletter or use the inserted envelope. Send in your dues now! Avoid interruptions in your newsletter mailing. We will be starting work on the new 2000-2001 Membership Directory in November and do not want to miss your listing. This year's renewal form includes an opt-in choice for the new membership list web page and the ability to indicate if you or your company is available for consulting.

October Sponsor -



MARTY DENNIS Vice President

P.O. BOX 1049 RENO, NV 89504 (775)324-7730 OFFICE

FAX (775)322-6644 HOME (775) 851-7767 CELL (775)742-7767

# News and Announcements



## **GSN ANNUAL PICNIC**

**Don't forget!** The GSN's 12<sup>th</sup> Annual Family Picnic will be Saturday, October 7, 2000, at Bowers Mansion Park in Washoe Valley, in the North Picnic area. The picnic will start at 12:00 noon and will go until 5:00 pm. Bring the whole family for a day of fun and games! What a great opportunity to have fun with your colleagues and enjoy the delectable barbeque and **Great Basin** beer! Cost is \$5.00 per person or \$10.00 per family.

GSN will provide the meat, snacks and beverages. Each family is asked to bring a salad or dessert to share in the potluck style gathering.

Contact Laura Ruud at the GSN office at 775/323-3500 if you plan to attend. Hope to see you there!

## **EDUCATION FIELD TRIP GRANTS**

It is once again time for applications to be in for Earth Science Field Trip Grants available to all teachers in the state. GSN Foundation will donate bus transportation funds for any K-12 school field trip that has an Earth Science related lesson. The grant application forms are due in to the GSN office by November 1st and can be downloaded on the GSN website: www.gsnv.org. Forms can also be obtained by calling Laura Ruud at the GSN office-323-3500. Please spread the word to any teachers you may come in contact with.

# **EARTH SCIENCE WEEK ACTIVITIES**

D.D. LaPointe, GSN Education Co-Chair

In recognition of the significant contributions that the Earth sciences make to society and to the economy and environment of Nevada and the country, Governor Kenny Guinn and the U.S. Congress have proclaimed the second full week of October (Oct 7-14) "Earth Science Week".

You are invited to participate in two free public field trips offered by the Nevada Bureau of Mines and Geology and other members of the Earth science community. Bring your own insured, high-clearance vehicle, picnic lunch, water,

Paid Advertisement

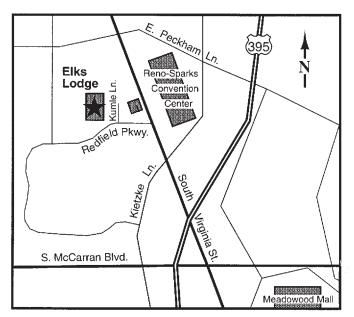
# J

P.O. Box 370526 Denver, Colorado 80237 303-337-4559 telephone/fax

#### JOSEPH R. ANZMAN

Exploration Geophysicist

- consulting
- interpretation
- · project management
- geophysical surveys
- domestic & foreign



Location of meetings: GSN's monthly membership meetings are held at the Reno Elks Lodge on Redfield Parkway (at the corner of Kumle Ln), located just west of the Reno-Sparks Convention Center (Virginia St), and directly behind the Les Schwab Tire Center.

sturdy shoes, and a healthy curiosity to learn more about geology in northern Nevada. The more geologists we have on each trip, the smaller the group discussions can be.

#### Field Trip 1: Fossils and Lakes in Northern Nevada

Saturday, October 7th. A guided field trip to a Miocene fossil leaf locality near Pyramid Lake, tufa formations at Ypramid Lake, and sulfide mineralization in the Pyramid mining district will be led by local paleontologists (~100 miles round trip). The trip will end with a visit to Pyramid Lake Paiute Museum at the Sutcliffe Marina. Participants should meet at 8:45 a.m. at the Evans Street parking lot across from the Fleischmann Agriculture Building on the UNR campus. Bring your own insured, high-clearance vehicle, picnic lunch, water, and sturdy shoes.

# Field Trip 2: Geology along the Loneliest Highway in America

Saturday, October 14. Join us for a trip along part of Highway 50, guided by local geologists (~170 miles round trip). We will stop at several localities between Carson City and Sand Mountain to discuss geology and collect rocks, including a gypsum mine, an ancient volcano, and a Nevada Wonderstone locality. Participants should meet at 8:45 a.m. at the parking lot of Western Nevada Community College at the end of West College Parkway in Carson City. Bring your own insured, high-clearance vehicle, picnic lunch, water, and sturdy shoes.

For more information on either of these field trips, or to sign up to participate, please call Terri at NBMG, 784-6691, ext 126 or D.D. at ext 134.

# GSN October 20, 2000 Membership Meeting

Date: Friday, October 20, 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

Deadline: Reserve by noon Wednesday, October 18
Location: Elks Lodge, 597 Kumle Lane, Reno, Nevada
Directions: Across (W) from the Reno-Sparks Convention
Center (S Virginia St), just behind the Les Schwab Tire Center
Speakers/topic: Moira Smith, Teck Corp., Gold Mineralization on the Pogo Claims, East-Central Alaska. See abstract below.

#### GOLD MINERALIZATION ON THE POGO CLAIMS, EAST-CENTRAL ALASKA

Moira Smith, Teck Corporation, and exploration staff of Teck Exploration Ltd. and Sumitomo Metal Mining Co., Ltd.

Grassroots exploration by WGM Inc. in the early 1980s led to the discovery of a significant new high-grade gold deposit on the Pogo Claims, approximately 90 miles southeast of Fairbanks. The discovery is significant, as there is no appreciable history of significant discoveries or mining in the region. The deposit was explored by WGM and Sumitomo Metal Mining Co., Ltd. from 1991 to 1997, and by Teck Corporation and Sumitomo from 1998 to present. An underground program was carried out in 1999 and 2000.

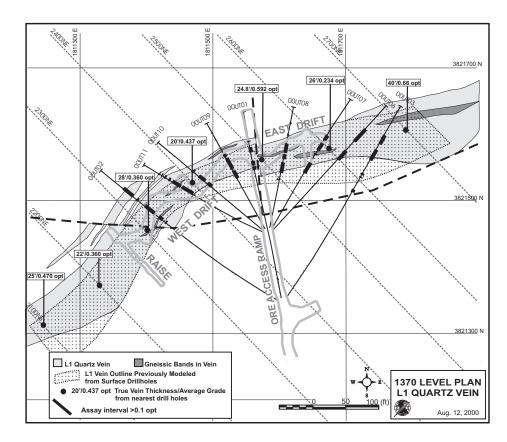
The region is underlain by highly deformed, amphibolite-grade paragneiss and minor orthogneiss of the late Proterozoic to mid-Paleozoic Yukon-Tanana terrane, intruded by mid-Cretaceous granitoid bodies thought to be the source of gold mineralization in the Fairbanks area and elsewhere along the "Tintina Gold Belt".

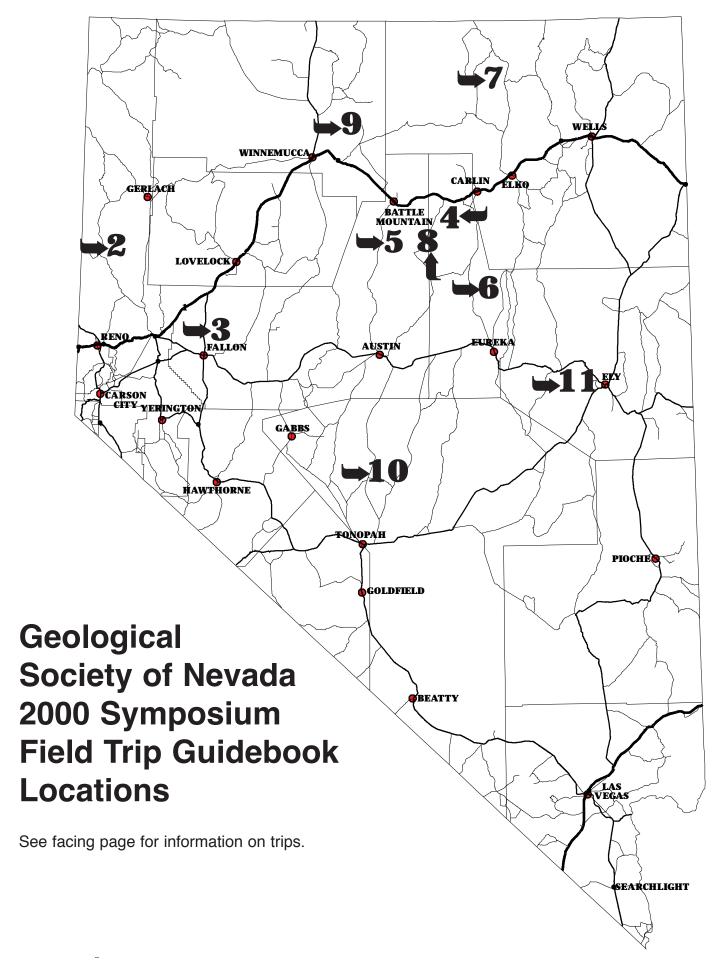
Exploration on the Pogo Claims has been focused on the Liese Zone in the northwest part of the claims. The Liese Zone is hosted primarily in gneiss, and lies approximately 1 mile south of the southern margin of the mid-Cretaceous Goodpaster Batholith. Over 200 surface drill holes pierce the Liese Zone, with nominal drill hole spacing ranging from 200 to 400 feet. An additional 120 underground drill holes reduce the spacing to 100 x 100' centres in the central L1 zone. Mineralization in the Liese Zone consists of three or more tabular, gently dipping, shear hosted quartz bodies, the largest of which are designated L1 and L2. The quartz bodies range from 1 to over 70 feet thick, averaging approximately 12 feet thick. The quartz contains approximately 3% ore minerals, including pyrite, pyrrhotite, loellingite, arsenopyrite, chalcopyrite, bismuthinite, various Ag-Pb-Bi±S minerals, maldonite, native bismuth and native gold. Early biotite and later quartz-sericite-stockwork and sericite-dolomite alteration are spatially associated with the Liese Zone, which shows characteristics of both vein and replacement types of mineralization. Geochemical data suggest a strong correlation between Au, Te and Bi, and a weaker

correlation between Au and As and Ag. The Liese Zone appears to represent a deep-seated manifestation of the "plutonic-related gold" deposit type, which includes the nearby Fort Knox mine.

A conservative kriged geological resource calculated in 1999 for the Liese L1 and L2 zones is 10.6 million tons at an average grade of 0.52 oz/T, for a total of 5,606,000 contained oz. (at 0.1 opt cut-off). Potential for discovery of additional high- and low-grade gold resources on the property is excellent. Surface work has outlined an eight-mile-long trend of anomalous gold in soil and rock samples, stretching to the southeast of the Liese Zone. Drill testing of selected targets in 2000 yielded encouraging results.

Details of the central L1 zone, showing the L1 zone in plan view as defined by surface and underground drilling, holes drilled in advance of the drift, average grades on 100' sections from underground drilling (drill holes not shown) and the outline of the ore access, drift and raise.





## SYMPOSIUM 2000 FIELD TRIP GUIDEBOOKS

Camille Prenn. GSN Publication Chair

**00FT2 Structure, Volcanic Stratigraphy, & Ore Deposits of the Pah Rah Range, Washoe County, Nevada**; Olinghouse Mine, Pyramid Mining District, Perry Canyon Caldera & Pah Rah Range Oligocene-Miocene Volcanic Succession. The focus is on newly discovered relationships in the structure, stratigraphy, and ore deposits of the Pah Rah Range. 132 p. **\$25.00 + \$5.00 shipping**.

**00FT3 Tilted Middle Tertiary Ash-Flow Calderas & Subjacent Granitic Plutons, Southern Stillwater Range, Nevada**; Cross Sections of an Oligocene Igneous Center; Southern Stillwater Range and Wonder Mining District. The focus is on extrusive and intrusive rocks of three steeply-tilted calderas in the southern Stillwater Range. Structural and volcanic features related to the formation of calderas, field relations constraining origin and timing of extension, and features of caldera-related hydrothermal systems are examined. 101 p. **\$25.00 + \$5.00 shipping**.

**00FT4** Eocene Magmatism & Its Role in Generating Sediment-Hosted Gold Deposits of the Carlin Trend, Nevada; Marys Mountain-Emigrant Pass Volcanic Field, Northern Carlin Trend (Beast, Genesis, & Betze-Post Deposits), Tuscarora Volcanic Field (Mt. Blitzen Volcanic Complex, Tuscarora Epithermal Precious-Metal Deposit). Eocene volcanic and intrusive centers in and around the Carlin Trend are examined with focus on Eocene intrusive rocks associated with ore. 223 p. \$35.00 + \$5.00 shipping.

**00FT5** Ore Deposits of the Battle Mountain Area, Nevada; Variations on a Theme in the Havallah & Antler Sequences; Lone Tree, North Peak, and Marigold Mines, Phoenix Project Au-Cu-Ag Skarn, Copper Canyon & Converse/Red Line Deposits. Ore deposits hosted by Pennsylvanian and Permian sedimentary rocks in the Battle Mountain area are examined with the varying influence of structure, intrusive rocks, and lithological variations within the Pennsylvanian-Permian strata on gold mineralization discussed. 172 p. \$35.00 + \$5.00 shipping.

**00FT6 Cortez to Eureka Gold Deposits**; Ruby Hill/Archimedes Mine Area, Pipeline, Gold Acres, and Cortez Gold Mines. Several sediment-hosted gold deposits found along the Battle Mountain to Eureka Mineral Belt are visited. 172 p. **\$35.00 + \$5.00 shipping**.

**00FT7 Giant Sedimentary Rock-Hosted Mineral Systems of the Carlin Trend, Nevada**; Gold Quarry & Betze-Post Deposits, Gold Quarry & Betze-Post Mines, Mike Deposit. Focus is on the geologic settings and attributes of the giant Gold Quarry and Betze-Post mineral

systems on the Carlin Trend with core and cross section displays of the refractory "roots" to these systems (e.g. Deep Sulfide Feeder, Deep Post/Meikle). 165 p. \$45.00 +\$5.00 shipping.

**00FT8 Volcanic History, Structure, & Mineral Deposits of the North-Central Northern Nevada Rift, Nevada**; Northern Shoshone and Sheep Creek Ranges, Snowstorm Mountains, Midas, Ivanhoe, and Mule Canyon Districts. Focus is on the relations between rift-related volcanism, tectonism, sedimentation, and mineralization. 174 p. **\$35.00 + \$5.00 shipping**.

**00FT9 Geology & Ore Deposits of the Getchell Region, Humboldt County, Nevada**; Osgood Mountains region, Getchell, Twin Creeks, Pinson, and Preble Mines. Focus is on the complex and poorly understood stratigraphy and structural geology of the Osgood Mountains region with an overview of the regional geologic setting and interpretations of the tectonic history of the region, along with details of the mineralization and geology at each of the mines. 153 p. **\$35.00 + \$5.00 shipping**.

**00FT10 Comparisons of Various Types of Ore Deposits in South-Central Nevada;** Rawhide, Tonopah Copper, & Round Mountain Mines, Three Hills Project, Tonopah & Goldfield Districts, Gemfield Deposit. Different styles of mineralization, host rocks, and structural controls of these deposits are examined. Mineralization at the Rawhide Au/Ag system is examined and the mineralization of the Ag/Au vein systems of the Tonopah mining district is discussed. The fracture-controlled/disseminated Au deposit at Three Hills is also examined along with the Tonopah Copper Project, a classic leached cap of a porphyry copper system. The Goldfield high-sulfide caldera-related system is discussed along with the world-class Au deposit, Round Mountain. 223 p. **\$35.00 + \$5.00 shipping**.

00FT11 Cenozoic Tectono-Magmatic Evolution of White Pine County: Core Complexes, Eocene-Oligocene Volcanic Centers, Episodic Extensions and Shortening, and Disseminated Gold Deposits, Nevada; White Pine, Central Egan, and Schell Creek Ranges, Illipah Mine, Snake Range Metamorphic Core Complex, Robinson Mining District. A geologic transect across the White Pine, Egan, Schell Creek, and Snake Ranges serves as the basis for examining the evolution of many tectonic, structural, and hydrothermal features found in the eastern Great Basin. 168 p. \$35.00 + \$5.00 shipping.

A complete set of Field Trip Guidebooks from Symposium 2000 is \$300.00 + \$20.00 shipping.

#### SYMPOSIUM 2000 PROCEEDINGS AVAILABLE NOW!

72 Manuscripts, 90 Abstracts, 1,234 p. \$110.00 + \$10.00 shipping

#### SYMPOSIUM 2000 PROCEEDINGS ON CD AVAILABLE NOW!

72 Manuscripts, 90 Abstracts, Some Color Maps, 1,234 p. \$50.00 + \$5.00 shipping.

#### PAID ADVERTISEMENTS





#### BONDAR CLEGG

Since 1962

#### Eric O. Ruud

Manager, US Operations

50 East Greg Street, Suite 102 Sparks, Nevada 89431 Tel: (775) 359-9330 Cel: (775) 843-3424

Fax: (775) 359-9386

Email: eruud@bondarclegg.com www.bondarclegg.com



# MINERAL EXPLORATION SERVICES

SOIL SAMPLING CLAIMSTAKING LAND STATUS RESEARCH GEOPHYSICAL SURVEYS

3545 Airway Dr., Suite 106, Reno, NV 89511 Tel: (775) 954-1082 Fax: (775) 852-8893 email: day@mineralexploration.com

# LARGE FORMAT COLOR COPIES

FROM YOUR COLOR ORIGINALS

## **CANON A-1 BUBBLE JET PRINTER**

- PLUS -

- CANON 1000 COLOR COPIES
- COMPLETE BINDERY DEPT.
- HIGH SPEED XEROX COPIES
- LAMINATING TYPESETTING



NEVADA INSTANT TYPE YOUR ONE-STOP FULL-SERVICE COPY SHOP 50 EAST GREG STREET, #108 • SPARKS • 359-4835



# Baroid Drilling Fluids - IDP

A Halliburton Company

PO Box 287 Winnemucca, Nevada 89446 775-623-4643 www.baroididp.com

email-cburnell@baroid.com

Superior Products and Service Local and International Availability

Service Representatives Located in

Winnemucca Elko Salt Lake City Las Vegas

(or wherever you need one!)

# **WE CAN HELP!**

- Environmental and exploration support services
- · Working throughout the United States since 1964
- Experience in Mexico / Canada / Alaska



NORTH AMERICAN EXPLORATION INC.
NORTH AMERICAN MINE SERVICES INC.
GEOLOGY · GEOPHYSICS · GEOCHEMISTRY
HYDROLOGY · ENVIRONMENTAL SERVICES

472 North Main • Kaysville, Utah 84037 • Phone (801) 546-6453 Fax (801) 546-0884 nae@nae-xploration.com



Carlin Trend Mining Supplies & Service 310 Silver Street

Elko, Nevada 89801 Tele: (775)778-0668 Fax: (775)778-0687 carlintrend@elkony.com

Claim Staking • Soil Sampling • Mine Hazard Fencing

Geological & Drafting Supplies

Temporary Personnel All Fields
Natural Resource & Mineral Surveys

## **UP-COMING EVENTS**

Oct 5 Nevada Petroleum Society Monthly Meeting. Dr. A. Elizabeth Jones Crafford, Tectonic Terranes of Central Nevada. Call Diane Abbott for reservations at 775/827-1323

Oct 6 Well Construction Workshop, Peppermill Hotel & Casino, Reno, NV. Sponsored by the Nevada Water Resources Assn & the American Water Works Association 775/626-6389, donna30@sprynet.com

Oct 7 GSN Annual Picnic at Reno, NV. 775/323-3500, gsn@mines.unr.edu

Oct 9-12 MINExpo Int'l 2000, Las Vegas, NV. www.minexpo.com

Oct 20 GSN Membership Meeting in Reno, NV. 775/323-3500, gsn@mines.unr.edu

Oct 30-Nov 3 Alaska Miners Assn, Annual Conv and Trade Show, Sheraton Hotel, Anchorage, AK. www.alaskaminers.org or 907/563-9229

**Nov 6-8** Applied Geologic Remote Sensing Integrated Solutions for Real World Problems in Las Vegas, NV. 800/582-2228, www.alexispark.com/roomres.html

**Nov 7** Denver Prospect Fair & TechnoFest, Colorado Conv Center, Denver, CO. 303/446-2253, Dapl2253@aol.com

**Nov 10-11** SEG Short Course, Gold in 2000, at Lake Tahoe, NV. 720/981-7882, seg@segweb.org, www.segweb.org

**Nov 12-15** GSA Annual Meeting, Reno/Sparks Conv Center, Reno, NV, www.geosociety.org/meetings/2000

**Nov 13-15** Randol at Vancouver-Global Mining Opportunities, Robson Square Conf Centre at Vancouver, BC. 303/526-1626 or www.randol.com

**Nov 16-18** Manitoba Mining & Minerals Conv 2000 at Winnipeg, Manitoba, Canada. 1-800/223-5215

**Nov 28-30** Conf on Mercury in Mining, Cathedral Hill Hotel at San Francisco, CA. 513/569-7844

**Dec 4-8** NWMA Annual Meeting & Expo in Spokane, WA. Pat Bronchetti, 509/624-1158, www.nwma.org

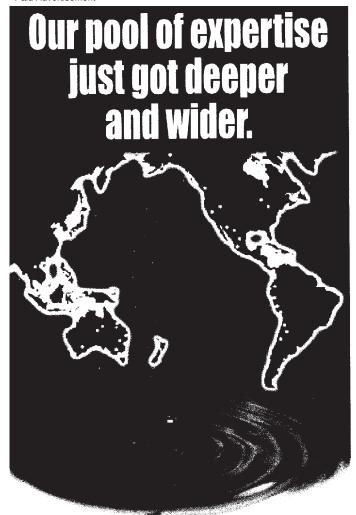
#### **GSN Newsletter Monthly Advertising Rates**

Business card size  $(3^{1}/2 \times 2'')$  \$ 50.00 Quarter page  $(3^{1}/2 \times 4^{3}/4'')$  150.00 Half page  $(4^{3}/4 \times 7^{1}/2'')$  300.00

Classified ads \$10/line (up to business card size)

For an advertising form, call the GSN office at 775/323-3500 or fax 323-3599. Camera-ready ads must be received by the 20th of the month to appear in the following month's newsletter.

Paid Advertisement



# ALS Chemex

Two of the world's most widely recognised laboratory groups have merged to form a combined source of skills and expertise that has no equal in the supply of analytical services to the Mineral Exploration and Mining Industry. Reliable, timely information is the most powerful tool and the most valuable currency you can utilise in the

It makes sense then to put your trust in suppliers who offer consistent excellence and innovative technology on a global scale, regardless of where you are exploring for tomorrow's mines.

Contact us on our website www.alschemex.com

Excellence in Analytical Chemistry

capital commitment decision-making process.



#### **GEOLOGICAL SOCIETY OF NEVADA**



gsn@mines.unr.edu ■ www.gsnv.org TELEPHONE (775) 323-3500 POST OFFICE BOX 12021 RENO NV 89510-2021 USA NON PROFIT ORGANIZATION U.S. POSTAGE PAID RENO, NV PERMIT NO. 625

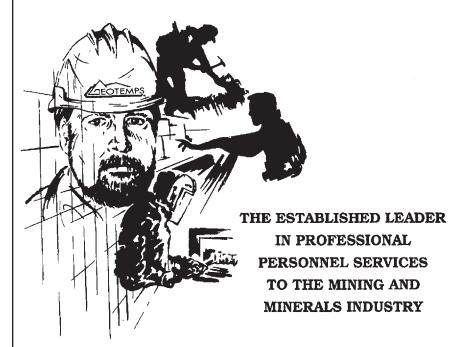
## THE 2000 SYMPOSIUM PROCEEDINGS BOOKS AND CD'S ARE HERE!!

WOW — That was fast!

**Bondar-Clegg** will host a "pick-up party" on October 12 from 5:00-7:00 pm at 50 E. Greg Street, Suite 102. Please call Cami Prenn at 856-5700 if you need to check on your order.

Paid Advertisement

# PERSONNEL SERVICES TO MINING COMPANIES - WORLDWIDE





World-Wide Services

If you are a mining company and need people, call Geotemps. If you are interested in working for a mining company, call Geotemps. Call today, we will change your life.

# RENO CORPORATE OFFICE

Phone: 775/746-7146 Fax: 775/746-7156 http://www.GEOTEMPS.com E-mail: mining@geotemps.com

Lyle Taylor - President & CEO

other offices: ELKO - ELY - FERNLEY WINNEMUCCA - TUCSON