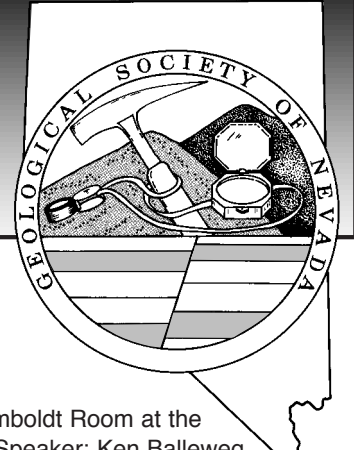


# GSN NEWSLETTER



December 2001, Vol. 15, No. 10

## PRESIDENT

**Dave Shaddrick**  
Rubicon Resources Inc.  
DShaddrick@aol.com

## VICE PRESIDENT

**Bob Thomas**  
Consulting Geologist  
rdtexplore@prodigy.net

## SECRETARY

**Ann Carpenter**  
Consulting Geologist  
carpenter@ncgi.reno.nv.us

## TREASURER

**Camille Prenz**  
Mine Development Associates  
cami@mda.com

## MEMBERSHIP CHAIR

**Greg McN. French**  
Consulting Geologist  
GMcNFrench@aol.com

## PUBLICATION CO-CHAIRS

**Elizabeth A. Zbinden**  
Independent Geologist  
E\_Zbinden@geology.reno.nv.us

## Heidi L. Anderson

Student/Geophysicist, U of CA Berkeley  
andheidi@uclink4.berkeley.edu

## OFFICE MANAGER

**Laura Ruud**  
gsn@mines.unr.edu

## CALENDAR OF EVENTS

**Dec 5**

**Wednesday**

**WINNEMUCCA CHAPTER MEETING:** Humboldt Room at the Red Lion Hotel/Casino, Winnemucca, NV. Speaker: Ken Balleweg, Placer Dome Exploration, Cortez Gold Mines, title: "Geologic Overview of the Mulatos Deposit and the Mulatos Gold District, Sonora, Mexico." Bar opens at 6:45 pm, meeting at 7 pm. Contact Sheila Bunch for information, sbunch@lambdacom.com, 775/623-0202.

**Dec 19**

**WEDNESDAY**

**GSN CHRISTMAS DINNER MEETING AND 2<sup>ND</sup> ANNUAL FOUNDATION ROCK RAFFLE:** Reno Elks Lodge, Reno, NV. Speaker: Jeff Doebrich, U.S. Geological Survey, Reno, NV. Topic: "A Journey Through Saudi Arabia." Social-6 pm, dinner-7 pm (**\$20**), talk-8 pm. Contact Laura Ruud, 775/323-3500, gsn@mines.unr.edu.

**Dec 20**

**Thursday**

**ELKO CHAPTER MEETING:** High Desert Inn, Elko, NV. Speaker and topic to be announced. Refreshments at 6:30 pm. Contact Leslie Creel at 775/468-4400 for information.

SOUTHERN NEVADA CHAPTER will not have a meeting in December due to the Christmas Holiday. They'll be back in January!

**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 SCHOLARSHIPS DISBURSED

The recipients of the **Geological Society of Nevada Endowed Scholarship** were announced November 1, 2001 at the Mackay School of Mines annual scholarship luncheon. The 2001-2002 recipients of the GSN scholarship are **Melanie Berg**, a sophomore in Geology with a perfect 4.0 GPA (**\$1342.00**) and **Jess DeBusk**, a senior transfer student in Geology with a 3.50 GPA (**\$1000.00**). Each student wrote a very appreciative letter to the GSN membership. The funds that GSN provides to these students can determine whether that student can afford to go to school full-time or not.

GSN donates \$2000 each year to the GSN Endowed Scholarship Fund. The GSN scholarship is just a portion of the \$279,239 that was awarded to undergraduates and graduates at Mackay School of Mines this year. Mackay attracted a total of 75 new undergraduates and has a record number of student Full-Time Equivalents this year (245) up from the low of 190 in 1997. The GSN enjoys a good working relationship with the Mackay School of Mines and are proud to support students working on their education in Geology.

## December Sponsors

### ALS Chemex

994 Glendale Avenue  
Sparks, NV 89431-5730  
775 356 5395  
Fax 775 355 0179



### NEVADA NORTH RESOURCES, USA, INC.

**LARIE RICHARDSON**

501 South First Avenue, Ste N  
Arcadia, CA 91006-3888  
TEL. 626-821-9630  
FAX 626-821-9635

**KENNETH D. CUNNINGHAM**

5900 Philoree Lane  
Reno, Nevada 89511  
TEL. 775-849-2347  
FAX 775-849-2336

### Stretch's Exploration, Inc.

**Stretch Petersen, President**

P.O. Box 547

Battle Mountain, NV 89820

775/635-5410, fax 775/635-8893, cell 775/635-9546



### **DONATIONS STILL NEEDED FOR GSN FOUNDATION ROCK RAFFLE**

The Geological Society of Nevada Foundation's 2<sup>nd</sup> Annual "Rock Raffle" fundraiser is on schedule for the GSN annual Christmas meeting, December 19<sup>th</sup>, 2001. We are still seeking donations of any items suitable for raffle: attractive rocks, fossils, or mineral samples, wine or other spirits, logo items, geological equipment or publications, commemorative coins, books, cakes, gift baskets, or any geology or mining-related items will be gratefully accepted.

The raffle proceeds will be applied to the GSN Foundation's unrestricted fund to benefit GSN's educational projects which include grants to Nevada K-12 classes for transportation on earth science related field trips, scholarships to UNR and UNLV geology students, grants to the UNR DeLaMare Library, and grants for geologic mapping in Nevada.

Please send donated items to DD LaPointe at the following address to arrive before Dec. 17<sup>th</sup>, or drop them off at NBMG, or call to arrange pick-up of donated items if you are in the Reno-Sparks-Carson City area. Please let me know if you would like a receipt for the value of your tax-deductible donated items, and I'll send you one.

**Thank you!** D.D. LaPointe, GSN Educational Committee Co-Chair and GSN Foundation Trustee, Nevada Bureau of Mines and Geology/MS178, Room 314, Scrugham Engineering/Mines Building, University of Nevada, Reno, 784-6691, ext. 134.

### **GSN EARTH SCIENCE FIELD TRIP GRANTS GIVEN OUT**

The GSN Foundation has once again made it possible for schoolchildren in Kindergarten through 12<sup>th</sup> Grades, all over the state of Nevada, to embark on Earth Science Field Trips. Over 2,000 students are being taken on 33 field trips this school year, where they are gaining hands-on learning experiences in the earth sciences. These trips include destinations all over the state from the Reno and Fallon areas to Great Basin National Park and down to Red Rock Canyon and the Valley of Fire, with many points in between. Some students are touring mines such as Coeur Rochester's silver mine and Kennecott's Denton Rawhide Mine, while others are hunting stickleback fish fossils in Eagle Picher's diatomite pit. They will learn about sedimentary rocks, earthquake faulting, volcanics, erosion, glaciation, etc. A total of \$8,022 was requested and of that, the Foundation funded \$5,000. At-risk schools were funded at 75% and others were funded at 50% or more. Thanks to your generous donations to the GSN Foundation, we have been able to continue this program for another year.

### **GSN FALL FIELD TRIP 2001 PUBLICATION AVAILABLE**

The Field Trip Guidebook (Special Publication #34) entitled "Magmatism and Gold Deposits in North-Central Nevada-Variations on a Theme" is now available for sale at the GSN office for the low price of \$35. Dave Emmons and the Echo Bay staff lent a big hand in preparing the field trip guide book, which will serve as an excellent source of data for McCoy/Cove, particularly as the mining there has recently terminated and not much in the way of additional material will be forthcoming. Bob Thomas, GSN Vice President, served as editor and field trip organizer. Contact the GSN office today to place your order! 775/323-3500 or [gsn@mines.unr.edu](mailto:gsn@mines.unr.edu).

### **The GSN Foundation wishes to thank the following new Founding Donors for their support:**

#### **"Donor" Level**

L. John Bernard  
Ann & Tom Carpenter  
Curt Dechert  
Steven M. Green  
Maureen Leshendock  
Michael Lindholm  
Camille Prens  
Shea Clark Smith  
William R. Wilson

**"YEAR-END TAX PLANNING -  
Don't forget, your donations to the GSN  
Foundation are tax-deductible!"**

**If you would still like to be one of the forever Founding  
Donors of the GSN Foundation we must receive your  
donation by December 31, 2001.**

Visit our web site at:  
[www.gsnv.org](http://www.gsnv.org)

# GSN December 19, 2001 Membership Meeting

**Date:** Wednesday, December 19, 2001  
**Time:** Social-6:00, Dinner-7:00, Meeting-8:00  
**Cost:** \$20.00 (dinner)  
**Reservations:** 775/323-3500; fax 323-3599 or e-mail: gsn@mines.unr.edu  
**Deadline:** Reserve by noon Monday, December 17

**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:** Jeff L. Doebrich, U.S. Geological Survey, Reno, NV. See abstract below.

## A JOURNEY THROUGH ARABIA

Jeff L. Doebrich, U.S. Geological Survey, Reno, Nevada

For most, the mention of Saudi Arabia conjures up images of oil, sand, and camels (and perhaps other things of late). In fact, Saudi Arabia is a land of varied, geology, landscapes, and ancient history. The geology of Saudi Arabia is composed of (1) the Neoproterozoic Arabian shield exposed in the western part of the country, (2) Phanerozoic sedimentary rocks of the Arabian platform in the east, (3) Cenozoic volcanic fields related to Red Sea rifting covering portions of Arabian shield and platform rocks in the west, and (4) Cenozoic sedimentary rocks along the Red Sea margin (fig. 1). Significant non-fuel mineral resources of Saudi Arabia include actively producing gold deposits in the Arabian shield, world-class phosphate resources in the Arabian platform rocks of the northern border regions, and sediment-hosted base-metal potential in both Arabian platform rocks and Cenozoic Red Sea margin sequences.

While the country is home to some of the harshest and largest sand-filled deserts in the world, it is also home to some of the most rugged and spectacular mountain terrane, rising to elevations of 10,000 feet, where baboons and hyena live today amongst the Juniper. This elevated region of the southwestern Arabian shield is bounded on the west by the Red Sea escarpment, a feature displaying 1 to 2 km of relief, and continuing into Yemen (fig. 1).

Continued on page 4.

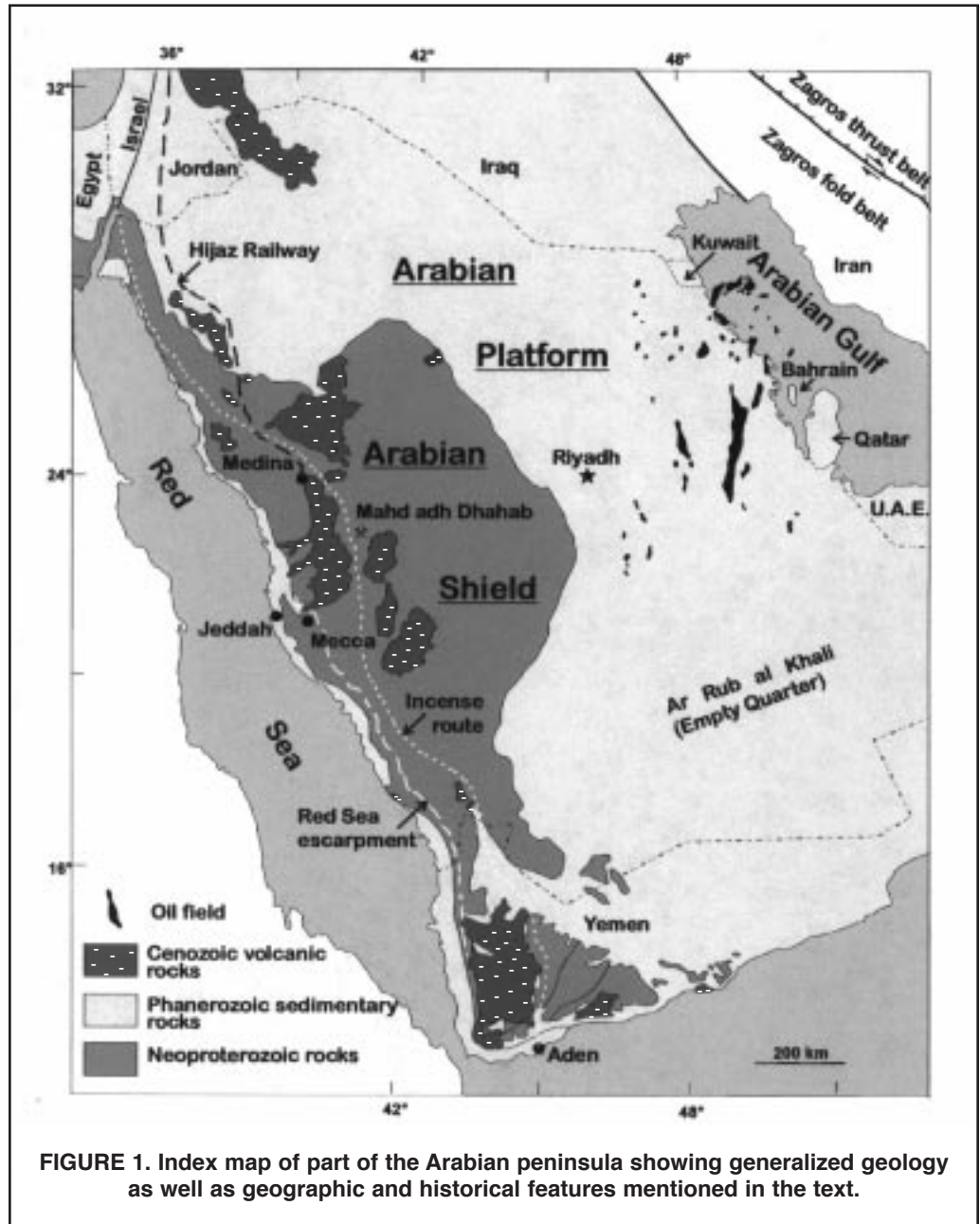


FIGURE 1. Index map of part of the Arabian peninsula showing generalized geology as well as geographic and historical features mentioned in the text.

**ABSTRACT** (continued from page 3)

Dissected and variably eroded flat-lying sedimentary sequences of the Arabian platform locally give rise to landscapes that rival those in the national parks of the western U.S. Cenozoic volcanic fields provide moonscapes typical of basaltic lava fields and remain active today with low-temperature geothermal resources and locally continuous microseismicity. The holy city of Medina was almost destroyed by the most recent volcanic activity in 1254 A.D. The Red Sea coastal plain is a relatively flat sand and sabkha covered region along most of the Red Sea margin, which separates rocks of the Arabian shield from some of the most spectacular coral reefs in the world.

The position of the Arabian peninsula at the cross roads of Asia, Africa, and Europe has produced a long history of trade, mining, and conquest, the remnants of which can still be seen today. Nabatean tombs and dwellings, petroglyphs illustrating an extinct world, ancient gold and copper mines, portions of the ancient incense route from Yemen to the Mediterranean, Ottoman forts, and the remains of T.E Lawrence's campaigns along the Hijaz Railway (fig. 1), all document a rich and varied history spanning more than 3000 years.

## GSN FOUNDATION FINANCIAL REPORT

Enclosed for your information is the latest financial report of the GSN Foundation. The Foundation's goal is to create an endowed fund that will eventually be large enough to fund the GSN's philanthropic causes. Currently the GSN provides scholarships to the University of Nevada, Reno's Mackay School of Mines and the University of Nevada, Las Vegas' Geoscience Department. In addition, \$5000 is donated each year for K-12 Earth Science Field Trip Grants all over the state of Nevada. In the future, the Foundation hopes to be able to help fund the Quadrangle Mapping Grant program and other worthy causes. If you have any questions regarding the Foundation, please contact Joseph Kizis, Jr. at 775/746-5055 or email: joekizis@home.com.

	2000-2001	Year to Date 2001-2002	Cash in Accounts
<b>CONTRIBUTIONS</b>			
Endowment Fund	\$9,000.00	\$1,250.00	\$10,250.00
NBMG Mapping Grants	100.00	200.00	300.00
Operating Expenses	1,000.00	0.00	854.00
School Field Trips	430.00	155.00	585.00
Unrestricted Funds			-
Sarah Andrews Book Sales	1,511.12	926.65	
Christmas Fundraiser	1,634.00		
Donations	5,077.00	2,123.00	5571.77
	\$18,752.12	\$4,654.65	\$17,560.77
<b>EXPENSES</b>			
Office Costs	136.00	10.00	
Donations			
School Field Trips	5,200.00	TBD	
UNLV Scholarship	500.00		
	\$5,836.00	\$10.00	
<b>PROFIT</b>	\$12,916.12	\$4,644.65	



# 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



- GIS GEOLOGIC MAP SPECIALISTS  
CUSTOM DATA INTEGRATION
- DATABASE DESIGN & CONSTRUCTION  
FOR ALL TYPES OF GEOLOGIC INFORMATION
- GEOLOGIC INFORMATION RESOURCES  
WWW.GEOLOGICSERVICES.COM

1460 WEST TWELFTH STREET  
 RENO, NEVADA 89503

775-846-7901  
 INFO@GEOLOGICSERVICES.COM

## G.I.S. Land Services

Greg Ekins M.S. R.L.P. #32306 President  
 Mineral Landman - Computer Draftsman  
 "From Courthouse Records to Final Map"



Land Status Maps  
 AutoCad - ArcView - MapInfo  
 Geologic, GeoChem and Hazard Identification Maps

P: 775-746-8803 6635 Broadridge Ct.  
 F: 775-746-8802 E: gelandman@aol.com Reno Nv. 89523



## Carlin Trend Mining Supplies & Service

310 Silver Street  
 Elko, Nevada 89801  
 Tele: (775)778-0668  
 Fax: (775)778-0687  
 carlontrend@elkonv.com

- Claim Staking • Soil Sampling • Mine Hazard Fencing  
 Geological & Drafting Supplies  
 Temporary Personnel All Fields  
 Natural Resource & Mineral Surveys



## Baroid Drilling Fluids - IDP

A Halliburton Company

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

email: Jack.Taylor@halliburton.com  
 cell: 775-846-4193

Superior Products and Service  
 Local and International Availability

Service Representatives Located in

Winnemucca  
 Elko  
 Salt Lake City  
 Las Vegas

(or wherever you need one!)

# AIPG 12<sup>TH</sup> ANNUAL ROUNDUP DINNER

Please join the AIPG, Nevada Section, as they hold their 12<sup>th</sup> annual Exploration Roundup Dinner at the Eldorado Hotel and Casino. Confirmed speakers are from the following companies:

<b>Meridian</b> Rich Larson	<b>Barrick</b> Ed Cope	<b>Echo Bay</b> Ralph Bullis	<b>Placer Dome</b> Greg Cox
<b>Agnico-Eagle</b> Mark Abrams	<b>Cameco</b> Al Moran	<b>Newmont</b> Ken Paul	<b>Ivanhoe Mines</b> Ed Flood
<b>Kennecott</b> Geoff Ballantyne	<b>Cordex</b> Andy Wallace	<b>Kinross</b> Bob Schafer	<b>AngloGold</b> Don Birak

**Date:** Tuesday, December 18, 2001.

**Time:** 6:15 pm, cocktails hosted by **Eklund Drilling Co.**; 7:00 pm dinner; 8:00 pm program.

**Place:** Eldorado Hotel and Casino (corner, 3rd & Sierra St, Reno, NV, parking entrance, Sierra St, free with validation).

**Cost:** \$35 AIPG, GSN Members and Spouses; \$40 others.

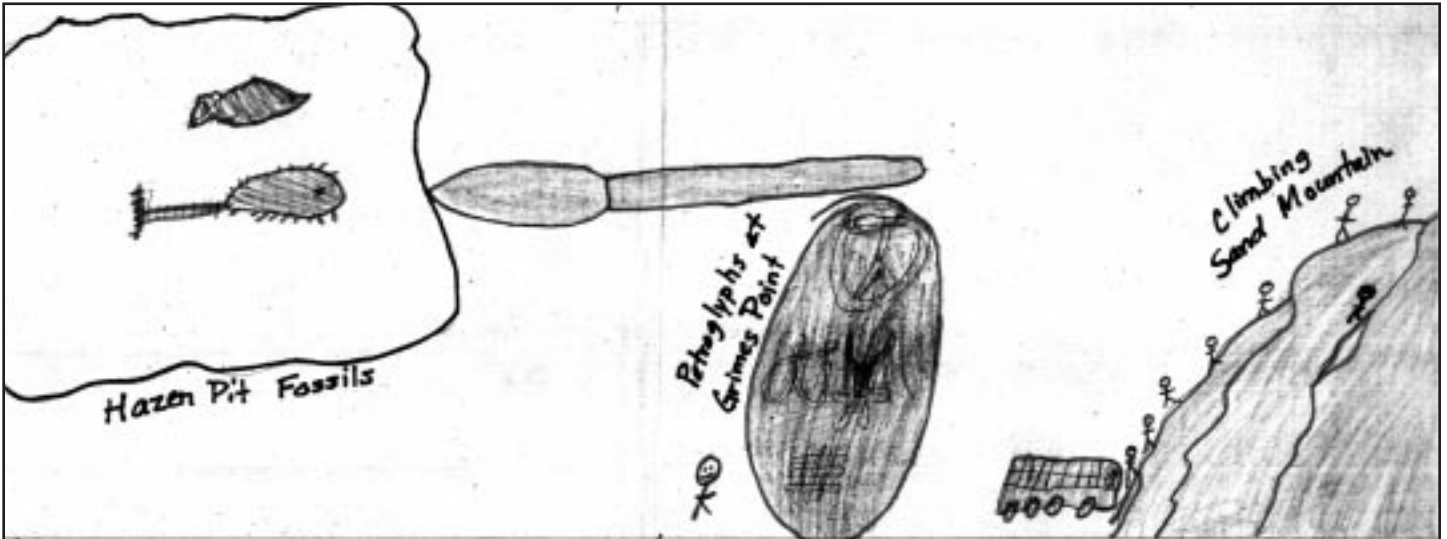
Door prizes courtesy of **Mark Stock**, Global Hydrogeologic Services, Inc.

Reservations are required. Contact Kel Buchanan at 786-4515, fax 786-4324 or summitcrk@aol.com.

# ROUND MOUNTAIN MINE DONATES GOLD SPECIMENS

Round Mountain Gold Mine which is owned by Homestake Mining Company (50%) and Echo Bay Mines (50%) will be generously donating 2 – 3 beautiful gold specimens for the 2nd Annual GSN Foundation's Rock Raffle. The specimens will be auctioned off at the GSN Christmas Dinner meeting on Wednesday, December 19th. Be prepared for this rare opportunity by bringing your checkbook or credit card to the meeting. All proceeds from the Auction will go into the GSN Foundation's Endowment Fund which we hope will continue to grow over the years. If you would like to preview a sampling of specimens that are coming out of the Round Mountain Gold Mine, please visit [www.geoprime.com](http://www.geoprime.com).

There will also be many other donated items that you will have a chance to win by purchasing raffle tickets at the dinner. Several members will be donating some very nice mineral specimens and gemstones. Also, Ed MacKevett is donating a specimen of Kennecott hi-grade copper ore from Alaska that is sawn on both sides and weighs about 3 lbs. Consider bringing an extra \$20 for those \$1 chances to WIN!



Dear GSN,  
 Thank you for giving us money to go on fieldtrips. It was really fun digging up fossils. I got 20 fossils.

It was really fun at Grimes Point and Sand Mt. At Grimes Point I found like 20 petroglyphs. At Sand Mt. I climbed up three times to the top.

Sincerely,  
 Amanda Tye

West End Elementary, Fallon, NV

*Merry Christmas*  
 to all our GSN members and friends



Laura Ruud, GSN Office Manager and Raye Buckley, GSN Typographer

## UP-COMING EVENTS

**Dec 3-7** – Northwest Mining Association's 107<sup>th</sup> Annual Meeting, "GeoDestiny-Resources for the Future", Double tree Hotel, City Center, Spokane, WA. 509/624-1158, [www.nwma.org](http://www.nwma.org). Stop by the GSN Booth #10!

**Dec 5** Wednesday – WINNEMUCCA CHAPTER MEETING: Winnemucca, NV. Ken Balleweg, Placer Dome Exploration, Cortez Gold Mines, Geologic Overview of the Mulatos Deposit and the Mulatos Gold District, Sonora, Mexico. Sheila Bunch, [sbunch@lambdacom.com](mailto:sbunch@lambdacom.com), 775/623-0202.

**Dec 15** – SME Christmas Party, Harrah's Prospector Club, Reno, NV. Begins at 6 pm. Marcie Wood, 775/331-2375.

**Dec 18** – AIPG Nevada Section, 12<sup>th</sup> Annual Roundup Dinner, Eldorado Hotel and Casino, Reno, NV. Reservations required. Contact Kel Buchanan, 775/786-4515, [summitcrk@aol.com](mailto:summitcrk@aol.com).

**Dec 19, Wednesday** – GSN CHRISTMAS DINNER MEETING and 2<sup>ND</sup> ANNUAL FOUNDATION ROCK RAFFLE: Reno Elks Lodge, Reno, NV. Jeff Doebrich, USGS, Reno, NV. Saudi Arabia. Social-6 pm, dinner-7 pm (\$20), talk-8 pm. Laura Ruud, 775/323-3500, [gsn@mines.unr.edu](mailto:gsn@mines.unr.edu).

**Dec 20, Thursday** – ELKO CHAPTER MEETING: High Desert Inn, Elko, NV. Speaker and topic to be announced. Refreshments at 6:30 pm. Contact Keith Bettles, [kbettles@bgmi.com](mailto:kbettles@bgmi.com).

SOUTHERN NEVADA CHAPTER MEETING: Cancelled in December due to the Holiday.

### 2002

**Jan 11** – Geothermal Workshop, Great Basin Center for Geothermal Energy, Jot Travis Student Union, UNR, Reno, NV. For more info contact Terri Garside at 775/784-6691, ext 126 or [www.nbmj.unr.edu/geothermal](http://www.nbmj.unr.edu/geothermal).

**Jan 22-25** – Cordilleran Roundup – Hotel Vancouver, Vancouver B.C. Contact B.C. and Yukon Chamber of Mines, 604/681-5328 or visit the website: [www.chamberofmines.bc.ca](http://www.chamberofmines.bc.ca).

**Feb 25-27** – SME Annual Meeting, Phoenix, AZ. Contact SME 303/973-9550 or 800/763-3132.

**April 14-16** – SEG Annual Conv, Global Exploration 2002: Integrated Methods for Discovery; Denver, CO. [www.seg2002.org](http://www.seg2002.org).

## GSN HISTORY 101

Funny things happen on GSN field trips. The most recent event was yours truly being asked to write a history of the Society. Now I need your help. I am looking for any information about GSN that is pre-1990. Any newsletters, personal recollections, or anything else (except guidebooks and publications) would be most useful. I would even be willing to buy lunch in exchange for good memories, on a limited basis. Please send your cards and letters, or give me a call.

Thanks, Roger Steininger.

## "WHAT A PIT" CONTEST IN FULL SWING

The "What A Pit" website contest is in full swing this month, with the first contest happening now! Take a minute to check out the historical photo on the GSN web page at [www.gsnv.org](http://www.gsnv.org). If you can identify the "arm-waving old timer" then you will be eligible for a fabulous prize (a GSN Hat valued at \$14!).

Submissions can be sent to [whatapit@gsnv.org](mailto:whatapit@gsnv.org) or contact Mario Desilets at [desilets@unr.edu](mailto:desilets@unr.edu). You must be a current GSN member to win.



## GLOBAL EXPLORATION 2002: Integrated Methods for Discovery

[www.seg2002.org](http://www.seg2002.org)



**APRIL 14-16, 2002  
DENVER, COLORADO USA**

**Technical Sessions • Posters • Core Shack • Workshops • Field Trips • Exhibits**

Co-sponsored by: Society for Geology Applied to Mineral Deposits  
Association of Exploration Geochemists  
Society of Exploration Geophysicists

Major sponsors  
now include:

BHP Billiton, AngloGold North America, Barrick Gold,  
Companhia Vale do Rio Doce, Gold Fields, Newmont Mining,  
Rio Tinto, U.S. Geological Survey, Buenaventura

*Learning from the Discovery of the World's Great Mineral Deposits*

# GEOLOGICAL SOCIETY OF NEVADA



gsn@mines.unr.edu ■ www.gsnv.org  
TELEPHONE (775) 323-3500 FAX (775) 323-3599  
POST OFFICE BOX 12021  
RENO NV 89510-2021  
USA

NON PROFIT  
ORGANIZATION  
U.S. POSTAGE  
PAID  
RENO, NV  
PERMIT NO. 625

Please excuse the error on the November newsletter regarding your dues expiration date.  
The mail handler made a mistake.

Paid Advertisement

## PERSONNEL SERVICES TO MINING WORLDWIDE



THE ESTABLISHED LEADER  
IN PROFESSIONAL PERSONNEL SERVICES TO  
THE MINING AND MINERALS INDUSTRY



World-Wide Services

GEOTEMPS STANDS WITH THE INDUSTRY • AT  
PUBLIC HEARINGS • IN GOVERNMENT LOBBY  
EFFORTS • FOR WRITE IN CAMPAIGNS • WITH  
MEMBERSHIP IN LOCAL STATE AND NATIONAL  
INDUSTRY ASSOCIATIONS • BY ACADEMIC  
PARTICIPATION • ON INDUSTRY BOARDS • WITH  
BUSINESS DONATIONS

---

### RENO CORPORATE OFFICE

Phone: 775-746-7146 • Fax: 775-746-7156

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

Email: [mining@geotemps.com](mailto:mining@geotemps.com)

*Lyle Taylor* – President & CEO

Other offices:

ELKO • ELY • WINNEMUCCA • TUCSON