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Mid-TENN Gem'ers

Newsletter of
The Middle Tennessee Gem and Mineral Society, Inc.
P.O. Box 1256
Murfreesboro, TN 37133-1256

Inside this issue:

The Prez Rambles On...

Ok people. What happened to our picnic this year. I understand there were fewer than 10 people that attended. I even missed it. I'm still stunned that I missed out on food. I got distracted with something else and just forgot what night it was until late that night. What a bummer! We've got to change this somehow as our picnics used to be the most popular meeting we had. I guess life happens to all of us and we can't do everything we would like to do.

We're halfway thru the year. That means it's only a few more months until showtime. I'm extending a special presidential invitation for each member to help out in some way. That includes everyone from all three areas of our club. Most of the work is done each year by a few members. I am happy to say we have had more help the last 2 or 3 years than ever before. I'd like for us to increase the number of members that participate again this year.

You see the more that help we have the less each individual has to do. The less work each person has to do, the more time they have to see the show. Here is what you need to do. First go to you calendar, daytimer, etc and mark December 10 - 13. I know the show is December 11-12, so why did I say mark a day before and a day after? Good question. Here's why. We setup the show the afternoon of December 10. We need help with setup. If you are a good helper you'll stay Sunday after the show closes to help take everything down. That means you need to take Monday the 13th off to rest and play with the treasures you bought at the show.

You see if you schedule the 4 days, you'll be able to help with the show plus have many hours of shopping time. If you have many hours of shopping time, you'll have time to get to know some of our dealers. They are an interesting bunch with lots of varied experiences as many are from different parts of the country. You'll also have time to visit with members and get to know them better. And if your well organized you can do your Christmas shopping on Friday morning before show setup starts. Or better yet, spend the morning kicked back

~ cont'd on page 2

The MTG&MS, Inc. is a non-profit educational society dedicated to the study and enjoyment of the earth sciences. We are open to the public for the education of all who wish to attend. Society membership is open to persons interested in the earth sciences. Applications are available on request.

Meeting Dates 2004:
July 15th
August 19th
Setember 16th
October 21st
November 18th
December 16th

Dues are Due!!!

Dues are $12.00 for the first person of each household and $2.00 for each additional family member. Dues are payable January 1st and are prorated in April, July and October. Check the upper right hand corner of your address label for the year you are paid through.

Send dues to:
Will H. Smith
5304 Bellcrest Dr
Antioch, TN 37013

in your favorite chair with a cup of coffee or chocolate and relax a few hours before setup starts at noon. I'm a professional when it comes to leisure. Take my word, blocking out 4 days for the show is a great way to relax and enjoy our wonderful hobby. Get up and mark your calendar NOW! Then make the necessary arrangements to make it happen. You'll be glad you did.

I've been a dyed-in-the-wool rockhound for over 10 years now. I've collected (most with my silver pick) some beautiful rocks and minerals. I've had the opportunity to cut some beautiful gemstones. But you know the best gems I've found have been the people I've met along the way. Most of my best friends are members of our club. I've also met many interesting people while traveling around the country in search of rocks and minerals. I've even had to opportunity to visit some of these people in their homes.

I visited one rockhound I met in Quartzite, Arizona at his home in Prineville, Oregon. I visited another in Walla Walla, Washington. Some of our own club members have some great stories to tell. I encourage you to get to know them better. After all, rockhounds are some of the best people in the world. All this to say that while rockhounding is a great hobby, I've found the rockhounds are the true gems. Maybe I'll start a collection of stories of the rockhounds to go along with my rocks.

How's that for some serious rambling?

Steve
shenegar@
net-serv.com

The Southeast Federation of Mineralogical Societies, Inc
The Friendly Federation
Founded in 1976 to serve.

DMC Program of the SFMS Field Trip Committee

An Official Field Trip of the Western South Carolina Gem and Mineral Society

(Host)

An Official Field Trip of the Middle Tennessee Gem and Mineral Society

The Ray Mine and Little Ray Mine

9:00 AM, Saturday, August 14, 2004

WESCAGEM will host a field trip to the Ray Mine and Little Ray Mine on Saturday, August 14. We will meet at the Burger King in front of the Bi-Lo grocery store in Burnsville, NC at 9:00 AM.

Directions: Take Route 19 out of Asheville, NC and continue on 19E to Burnsville, NC.

From the Spruce Pine direction, take 19 to the crest to Burnsville. The Burger King is right there on Route 19. From there we will take Route 197 south for 0.7 miles and take a left onto Bolens Creek Road. We will drive for 1.3 miles and take a left onto Ray Mine Road, and drive to the end of the road. Then, there is a 1/3 mile uphill walk on a steep path to the mine.

What to look for: Beryl crystals, black and rare,green tourmaline, garnet, amazonite, thulite, fluorescent apatite, and mica. The Ray Mine is reported to be one of the most accessible sites, where you have a chance to find gem quality aquamarine. The Little Ray Mine is known for golden beryl.

Tools and Equipment: Sledgehammers, rock hammers, shovels, picks, screens and buckets. We will be searching and digging and busting rocks in the extensive dumps left from the mica mining. There is a good stream at the bottom of the dump to screen your diggings. Very little good material is found lying on the surface. If you plan to try more than one hunting strategy, it is best to share tools with a buddy. You will not need a screen while you are splitting rocks, and you will not need sledge hammers while shifting dirt. I recommend you bring drinks and snacks, also.

Cost: There will be a $2.00 charge per vehicle payable to Mr. Bennett for the privilege of parking in his yard at the end of Ray Mine Road. Car pooling would save some money and prevent parking congestion.

Restrictions: We will be guests on National Forest Land. Do not enter any of the steep cuts or shafts, as they are dangerous. Do not dig holes large enough for someone to injure themselves, unless you fill it back in. It is better to strip a wider area of the spoil piles. Do not do unnecessary damage to the vegetation. Carry out all litter, if you can carry a full can uphill, you should be able to carry an empty one down. Carefully supervise any children.

Contact Information: Contact Bill Wetzel with any questions at (864)306-6749 or wwetzel@earthlink.net

Accommodations in Burnsville -

Blue Ridge Motel, 204 W. Blvd. (828)682-9100

Carolina Country Inn, W. Main St. (828)682-6033

Mountain View Motel, Hwy. 805 (828)682-2115

Toe River Campground, Blue Rock Road and more lodgings in Asheville or Spruce Pine.

Field trips are open to all members of associated clubs of the DMC program of the SFMS Field Trip Committee and to all members of SFMS member clubs who have provided their membership with SFMS liability insurance. Because of insurance requirements, members of the GENERAL PUBLIC are NOT invited on this or any DMC program field trips!

DMC Program / SFMS Field Trip committee's purpose:

To collect field trip information from it's member societies; schedule and coordinate field trip dates; disseminate field trip information to all member clubs so that each member society may publish this information as one of their "official" scheduled field trips.

Please reply by e-mail to: dmc@gamineral.org

World Wide Web site for the DMC is:

http://www.gamineral.org/dmc.htm

Donelson Fall Classes

Some changes are being planned for the Fall Classes at Donelson. More and more new students are signing up for Lapidary and Silver classes causing it difficult to deal with everyone. So, some changes are anticipated. In the past whoever was able to get to Donelson first could sign up for all the classes, keeping others from having a chance. Most classes are posted 30 days before beginning. Starting in the Fall, New Students will have priority over existing students for "one" class, then existing students will be allowed to sign up for one class. Both may go on a Joe's waiting list for other classes which will become open one week before startup. Joe will assign so everyone gets an equal chance to take classes until they are full.

The fee's will change so both the Center Fee and Maintenance fee will be the same for each class no matter how many you take during the quarter. With all the new interest and added equipment, this new fee method will help a little to cover the cost of operation.

So much for the little details. Donelson has added a 14" saw (loaned by Cameron) two auto-feed 10" saws, a 10" trim saw, and two 8" saws which are running every class with that wonderful material from June Millers.

This Fall, Donelson is looking at offering more Silver classes, a Glass class, a Casting class, and more Lapidary classes. The Summer Classes have started and are full. If interested in Silver, it could be possible for you to get in one of the Saturday Classes. See Bill for more info.

For more information Contact Joe Powell at Donelson Senior Citizens 883-8375.

Remember one of our three monthly meetings is held at the Donelson Center on each Sunday following the regular Murfreesboro meeting. The Donelson meeting starts at 3 PM and last one hour. Come to a meeting and visit the Lapidary Classroom.

Thanks to Bill Hunter from Chattanooga, for the beautiful box of slabs he donated for resale to students at Donelson and Tullahoma. This money goes to help purchase miscellaneous items for the school, so if you've got an old box full laying around, get them to Joe, they will help the students and the school.

Wildacres Lapidary School

Wildacres is a beautiful mountaintop resort just off the Blue Ridge Parkway near Little Switzerland, North Carolina. This resort is subsidized by the Blumenthal Foundation to provide a retreat for the arts and humanities. The Southeast Federation of Mineralogical Societies has a contract to have 3 weeks each year to offer lapidary courses to its members. Where can you get 6 days of room, board, expert instruction and a variety of fun activities for only $260?

A few classes are full, but there are still numerous openings to attend Wildacres classes in August or September. The sooner your application is received the better the chance for you to get in the class you want.

In the August 23 to 29 sessions, we have openings in Beading and Design, Beginning Chainmaking, Intermediate Faceting, Gem Appreciation, Glass Bead Making, Lost Wax Casting, Beginning Precious Metal Clay, Raku Pottery and Intermediate Wirecraft. In the September 13 to 19 sessions, we have openings in Lost Wax Casting, Faceting and Intarsia, Gem Appreciation, Precious Metal Clay, Level 2, Raku Pottery, Seed Beading, Ad-

vanced Silversmithing, Beginning Silversmithing, and Stained Glass.

Information and applications can be found in the Lodestar or at the web site:

www.amfed.org/sfms

You may also contact us at wwetzel@earthlink.net or at (864) 306-6749.

Thank you,
Bill and Kerri Wetzel
Wildacres Registrars

Quake in Alaska Changed Yellowstone Geysers Some Erupted More Often, Others Less Often After Big Jolt 2,000 Miles Distants

27 MAY 2004 PRESS RELEASE: LEE SIEGEL, SCIENCE NEWS SPECIALIST, UNIVERSITY OF UTAH: A powerful earthquake that rocked Alaska in 2002 not only triggered small earthquakes almost 2,000 miles away at Wyoming's Yellowstone National Park – as was reported at the time – but also changed the timing and behavior of some of Yellowstone's geysers and hot springs, a new study says.

"We did not expect to see these prolonged changes in the hydrothermal system," says University of Utah seismologist Robert B. Smith, a co-author of the study in the June issue of the journal Geology.

While other large quakes have been known to alter the activity of nearby geysers and hot springs, the Denali fault earthquake of Nov. 3, 2002, is the first known to have changed the behavior of such hydrothermal features at great distances, according to Smith and his colleagues. They say the magnitude-7.9 quake was one of the strongest of its type in North America in the past 150 years.

Smith conducted the study with Stephan Husen, a University of Utah adjunct assistant professor of geophysics who works at the Swiss Federal Institute of Technology; Ralph Taylor, an engineer who designs geyser monitoring equipment at Yellowstone National Park; and Henry Heasler, Yellowstone National Park's geologist.

Less than 18 hours after the Denali earthquake in Alaska, Smith and colleagues at the University of Utah Seismograph Stations reported the major jolt had triggered more than 200 small earthquakes in Yellowstone – something widely reported by news media in the days following the quake.

Smith now says the triggered quakes at Yellowstone numbered more than 1,000 within a week of the Denali quake – if the count includes tiny temblors that were not "located," meaning their epicenters and depths were not determined. He says the quakes ranged in magnitude from minus 0.5 to just under 3.0. (Tiny quakes have negative magnitudes because modern seismic equipment can detect quakes smaller than was possible when the logarithmic magnitude scales were devised.)

Most of the triggered quakes were centered near geysers and hot springs.

Strong Earthquakes as Seismic and Geothermal Triggers

Scientists once believed that an earthquake at one location could not trigger earthquakes at distant sites. That belief was shattered in 1992 when the magnitude-7.3 Landers earthquake in California's Mojave Desert triggered a swarm of quakes more than 800 miles away at Yellowstone, as well as other temblors near Mammoth Lakes, Calif., and Yucca Mountain, Nev.

The magnitude-7.5 Hebgen Lake, Mont., quake northwest of Yellowstone – a 1959 disaster that killed 28 people – triggered changes in Yellowstone's geysers and hot springs, something not unexpected for a strong quake nearby.

Smith believes the Denali fault ruptured in such a direction – from northwest to southeast – that the brunt of its energy and its powerful surface waves were aimed southeast toward Yellowstone. As a result, the stresses rippling through the ground at Yellowstone were 200 to 300 times greater than if the Denali quake's waves were aimed elsewhere, he says.

As the Denali quake's surface waves arrived at Yellowstone, changes in hydrothermal activity first were noted at the 100 Spring Plain hot spring system in Norris Geyser Basin.

"Several small hot springs, not known to have geysered before, suddenly surged into a heavy boil with eruptions as high as 1 meter [about 39 inches]," Smith and colleagues wrote in Geology. "The temperature at one of these springs increased rapidly from about 42 to 93 degrees Celsius [about 108 to 199 degrees Fahrenheit]" and became much less acidic than normal. "In the same area, another hot spring that was usually clear showed muddy, turbid water."

Meanwhile, some geysers erupted more frequently than normal, while others erupted less frequently.

Yellowstone has more than 10,000 geysers, hot springs and fumaroles (steam vents), and scientists monitored how often 22 of the geysers erupted during the winter of 2002-2003. Eight of the 22 "displayed notable changes in their eruption intervals" after the Denali quake, 10 showed no significant changes and the other four were too erratic in the timing of their eruptions to determine if the quake changed them, the researchers wrote. Of the eight that changed:

-- Geysers that erupted more frequently following the Denali quake included Daisy, Depression, Plume and Riverside geysers in Upper Geyser Basin, and Pink Geyser in Lower Geyser Basin.

-- Geysers that erupted less frequently after the Denali quake included Castle and Plate geysers in Upper Geyser Basin and Lone Pine Geyser in West Thumb Geyser Basin.

Most geysers returned to their normal timing days to months after the Denali quake.

Oddly, geysers affected by earlier nearby earthquakes – most notably Old Faithful and Grand Geyser in Upper Geyser Basin – were not affected by the Denali earthquake.

How the Denali Quake Sparked Yellowstone Activity

Scientists do not know if the strong surface waves from the Denali quake independently triggered Yellowstone's small quakes and changes in geyser activity. Smith suspects not. He believes the Denali quake's waves affected the geysers by changing water pressure in underground conduits or "pipes" that feed the geysers. Such changes – which in some cases would have made hot water "flash" explosively into steam – would have altered the pressure on adjacent faults, triggering small earthquakes nearby. That would explain why the quakes were clustered around geyser basins.

Why did some geysers erupt more often and others less often? The researchers believe that when the Denali quake waves rippled through Yellowstone, they jarred loose minerals that had sealed some underground hot water conduits.

In some cases, that allowed superheated, pressurized water to flow more freely to make geysers erupt more often. In other cases, the rupturing of subterranean mineral seals enlarged the size of the conduits supplying geysers, reducing water pressure so those geysers erupted less often. Smith speculates that yet other geysers remained unchanged because they did not have pent-up gas and water pressure and were not affected by the Denali quake's surface waves.

The Denali quake also generated noticeable water waves in Seattle's Lake Union, Louisiana's Lake Pontchartrain and in swimming pools on the East Coast. It also triggered small quakes in California's Geysers geothermal area, which is north of San Francisco, and in eastern California's Long Valley, which, like Yellowstone, is a caldera, or giant volcanic crater created by cataclysmic prehistoric volcanic eruptions.

The Denali quake also triggered a few small quakes in Utah, and Smith says it is possible some of those quakes occurred near little-known hot springs along the Wasatch fault at the base of the Wasatch Range.

Castle Geyser at Yellowstone National Park, Wyo., erupted less frequently after seismic waves from a powerful earthquake almost 2,000 miles away in Alaska rippled through Yellowstone in November 2002. Some geysers erupted more often, others less often in the wake of the magnitude 7.9 Denali fault earthquake.
Credit: Stephan Husen, University of Utah

Internet Web Page: http://www.mtgms.org

Smith says the fact that the Denali quake triggered geyser and hot springs changes at Yellowstone raises an interesting question: "Could large earthquakes closer to Yellowstone trigger hydrothermal explosions?"

Such steam-and-hot water explosions in prehistoric times blasted out a hole that now is Mary's Bay on Yellowstone Lake. One such explosion has occurred roughly every 1,000 years since the glaciers receded from Yellowstone roughly 14,000 years ago.

Smith says there is no evidence prehistoric quakes triggered those blasts. And such explosions were not triggered by the magnitude-7.5 Hebgen Lake, Mont., quake in 1959 or the magnitude-7.3 Borah Peak, Idaho, quake in 1983.

Nevertheless, a big quake near Yellowstone with its surface waves aimed the right way conceivably might "cause large hydrothermal eruptions," says Smith. "I would hypothesize that is certainly possible."

Reference: Lee Siegel, Science News Specialist, University of Utah Public Relations; Quake in Alaska Changed Yellowstone Geysers; Public Release; University of Utah Public Relations, 201 S. Presidents Circle, Salt Lake City, Utah; www.utah.edu/unews; 27 May 2004.

Swap and Shop

For Sale: Now available for sale! Large garage stuffed full of 35 yrs of rock collecting. Large selection of yard rocks still available priced by the pound. Petrified wood and quartz $1/lb, other rocks $.50/lb. Call Francis Mangrum to setup a time to visit (615) 228-8577.

For Sale: Rough Rock $1.00/lb - 100 lbs. for $85.00. Your pick, Jasper, Agates, Tampa Bay Coral, etc. June Miller (931) 598-9740.

For Sale: Bargains Galore! Equipment & supplies at close-out prices. Come or call George Jones, 5025 Franklin Rd., Nashville, TN (615) 333-3781 email: georgejones@comcast.net

Swap and Shop is for members and friends to advertise goods and services for sale or swap & want ads.

Next Murf Meeting:
July 15th
7:30 pm
Bill Buckner
The rock that floats

Next Don Meeting:
June 18th, 3 pm

Next Tull Meeting:
Aug 9th, 7 pm

To:

Forwarding and Address Correction Requested

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