

The Lake George Gem and Mineral Club -

Club Monthly Meeting, February 14, 2015



*Regular Meeting of the Lake George Gem & Mineral Club
Saturday, **February 14**, at 10:00AM
Lake George Community Center*

After the Saturday 10am Club Business meeting,
LGGMC member **Steve Woje** will present a program titled
***“Do-It-Yourself Ultraviolet Lamps
for Fluorescent Rocks”***

- Do you collect or would you like to collect fluorescent minerals but are put off by the high cost of ultraviolet lamps needed to make them glow?

Steve will share how, with a little eBay savvy and do-it-yourself elbow grease, you can build a powerful long, medium, or short-wave UV lamp to make your rocks “pop”, at a fraction of the cost of commercially made lamps.

- Bring one or two of your favorite *fluorescent* samples to the meeting and see how they shine!

Dues are Due!see membership Application at the end of this Newsletter.

Coming Events

Arizona Mineral & Fossil Show, various venues, in Tucson, Jan. 31-Feb. 14.

“Science and Nature Writing”, class by **Steve Veatch**, Feb. 21, 9:00-1:15, Western Museum of Science & Industry, Colorado Springs. Registration and fee required (\$5 off for LGGMC members); register at 719-488-0880.

Denver Gem & Mineral Guild Jewelry, Gem & Mineral Show, Feb. 27-March 1, Jefferson Co. Fairgrounds, 15200 W. 6th Ave., Golden.

“Fossils and Flight”, Western Interior Paleontology Society Founders’ Symposium, March 14-15. Fee required. Go to westernpaleo.org for info.

Fort Collins Rockhounds 54th Annual Gem & Mineral Show, March 27-29, McKee 4-H Building, Larimer Co. Fairgrounds. Go to www.fortcollinsrockhounds.org for information.

LGGMC Annual Gem & Mineral Show, Aug. 20-23, in the field next to the Lake George Post Office. Free Admission.

The following clubs meet regularly and welcome visitors. Go to their websites for more information.

Cañon City Geology Club, second Monday of each month; 6:00, First Methodist Church Fellowship Hall, 9th St. and Main, C.C.

Colorado Springs Mineralogical Society, third Thursday of each month; 6:30, Colorado Springs Senior Center, 1514 N. Hancock, C.S.

Columbine Gem & Mineral Society, second Thursday of each month; 6:30, Shavano Manor, 525 W. 16th (at J St.), Salioda.

Pueblo Rockhounds, third Thursday of each month, 7:30, Westminster Presbyterian Church, 10 University Circle, Pueblo.

Club News

Please Welcome the Following New Members

Robert Acker (Evergreen)
Laura Canini (Colorado Springs)
Mary Rose Doucett (Penrose)
Dwain Dunigan (Penrose)
Susan Freeman (Colorado Springs)
Alen and Linda Janus (Bethel Park, PA)
Carol Kinate (Colorado Springs)
Randoll & Laura Kokkinen (Littleton)
Mary Lou Mobley (Golden)
John Rummans (Golden)
Bob & Sandy Snively (Florissant)
Stephen & Dee Strube (Woodland Park)

▶▶ At the December meeting, the following officers *and committee chairs* were elected for 2014:

Officers:

President: **John Rakowski**
Vice President: **Char DeVries**
Treasurer: **Suzanne Core**
Secretary: **Norma Engelberg**
Newsletter Editor: **Bob Carnein**

Directors:

*Annual Show Chair: **Rebecca Blair***
*Field-Trip Coordinator: **Todd Mattson***
*Pebble Pups Coordinator: **Steve Veatch***
*Webmaster: **Dan Alfrey***

▶▶ Members of the Scholarship Committee are in the process of revising guidelines for the Club's annual geology scholarship. Offered to a graduating high school student in Teller or Park County, the competitive scholarship is awarded each spring, and, in the past, provided \$500 for educational expenses. We expect some suggested changes ready for consideration soon.

▶▶ The **Greater Denver Area Gem and Mineral Council** has announced awarding a grant of \$3,858.83 to the **Pikes Peak Historical Society** for new lighting of geologic specimens in the PPHS Museum, in Florissant. *Congratulations to the PPHS!*

▶▶ A new book, "*The Collector's Guide to Herkimer Diamonds*", by Michael R. Walter, is available from Schiffer Publishing Co., softbound, at a price of \$19.95.

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▶▶ **Bob Carnein's** "Physical Properties" free class at the Woodland Park Library on Sat., Jan. 31st, attracted 31 people, including 8 Pebble Pups/Earth-Science Scholars. **Thank-You BOB !!!**



(Dan Alfrey photos)

▶▶ To see a video about the Denver Guild's upcoming (Feb. 27-March 1) Gem & Mineral Show, go to <http://youtu.be/hzYM1oPrpGY>.

▶▶ Friends of the Colorado School of Mines Geology Museum will kick off a monthly lecture series, the first Thursday of each month, with **Ed Raines**, "Creede: A Caldera Full of Silver" on Feb. 5 at 7PM in the CSM Museum Conference Room (Rm. 201). Everyone is welcome.

▶▶ The new series of "**Prospectors**" shows are now on the Weather Channel on Sunday evenings at 7PM, and Club members are welcome to gather at **Denny's** in Woodland Park to toast our prospectors.

Earth-Science Scholars/Pebble Pups Corner

Here's the schedule for this year's remaining Pebble Pups/Earth-Science Scholars classes and activities:

Feb. Family Geology Day

Giants of the Ice Age

March Exploring Caves: How Caves are Formed (**Blake Reher**)

Field Trip: Cave of the Winds (**Steve Veatch**)

April: National Poetry Month

Earth-Science Scholars and Pebble Pups meet from September through May on the third (3rd) Tuesday of each month at 6-PM in the Pikes Peak Historical Museum (in Florissant). Be sure you check regularly at www.LGGMClub.org for details and updates, or contact Steve Veatch at steven.veatch@gmail.com.

Remember, new students and their parents are always welcome; -and- Earth-Science Scholars and Pebble Pups are welcome on LGGM Club field trips.



The Pulver Gulch Prospect: A Hidden Reserve of Metamorphic Minerals by **Steven Veatch**

As U.S. Highway 24 approaches Wilkerson Pass, Colorado, the 1.7 billion-year-old metamorphic rocks of the Puma Hills replace the younger Silver Plume and Pikes Peak granites. The Puma Hills were formed by the metamorphism of sedimentary and volcanoclastic rocks that were once deposited in the ocean—sand, mud, clay, and volcanic rocks. Before the highway reaches the summit of Wilkerson Pass, it goes past the dirt road to the M Lazy C ranch. The ranch road heads north into the hills, where forest road 247 soon intersects the winding ranch road, and, at this junction, forest road 247 bears east into the deep forest, past the old Pulver Gulch prospect.

The geology at Pulver Gulch is unlike that of the surrounding area. The source rocks at Pulver Gulch contained more calcium carbonate, from impure and muddy limestones, than the surrounding ocean sediments that formed most of the Puma Hills. These calcareous sediments were heated, compressed, and transformed into calcium silicate rocks that host a group of interesting metamorphic minerals that include scheelite, vesuvianite, wollastonite, grossular garnet, and diopside. The Pulver Gulch prospect's exploratory dump is an excellent place to search for these metamorphic minerals.

Prospectors worked the Pulver Gulch prospect over fifty years ago looking for scheelite (figure 1), a mineral that formed in the metamorphic rocks at the site. Scheelite is an important source of tungsten. Tungsten has many industrial applications, including steel alloys and filaments in light bulbs. Since scheelite is strongly fluorescent in short-wave ultraviolet light, prospectors searched the area with battery powered blacklights at night.



Figure 1. Scheelite crystals and muscovite mica showing fluorescence under ultraviolet radiation. Image courtesy of Commons Wikimedia: image released to public domain.

Brilliant brown granular crystals of vesuvianite (figure 2), a basic calcium magnesium silicate mineral, are common here. Short prismatic crystals can also be found. This mineral was named for Mt. Vesuvius, where it was discovered on the slopes of the Italian volcano.



Figure 2. Vesuvianite crystal. Image courtesy of the CSMS blog by Mike Nelson.

Wollastonite (figure 3), a calcium silicate, occurs as milky-green masses of needle-like crystals at this site. Some of the massive specimens are larger than a football. This mineral is faintly fluorescent. Wollastonite is used as a component in refractory or heat resistant ceramics and as a filler for paint.



Figure 3. Wollastonite with diopside (green), garnet (red) and vesuvianite (dark brown) from the Stanislaw mine near Szklarska Poreba, Izerskie Mountains, Lower Silesia, Poland. Image courtesy of Wikipedia.

Thick, banded layers of brown grossular (figure 4), a member of the garnet group, are associated with wollastonite at the Pulver Gulch prospect. These garnets also formed from the impure limestones and occur here in a massive and granular form.



Figure 4. Grossular garnet.

By breaking open the host rocks on the Pulver Gulch dump, well-developed microcrystals of dark green diopside (figure 5) are exposed. The diopside crystals, a calcium magnesium silicate, are embedded in sparkling white calcium silicate rocks. These specimens of diopside can be interesting to micromount collectors.



Figure 5. Diopside crystal.

Today the Pulver Gulch dump is largely undisturbed. Occasionally a small group of geology students from Colorado College will stop by the dig site to study the local geology in this peaceful part of the Puma Hills.

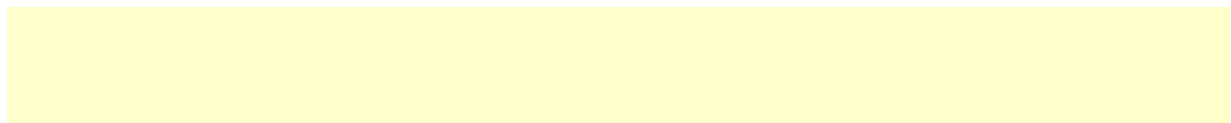
References:

Chesterman, C., 1978, *The Audubon Society Field Guide to North American Rocks and Minerals*, Alfred A. Knopf, New York.

Chronic, H., 1980, *Roadside Geology of Colorado*, Mountain Press Publishing Co, Missoula.

Mineral Galleries, World Wide Web homepage URL:
<http://mineral.galleries.com/minerals/silicate/vesuvian/vesuvian.htm>

Wobus, R.A., 1997 (Williams College) personal communication.



MEMBERSHIP APPLICATION



Lake George Gem & Mineral Club

Box 171, Lake George, Colorado 80827

www.LGGMclub.org

Date: _____ / _____ /20_____

Name _____

Address _____ City _____ State _____ Zip _____

Telephone (_____) _____ - _____ E-mail _____
(email Required to receive Newsletter and Field Trip info.)

Names/Ages of family members (if family membership): _____

Dues for Jan. 1 through Dec. 31 each year are as follows:

_____ Individual (18 and over) \$15.00
_____ Family (includes dependents under age 18) \$25.00

Due are Due after January 1st. Members w/ unpaid dues by March 31st will be deleted on April 1st.
On/after **August 31**, dues will be *pro-rated by one-half* for **NEW members only**.

✓ *I agree to Abide by Club Constitution, By-Laws, and Rules regarding Field Trips & Club Claim visits:*

✓ **Signed** _____ **Date:** _____ / _____ / _____

☒ I am *or have previously been* a member of Lake George Gem & Mineral Club. Yes _____ No _____

☒ **My interest areas** include (check all that apply): Minerals _____ Fossils _____ Lapidary _____
Micromounts _____ Colorado Geology _____ Pebble Pups (ages 7-17) _____ Mining History _____
Crystallography _____ Other (*be specific*): _____

☒ I am willing to give a talk/presentation to [the Club] or [Pebble Pups] on _____ (topic)
and/or Lead Field Trip(s) to _____

☒ I am willing to participate/help in the following ways (*can choose more than one*): Club Officer _____
News Writer-Contributor _____ Annual Show Committee _____ Nominating Committee _____
Winter Programs _____ Field Trips _____ Membership Coordinator _____ Scholarship/Education
Committee _____ Pebble Pups _____ Other (*be specific*): _____

Questions about the Club or Activities? Please visit the website *or* contact a Club Officer. Updated 2/4/2015

Lake George Gem and Mineral Club

February, 2015

Lake George Gem and Mineral Club

P.O. Box 171
Lake George, CO 80827
www.LGGMclub.org

The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geography and history of the Pikes Peak/South Park area, Indian artifacts and the great outdoors. The club's informational programs and field trips provide an opportunity to learn about earth sciences, rocks and minerals, lapidary work and jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The club meets the second Saturday of each month at the Lake George Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter we meet at 10:00 AM.** (From April through October, we meet at 9:00 AM, to allow more time for our field trips.)

Our organization is incorporated under Colorado law as a *nonprofit educational organization*, and is a member of the Colorado, Rocky Mountain and American Federations of Mineralogical Societies. We also sponsor an annual Gem and Mineral show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (Parents plus dependents under age 18).

Our Officers for 2015 are:

John Rakowski, President

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Suzanne Core, Treasurer

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