The Lake George Gem and Mineral Club -

Club Monthly Meeting,
August, 2014

Regular Meeting of the Lake George Gem & Mineral Club
Saturday, August 9, at 9:00AM
Lake George Community Center

After a short business meeting, members will adjourn to the show site, next to the Post Office in Lake George, to set up the spaces and parking for the ***Lake George Gem & Mineral Show****. After the set-up, the Club will provide pizza and soft drinks at Lake George Café and Pizzaria.*

Coming Events

Contin-Tail Gem, Mineral & Fossil Show, Buena Vista Rodeo Grounds (free)	**… August 7-10**
Dinosaur Discovery Day—Reptile and Birds Day (free), 10AM-2PM, Dinosaur Ridge, Morrison.	**… August 9**
Columbine Gem & Mineral Society, Monthly meeting, 6:30PM, Mt. Shavano Manor, 525 W. 16th (at J St.), Salida.	**… August 14**
Lake George Gem & Mineral Club Annual Gem, Mineral & Fossil Show, in the field next to the Lake George Post Office	**… August 14-17**
Hike to Harmonica Arch (in the Lost Creek Wilderness) with USGS geologist Pete Modreski. (contact Pete at pmodreski@usgs.gov for info)	**… August 17**
Pueblo Rockhounds, Monthly meeting, 7:30PM, Westminster Presbyterian Church, 10 University Circle, Pueblo.	**… August 21**
Colorado Springs Mineralogical Society, Monthly meeting, 6:30PM, Colorado Springs Senior Center, 1514 N. Hancock, Colorado Springs.	**… August 21**
"World's Greatest Gold Camp Days", Cripple Creek District Museum and Cripple Creek Heritage Center, various activities; call 689-9540 for information.	**… August 30**
Denver Mineral Show Events:	
Denver Fine Mineral Show (Denver Marriott W., 1717 Denver West Blvd., Golden	**… Sept. 6-9**
Denver Coliseum Mineral & Fossil Show	**… Sept. 6-14**
Colorado Mineral & Fossil Show (Ramada Plaza Motel)	**… Sept. 7-14**
Denver Gem & Mineral Show (Denver Mart; admission charge)	**… Sept. 12-14**

Club News
Welcome New Members:

Renee & Eddie Bartnick
Tim & Connie Bundrick

Katherine Honda
Lisa & Dylan Kinder
Tomi Michaels
Ralph Palmer
Shane & Rebecca Patton
Linda Robinson
Doreen Schmidt

Cindy Smith, of the Canon City club, sent this announcement about an upcoming program:
Dinosaur Discoveries
Tues, Aug 12
Salida Middle School gymnasium, 4 until 5:30 pm

GARNA has invited experiential educator John Hankla to bring a few cast dinosaur skeletons to Salida and present a program about recent discoveries in Utah. Attendees will get up-close and see the "murderous monster" *Teratophoneus* and the bizarre *Cosmosceratops*. John will present a slideshow that will share the importance of these new dinosaurs being discovered at the Grand Staircase National Monument in southern Utah. In September, John will be joining the team from the Denver Museum of Nature and Science on an important dig.

John Hankla works with natural history museums to create remarkable exhibits and experiences in galleries, online and in the field. He directs immersive courses and tours to dinosaur dig sites in remote Wyoming with his organization, Dinosaur Discovery Adventures. He is currently working with the Dinosaurs of the Lost World exhibit at the Cranbrook Institute of Science in Michigan where he serves as a lecturer and adjunct curator of natural history exhibits. John uses his expertise along with an extensive personal collection of cast dinosaur skeletons to create learning opportunities in natural history museums, art galleries and school programs; this event is designed for all ages.

Cost: $5 for GARNA members for $8 for non-members and children five and under are free. Tickets are limited and available online below or if seats are still available, they will be sold at the door. For questions, please contact GARNA at 539-5106.

On July , the historic Miners Union Hall in Victor, was seriously damaged by fire. The Southern Teller Co. Focus Group is holding a fund-raiser to collect $1 million for repairs. To donate, https://www.crowdrise.com/victorMUH/ or http://www.victorcolorado.com/stcfg.htm.

Florissant Fossil Beds National Monument announces more astronomy programs for this summer:

Astronomy Programs

Join Ranger Leo Sack and see the night sky the way it used to look before city lights crowded out the stars. Florissant Fossil Beds National Monument offers an ideal balance between convenient location – an easy drive from Colorado Springs– and a sky dark enough to reveal the countless stars that once lit the night for our ancestors.

Friday, August 22, 2104 – 8:00PM – 10:00PM

Friday, September 12, 2014 – 7:30PM – 9:30 PM

Andy Weinzapfel sent out copies of his article from the August issue of Rock and Gem Magazine, about the Pikes Peak Historical Society mineral collection. We hope to set up a link to the article on our website.

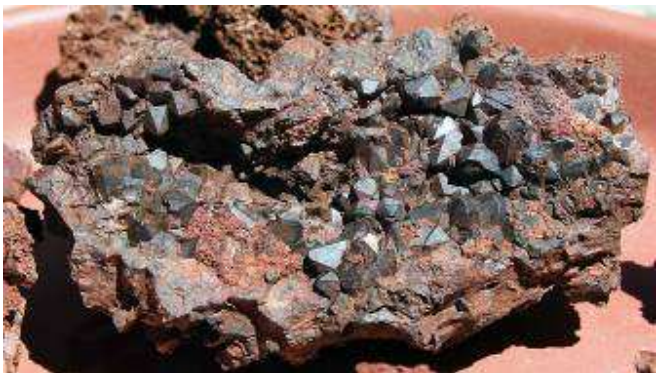
Field-trip coordinator **Todd Mattson** has been working hard to fill up this spring/summer's trip schedule. The following trip is now firmed up:

August 16: Topaz Mountain gem mine (fee dig; **Joe and Krystal Dorris**).

Information for this trip will be on the Club's website: www.lggmclub.org .

The Canon City club is involved in a remediation at the New Hope amethyst claim. Our officers are considering whether we can make them a loan to help with the clean-up (apparently, the money will be re-paid). The New Hope claim is a favorite collecting site for our members.

Speaking of the New Hope, **Dave Alexander** send some photos of finds he made on last year's trip:

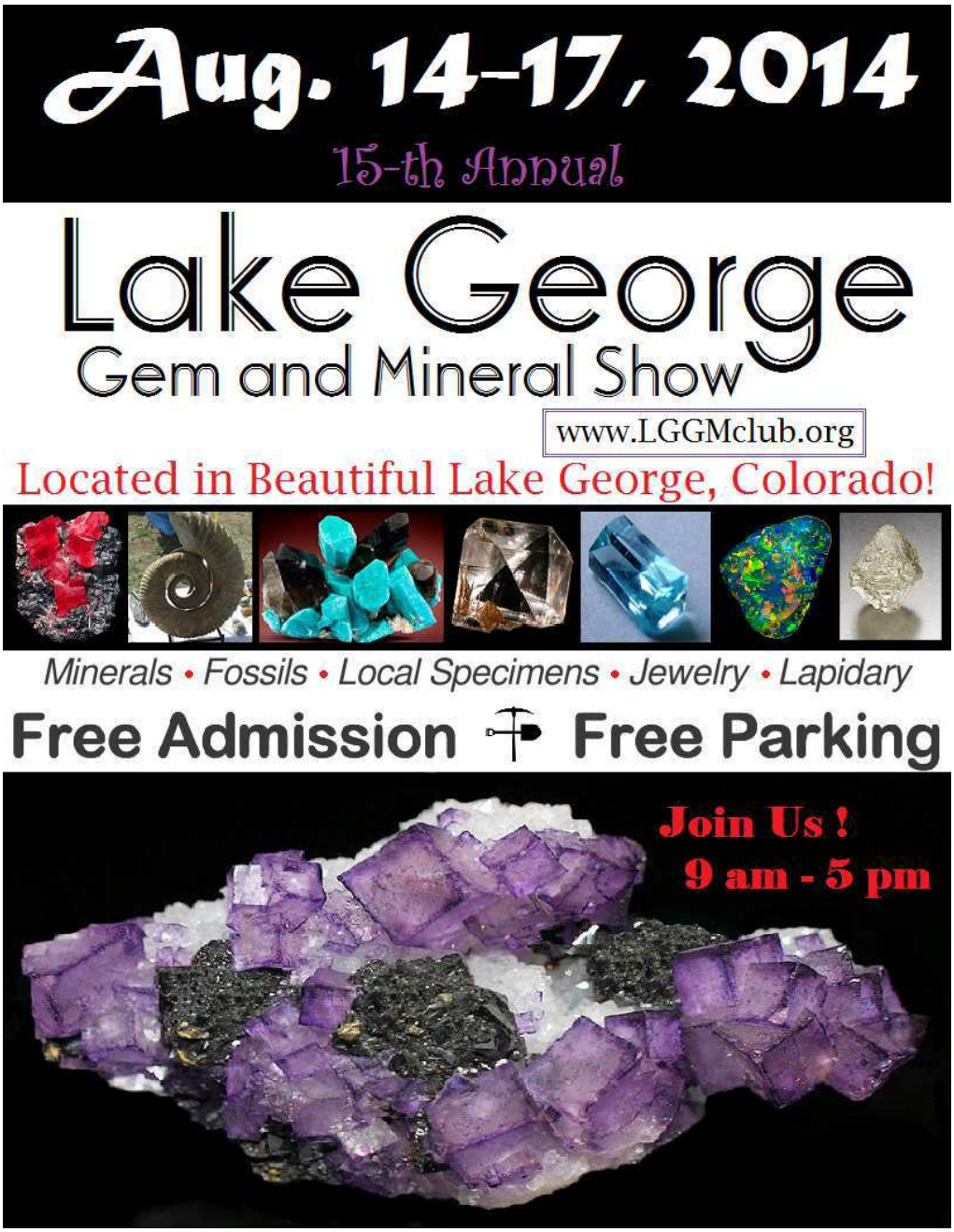


- **Richard Kawamoto** sent some photos of the recent field trip to the Petra Placer:




- The leadership group is in the process of working on a Club T-shirt. *More to come*.

www.LGGMclub.org



- Lake George Gem & Mineral Club officers and committee chairs for 2014:

President: **Suz Core (**suzc@peakinet.net)
Vice President: **Jo Beckwith (**shawneewolf@hotmail.com)
Treasurer: **Wayne Johnston** (wjohnston719@q.com)
Secretary: **Norma Engelberg** (njengel60@gmail.com)
Newsletter Editor: **Bob Carnein** (ccarnein@gmail.com)
Membership/Badges: **Jerolynn Kawamoto** (Jerrolynn@wildblue.net)
Field-Trip Coordinator: **Todd Mattson** (busman842@q.com)
Webmaster and 2014 Show Chair: **Dan Alfrey** AlfreyDan@aol.com)
Pebble Pups Coordinator: **Steve Veatch** (sgeoveatch@att.net)

Pete Modreski sent this notice about an upcoming Friends of Mineralogy event:
Sep. 5-7, San Juan Mountains Mineral Symposium, Ouray CO; lectures and field trips; sponsored by Friends of Mineralogy and the Friends of the Colorado School of Mines Geology Museum. Lectures, guided and self-guided field trips, banquet with speaker, Friday evening icebreaker. For more information see the attached flier, or see http://friendsofmineralogycolorado.org/ and on facebook at https://www.facebook.com/pages/Ouray-Silverton-San-Juan-Mountains-Mineral-Symposium/224883727702374?ref=br_tf .

Earth-Science Scholars/Pebble Pups Corner

Steve Veatch sent this report about Pebble Pups working at the Cripple Creek District Museum:

PEBBLE PUPS CONSERVE CRIPPLE CREEK'S MINERAL COLLECTION
By Steven Wade Veatch

The Pikes Peak Pebble Pups are taking turns this year to work on the mineral collection displayed at the Cripple Creek District Museum. The museum is located in Cripple Creek, Colorado on 5th and Bennett Avenue in what was the Midland Railroad depot.

The mineral and rock collection is from the historic mines of the Cripple Creek and Victor Gold Mining District. Gold tellurides make up the majority of the collection. Pebble pups take turns working a shift with three scientists where they learn the procedures involved with conserving and cataloging this remarkable collection. The pebble pups learn and then perform a number of steps while working at the museum. First, the specimen is imaged in a photography light tent. The specimen is then examined with a microscope. During this examination Dr. Bob Carnein describes the specimen. A museum technician types Dr. Carnein's description in a computer. John Rakowski, a geologist, also writes the description in a lab notebook. Next measurements (in the metric system) are taken and recorded.

The second step it to brush a strip of archival white paint on the specimen; after the paint dries an archival pen is used to write a unique catalog number directly on the paint strip. Steven Veatch, the project leader at the museum and the pebble pup leader, creates in the final step a photomicrograph—or an image with a microscope—of the specimen. The pebble pups, who range in age from 10 to 16 years old, work on all steps of the cataloging and conservation effort. The pebble pups, at the end of their work, receive a certificate of training from Kathy Reynolds, the museum director.

The Pikes Peak Pebble Pup program (PPPP) includes students K-12 who explore the geosciences in the Pikes Peak region of Colorado. The program participates with the Future Rockhounds of America under the American Federation of Mineralogical Societies. The PPPP is composed of the youth of the Lake George Gem and Mineral Club (Teller County), and the Colorado Springs Mineralogical Society (El Paso County). A number of students from the United Kingdom participate in the program through the Internet. The goal of the program is to teach pebble pups to become rockhounds. Teen members of the group are called earth science scholars. The program focuses on communication, collaboration, creativity, and critical thinking. Communication is achieved through a blog site (http://pebblepups.blogspot.com/) where merit badge assignments, lessons, and pebble pup written work or art work is posted. The PPPP use Facebook™ as a method of communication within the group. Collaboration is through local and regional museums, the Florissant Fossil Beds National Monument, the Science Olympiad, and Cool Science.

Accomplishments of the PPPP include first place and third place awards in the National Park Service's art contest for National Fossil Day; monthly articles published in the *Ute Country News*; and researched articles are published in an international magazine. Two pebble pups entered a poetry contest sponsored by the Library of Congress: one pebble pup was a finalist in the nation and received a medal from the U.S. Poet Laureate while another pebble pup won first place in Colorado. A book of collected poems on geoscience by the PPPP has been published with all of the books sold within weeks. A teen PPPP presented a paper at an Ice Age symposium last year at the Colorado School of Mines campus. Several PPPP were coauthors on papers presented at the University of Denver and the New Mexico Institute of Mining and Technology in Socorro, New Mexico.

The pebble pups meet monthly during the academic school year. As there are so many ways for the PPPP to express their creative energies; the retention rate is very high. The informal setting allows for

a more complete understanding of geoscience due to a more focused learning environment. The informal setting also allows for more personal and meaningful interaction between the informal educator and student. Students engaged in informal education are benefited on a personal level more than they would be in a formal setting. The informal education of the PPPP has proven to be more supportive to the development and growth of a student both intellectually and emotionally compared to education in a strictly controlled, formal learning environment. For more information on the PPPP contact Steven Veatch through his email at: steven.veatch@gmail.com.

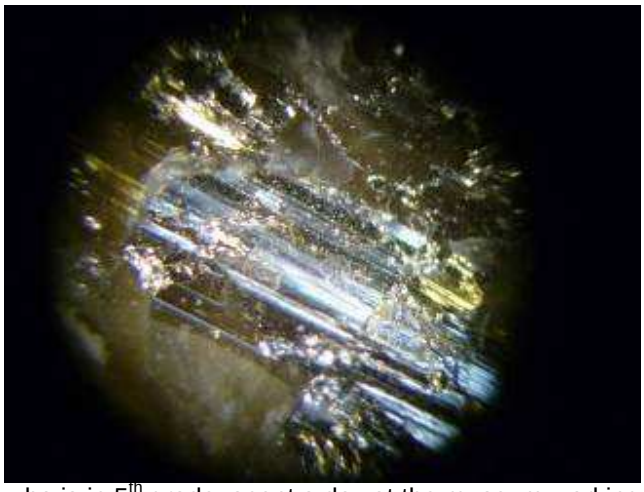


Photo number 1 caption: Ben Nemo, who is in 5th grade, spent a day at the museum working on conserving one of Colorado's most important mineral collections. Photo credit: Steven Veatch.

Photo number 2 credit: A microphotograph of a crystal of gold-bearing calaverite. Note the distinctive striations on the surface of the mineral. Photo credit: Steven Marquez.

Earth-Science Scholars and Pebble Pups meet **from September through May** on the **third Tuesday of each month at 6PM in the Lake George Community Center**. Be sure you check regularly at www.LGGMClub.org for details and updates, or contact **Steve Veatch** at steven.veatch@gmail.com.

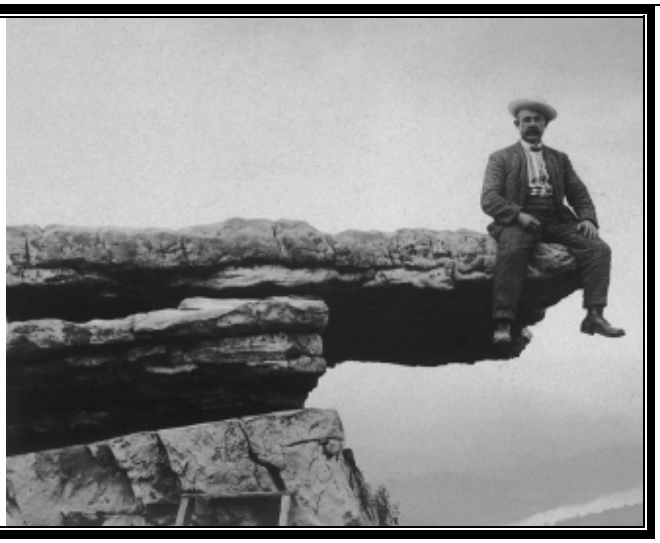
Remember, new students and their parents are always welcome; Earth-Science Scholars and Pebble Pups are welcome on LGGM Club field trips.

Notes from the Editor

Bob Carnein, Editor

ccarnein@gmail.com

719-687-2739



Some Minerals of the St. Peters Dome Area, El Paso County, Colorado

by Bob Carnein

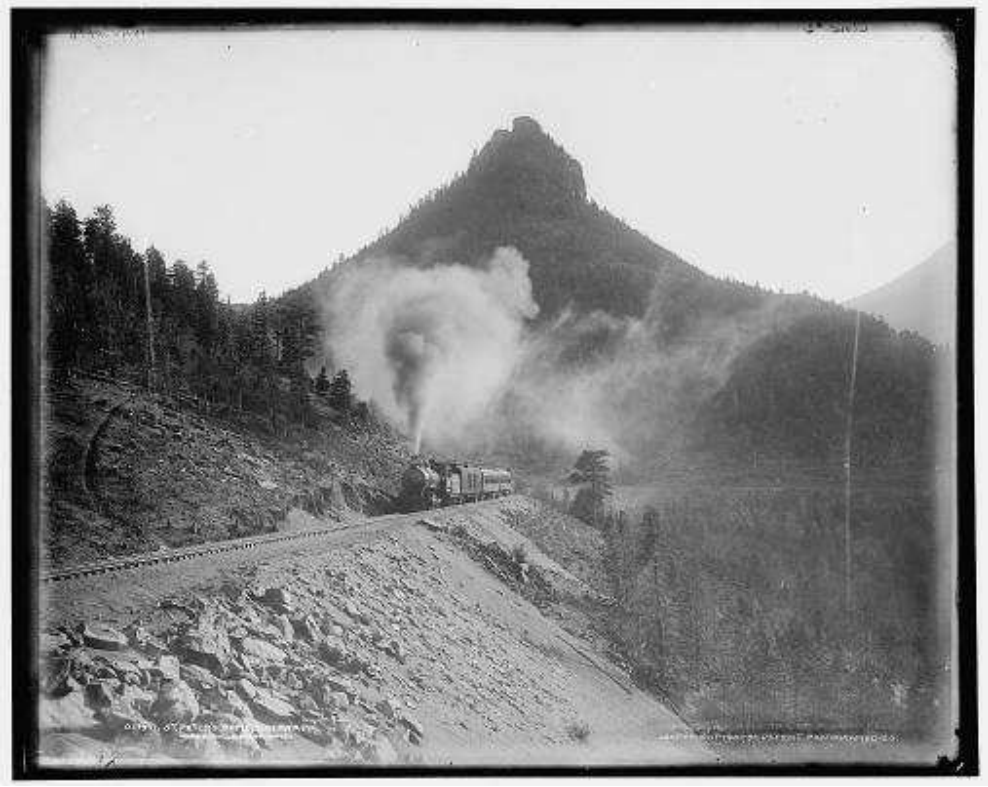


Figure 1. St. Peters Dome and the Cripple Creek Short Line (disc.yourwebapps.com)

Introduction Several LGGMClub members have been scouting out locations near St. Peters Dome, in El Paso County, for a Club field trip. Access to the area is relatively simple, via the "Old Stage Road" from the Broadmore in Colorado Springs, and the eastern end of the Gold Camp Road (Figure 2). Complicating the process, though, is the fact that this part of the Gold Camp Road has been closed to cars since 1988 (or 1991, depending on the author), due to safety concerns. (It follows the route of the old Short Line to Cripple Creek, and one of its several tunnels, near Helen Hunt Falls, is partly collapsed.) A locked gate near its intersection with the Old Stage Road means that this part of the Gold Camp Road normally is accessible only to hikers and bikers. The distance from the gate to some famous, interesting collecting areas is a long hike, but, thanks to a Club member, we were given access by the Forest Service and went in by car.

History The St. Peters Dome mining district (formally known as the Cheyenne district) is located in sec. 17, T15S, R67W, in the northeast part of the Mount Big Chief 7.5-minute topographic quadrangle (Eckel, 1997). Mineral localities also extend into the southeast part of the adjacent Manitou Springs quadrangle. The discovery of rare minerals there dates to as early as 1877 (Gross and Heinrich, 1966). Bastnaesite,

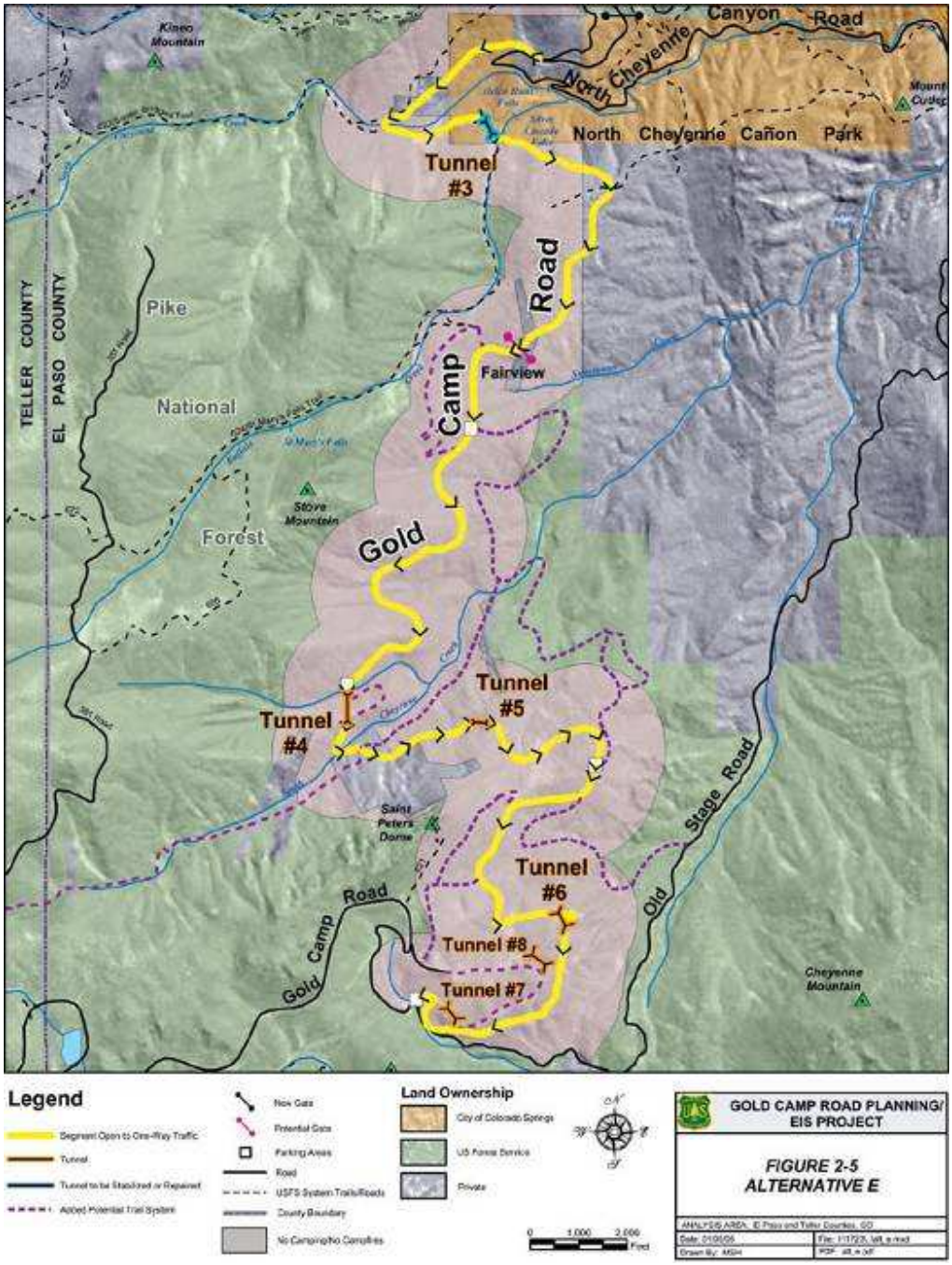


Figure 2. Map showing area described in this article. (www.westsidepioneer.com)

fluocerite, cryolite, pachnolite, and prosopite were reported between 1880 and 1899. The district also includes the type localities of 3 rare minerals: elpasolite, genthelvite, and murataite (www.mindat.org, accessed July 30, 2014).

Significant fluorite deposits were discovered near Duffields in 1901, and sporadic fluorite production dates to as early as 1910-11, at the Duffields deposit (aka Hugh Boss claim) (www.westernmininghistory.com, accessed July 30, 2014). Kramer Mines, Inc., reopened the Duffields deposit (renamed the Leyte open pit) along with the nearby Timberline and Mattie B mines in 1944-45. During this time, Kramer produced an estimated 7000 short tons of

"fluorspar" from the Leyte open pit, 8500 short tons from the Timberline, and 600 short tons from the Mattie B. (Beth Simmons produced an excellent guidebook for these and other fluorite deposits as part of the Florissant Scientific Society's "First Fluorite Fling" field trip on July 26, 2009. T.A. Stevens (1949) described the geology of fluorite deposits of the Cheyenne district in detail.) Small amounts of lead, zinc, gold, and silver reportedly were recovered as by-products (westernmininghistory.com, accessed July 30, 2014). Members of the Lake George Gem & Mineral Club visited the Leyte open pit with Paul Combs in 2013.

To mineral collectors, the most famous mine in the district is the Eureka Tunnel, opened in 1881. Extending horizontally about 100 feet into a steep hillside several hundred feet below the Gold Camp Road, the mine follows a pegmatite dike intruding the Pikes Peak Granite (see below) (Gross and Heinrich, 1996). Although mineralogists are most interested in the 8 or 9 fluorine minerals found there, it isn't clear why the mine was developed in the first place. A clue may be the presence of the rare aluminum fluoride cryolite. Although we take aluminum for granted today, metallurgists in 1881 couldn't remove the metal from refractory bauxite ore without cryolite, which occurs in quantity mainly in Greenland. Until the late 19th century, aluminum was mainly used for making jewelry and luxury items—it was comparable with silver in cost. That may explain the effort expended in developing the Eureka tunnel. Nowadays, synthetic cryolite is used in aluminum manufacture.

Figure 3. Cryolite, with siderite, from Ivigtut, Greenland. (Carnein collection and photo)

<u>Geology and Minerals</u> The Cheyenne district occupies a part of the Pikes Peak batholith (Figure 4). Here, a late alkalic granite stock, the Mt. Rosa pluton, intrudes the more normal calc-alkalic granite and fayalite granite of the batholith. (Fayalite granite contains an iron-rich member of the olivine series; unlike "normal" Pikes Peak Granite, the rock has a gray green color and doesn't weather to form the red, gravelly grus seen in the Florissant and Lake George areas.)

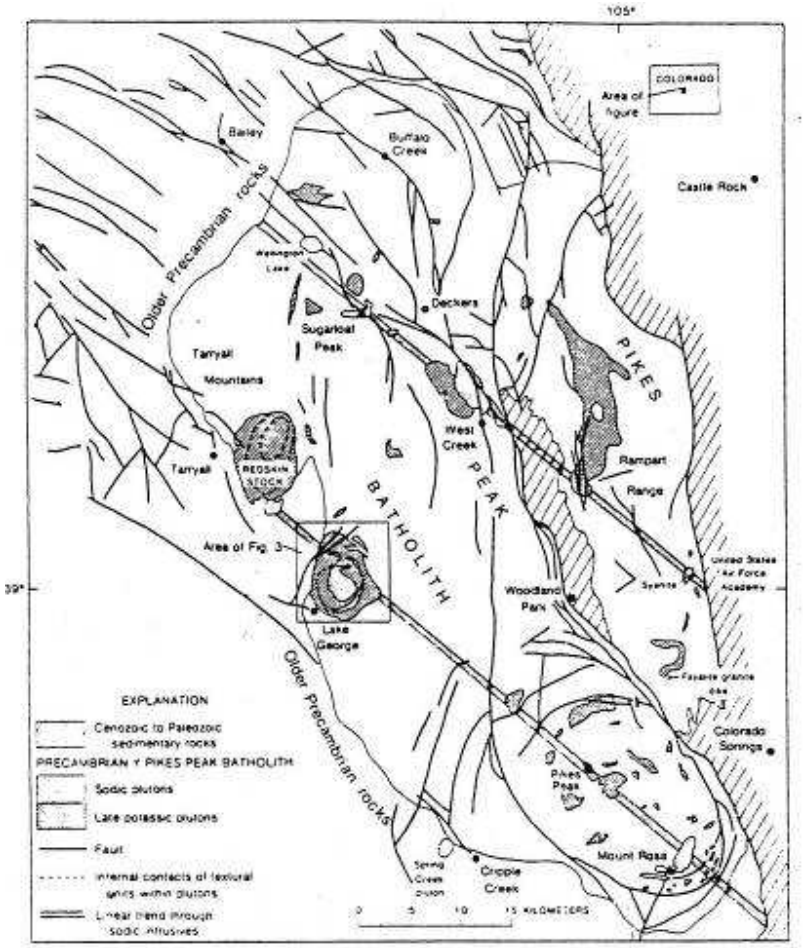


Figure 4. Map showing extent of the Pikes Peak batholith; Mt. Rosa is at the southern end of the batholith. (Barker, *et al.*, 1976)

The Mt. Rosa granite is characterized by the presence of the bluish black amphibole *riebeckite* (Figure 5), while "normal" Pikes Peak Granite contains hornblende and/or biotite. Many of the interesting minerals of the Cheyenne district occur in pegmatites that came from the Mt. Rosa pluton, intruding both the Mt. Rosa granite and the Pikes Peak granite and fayalite granite.

Famed mineral collector Ed Over found more than 1000 pegmatite veins, dikes, and pockets in the slopes surrounding St. Peters Dome (Pearl, 1972). Both Mt. Rosa and Pikes Peak pegmatites occur in the area. According to Gross and Heinrich (1966), the Mt. Rosa pegmatites can be distinguished from those of the typical Pikes Peak Granite in several ways:
(1) They have more complex and varied mineralogy;
(2) They are larger and generally lack "pockets" or miarolitic cavities;
(3) They generally are not clearly zones;
(4) They commonly contain abundant zircon, as well as riebeckite and the relatively rare minerals astrophyllite, thorite, and bastnaesite. (See Figures 5, 6, 7)

Figure 5. Riebeckite in Mt. Rosa pegmatite.

Figure 6. Astrophyllite. (Carnein collection & photos)

Figure 7. Typical zircon crystals from the St. Peters Dome area. (Carnein photos and collection)

Mt. Rosa pegmatites are concentrated in 2 areas. The first is about 1 mile north of Rosemont, the half-way point on the Cripple Creek Short Line. The second is about 2 miles east-northeast of Mt. Rosa. This second area is the Cheyenne (St. Peters Dome) mining district—the source of many of the rare minerals of collector interest, including those of the Eureka Tunnel (Fig. 2).

Mt. Rosa pegmatite bodies intrude the Mt. Rosa granite, as well as the "typical" granite and fayalite granite of the Pikes Peak batholith. They often occur at the boundaries separating these three facies. On average, the pegmatite bodies trend north-northeast and dip less than 30 degrees to the southeast (Gross and Heinrich, 1966). They range from 1 to 15 feet thick (average 4 feet) and exposures are from a few feet to more than 50 feet long.

At the Eureka Tunnel, a Mt. Rosa pegmatite intrudes Pikes Peak Granite. The dike trends N48W and dips 50 degrees northeast (Gross and Heinrich, 1966). A 20-foot-wide quartz core is exposed half-way into the drift from the portal. At the working face, the rock consists mostly of quartz, microcline, and the rare aluminofluoride weberite (Figure 12).

The Eureka Tunnel also is well known for zircon. Most of the zircon from the Cheyenne district is radioactive because of the presence of minor uranium or thorium. As a result, long-term exposure to radiation has altered the structure of the crystals—they have partially self-destructed, resulting in low translucency and pearly to greasy luster (see Figure 7). Such crystals are described as *metamict.* Zircon from the Eureka Tunnel is nearly pure $ZrSiO_4$. As a result, it commonly is gemmy, transparent, and exhibits a brilliant luster (Figure 8, 10). Unfortunately, the crystals tend to be very small—on the order of 2 or 3 mm across. Another property of this material is its vivid yellow fluorescence in shortwave ultraviolet radiation (Figure 9, 11). Metamict zircon has a dull fluorescence.

Figure 8. Zircon (reddish brown) in quartz from the Eureka Tunnel.
(Carnein collection and photos)

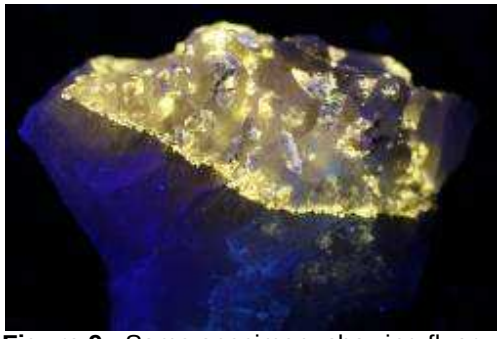


Figure 9. Same specimen, showing fluorescence in shortwave ultraviolet.

Other minerals encountered in the Mt. Rosa pegmatites include quartz, microcline, hematite, pyrite, galena, sphalerite, and many others. Of special interest are:

Astrophyllite (Fig. 6), which occurs as golden brown, micaceous plates and blades that may exceed 5x10x25 cm. It tends to occur where pegmatites border fayalite granite and along fracture surfaces in the Mount Rosa granite. In places, it replaces riebeckite.

Cryolite (Fig. 3) occurs with its alteration products (pachnolite, prosopite, ralstonite, thomsenolite, elpasolite, and weberite) at several locations. It is coarse, massive, and light gray to light pink (when fresh). Masses look blocky, due to 3 cleavage directions. It is commonly associated with quartz, microcline, blue gray pachnolite, or red brown stained prosopite.

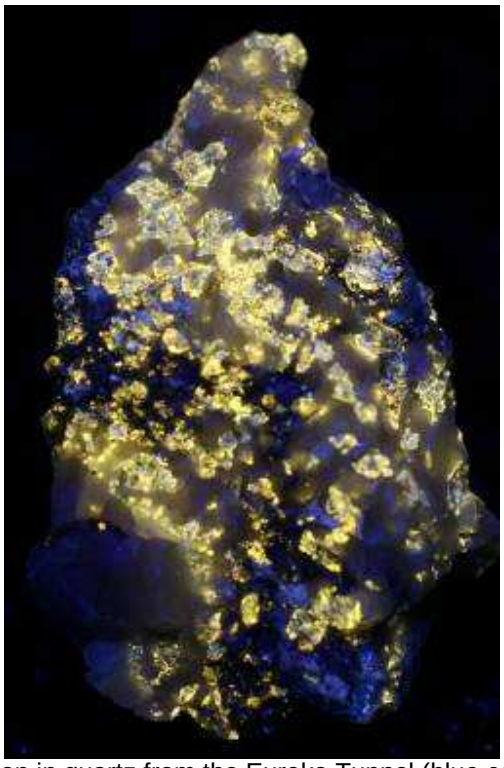
Fluorite occurs as veinlets and aggregates in most local pegmatites, though crystals are also known. It generally is purple to green in color and occurs with quartz and microcline.

Gearksutite occurs as a white powder in cavities rimmed by microcline. It was formed by alteration of other fluorides.

Riebeckite (Fig. 5), in blue-black crystals from 0.5-2.5 cm across and long to 10-15 cm across and 50-75 cm long. They may be randomly oriented or aligned perpendicular to the hanging-wall contact between pegmatite and granite. The latter commonly taper upward.

Thorite, in red brown, tabular crystals to irregular masses associated with zircon and quartz and a few mm to 3 cm long. Thorite is highly radioactive, metamict, and occurs in nearly all of the Mount Rosa complex pegmatites. Prospectors targeted it in the 1950s.

Weberite (Fig. 12) exhibits a brick red color and is common at the Eureka Tunnel with quartz and microcline.



Figures 10, 11. Another specimen of fluorescent zircon in quartz from the Eureka Tunnel (blue color is a reflection on non-fluorescent quartz). (Carnein collection and photos.)

Mindat.org lists 23 separate mineral localities in the Cheyenne district, including Stove Mountain, the Cryolite mine (aka the 65-2 pegmatite), and the Eureka tunnel mine (aka the 1-15 pegmatite). Of these, the Eureka tunnel and the Cryolite mine (or Cryolite Mountain) are the area's most famous deposits of aluminofluorides. Sixty-three valid minerals occur in the district, of which 15 contain essential fluorine:

Bastnaesite-(Ce): $(Ce,La)(CO_3)F$
Calcjarlite: $NaCa(AlF_6).H_2O$
Cryolite: Na_3AlF_6
Elpasolite: K_2NaAlF_6
Fluocerite-(Ce): $(Ce,La,Nd)F_3$
Fluorite: CaF_2
Gearksutite: $CaAl(OH)F_4.H_2O$
Murataite-(Y): $(Y,Na)_6(Zn,Fe)_4(Ti,Nb)_{12}O_{29}(O,F,OH)_{10}$
Pachnolite: $NaCaAlF_6.H_2O$
Prosopite: $CaAl_2(F,OH)_8$
Pyrochlore: $(Ca,Na)_2Nb_2O_6F$
Ralstonite: $Na_xMg_xAl_{2-x}(F,OH)_6.H_2O$
Thomsenolite: $NaCaAlF_6.H_2O$
Topaz: $Al_2SiO_4(F,OH)_2$
Weberite: Na_2MgAlF_7

(All formulas are from Back and Mandarino, 2008)

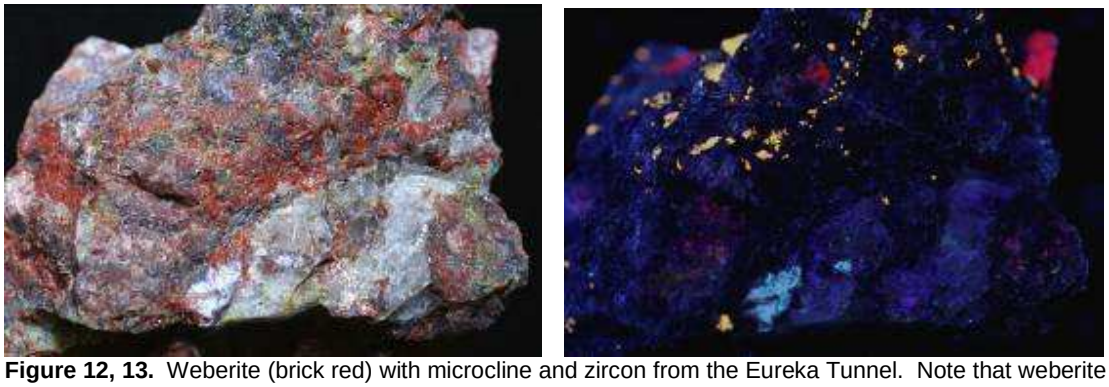
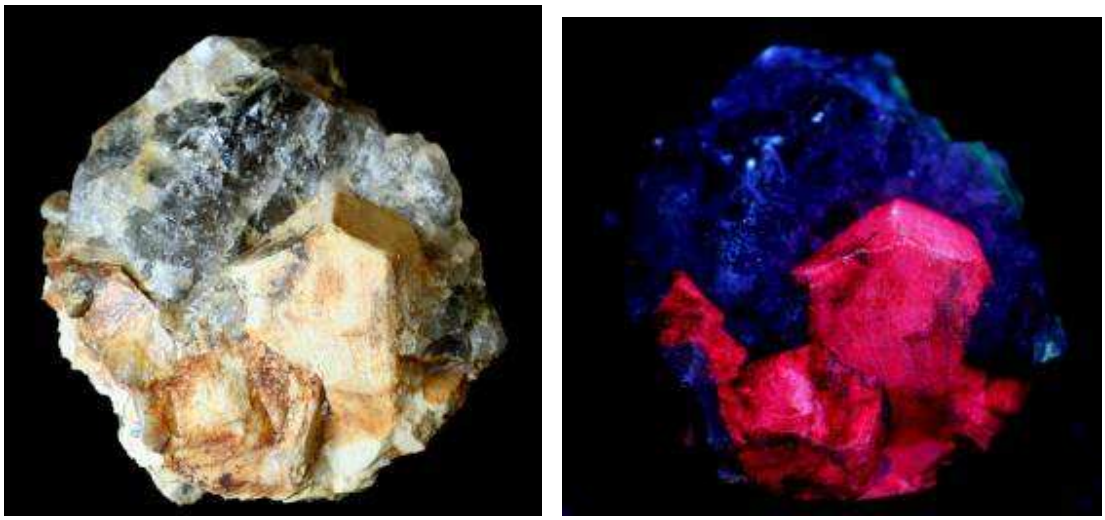


Figure 12, 13. Weberite (brick red) with microcline and zircon from the Eureka Tunnel. Note that weberite is non-fluorescent, unlike microcline, which often fluoresces red. Zircon fluoresces yellow in shortwave ultraviolet. Bright blue patch (white in normal light) at bottom is probably gearksutite. (Carnein collection and photos.)



Figures 14, 15. Microcline feldspar crystal in smoky quartz, from near St. Peters Dome. This specimen came from a Mt. Rosa pegmatite that also produces metamict zircon. Figure 15 shows fluorescence in shortwave ultraviolet (color is exaggerated--actually a dim cherry red). (Carnein collection and photos.)

Our exploration of the Cheyenne district is just beginning—we hope to continue with visits to Cryolite Mountain (the Cryolite mine) and other mines and prospects in the future as well as to develop a trip for Club members. The area is close enough for easy visits, and the mineralogy, history, and geology are fascinating.

References Cited

Back, M.E., and J.A. Mandarino, 2008, Fleischer's Glossary of Mineral Species, 2008: Tucson, The Mineralogical Record, Inc.

Barker, F., *et al.*, 1976, Pikes Peak batholith: geochemistry of some minor elements and isotopes and implications for magma genesis, *in* R.C. Epis and R.J. Weimer, Studies in Colorado field geology: Professional Contributions of the Colorado School of Mines, no. 8, p. 44-56.

Eckel, E.B., 1997, The Minerals of Colorado--Updated and Revised: Golden, CO, Fulcrum Publishing.

Gross, E.B., and E.W. Heinrich, 1966, Petrology and mineralogy of the Mount Rosa area, El Paso and Teller counties, Colorado. II. Pegmatites: American Mineralogist, vol. 51, p. 299-323.

Pearl, R.M., 1972, Colorado Gem Trails and Mineral Guide: Chicago, Swallow Hill Press.

Steven, T.A., 1949, Geology and fluorspar deposits of the St. Peters Dome district, Colorado: Colorado Scientific Society Proceedings, vol. 15, no. 6, p. 259-284.

Lake George Gem and Mineral Club
Box 171
Lake George, Colorado 80827
LGGMClub.org

2014 MEMBERSHIP APPLICATION

Name(s) _____

Address _____City _____State __ Zip _____

Telephone ( ) _____ - _____ E-mail _____

Names and ages of dependent members: _____
_____

Annual membership - dues Jan. 1 through Dec. 31 are as follows:

- ___Individual (18 and over) …….. $15.00
- ___Family (Parents plus dependents under age 18) …….. $25.00

Annual dues are due on or before March 31. Members with unpaid dues will be dropped from the roster after this date. Any new member joining on/after August 30 shall pay one half the annual dues.

I hereby agree to abide by the constitution and by-laws of this club.

Signed _____ Date: ____/____/____

I have previously been a member of Lake George Gem & Mineral Club. Yes __ No ___

My interest areas include:
Minerals __ Fossils__ Lapidary __ Crystals __ Micromounts __
Other _____

I would be willing to give a talk to the Club or Pebble Pups. ____ If yes, what topic?:

_____

Please indicate which of the following activities you might be willing to help with:

Writing _____ Editor _____ Mailing _____ Local shows _____

Club Officer _____ Programs _____ Field trips _____ Refreshments _____

Questions about the club or club activities? Contact Suz Core (719) 689-2092.
Rev. December, 2013

Lake George Gem and Mineral Club
P.O. Box 171
Lake George, CO 80827

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 2014 are:

Suzanne Core, President
PO Box 1154
Cripple Creek, CO 80813
719-689-2092
suzc@peakinet.net

Jo Beckwith, Vice President
PO Box 275
Guffey, CO 80820
719-689-0248
shawneewolf@hotmail.com

Wayne Johnston, Treasurer
207 Cooper Lake Drive
Divide, CO 80814
719-687-6067
wjohnston719@msn.com

Norma Engelberg, Secretary
2732 W. Bijou St.
Colorado Springs, CO 80904
719-337-8994
njengel60@gmail.com

C.R. (Bob) Carnein, Editor, 507 Donzi Trail, Florissant, CO 80816
ccarnein@gmail.com ; 719-687-2739