PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society
Founded in 1936

December 2015
PICK&PACK
Vol 55 .... Number 10

CSMS General Meeting

Thursday, December 17, 2015, 7:00 PM

*** Christmas Party ***

Please bring a dessert or hors d'oeuvres/main dish to share

Last name begins with A-L—hors d' oeuvres/main dish

Last name begins with M-Z—Dessert

Gift Exchange—If you would like to participate in the gift exchange, please bring a wrapped gift (hobby-related, $10 minimum value). Tables will be set up at the front of the room where you can drop off your gift and collect your number for the gift exchange.

Silent Auction—If you are able to donate to the silent auction, please bring a mineral related specimen (mineral, gem, fossil, jewelry, etc.) Tables will be set up near the meeting room entrance where you can drop off your donation to the auction coordinator.

2016 CSMS Officers

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Dues are due for 2016 !!!

Dues received before January 31st will be discounted.

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CSMS Calendar

December 2015

Tue., Dec. 1—Fossil Group, 7 p.m., Senior Center. Jerry Suchan 303 648-3410

Thu., Dec. 3—Board Meeting, 7 p.m., Senior Center.

Tue., Dec. 8—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719 495-8720

Thu., Dec. 17—Pebble Pups & Juniors, 5:30- 6:15 p.m., Senior Center. Steven Veatch, 719 748-5010

Thu., Dec. 17—General Assembly, 7 p.m., Senior Center (Holiday Party—Last name A-L, main dish; M-Z dessert)

Thu., Dec. 24—Crystal Group, No Meeting. Kevin Witte, 719 638-7919

Thu., Dec. 24—Faceting Group, No Meeting. Paul Berry, 719 578-5466

Appointment Only—Jewelry Group, Bill Arnson, 719 337-8070

Appointment Only—Lapidary Group, Sharon Holte, 719 217-5683

January 2016

***** THE PICK & PACK IS NOT PUBLISHED IN JANUARY *****

Tue., Jan. 5—Fossil Group, 7 p.m., Senior Center. Jerry Suchan 303 648-3410

Thu., Jan. 7—Board Meeting, 7 p.m., Senior Center.

Tue., Jan 12—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719 495-8720

Thu., Jan 21—Pebble Pups & Juniors, 5:30- 6:15 p.m., Senior Center. Steven Veatch, 719 748-5010

Thu., Jan. 21—General Assembly, 5:30 p.m., General Assembly—Officer Installation, Golden Corral, 5410 E. Woodmen Rd.

Thu., Jan. 28—Crystal Group, 7 p.m., Senior Center. Kevin Witte, 719 638-7919

Thu., Jan. 28—Faceting Group, 7 p.m., Senior Center. Paul Berry, 719 578-5466

Appointment Only—Jewelry Group, Bill Arnson, 719 337-8070

Appointment Only—Lapidary Group, Sharon Holte, 719 217-5683

February 2016

Tue., Feb. 2—Fossil Group, 7 p.m., Senior Center. Jerry Suchan 303 648-3410

Thu., Feb. 4—Board Meeting, 7 p.m., Senior Center.

Tue., Feb. 9—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719 495-8720

Thu., Feb. 18—Pebble Pups & Juniors, 5:30- 6:15 p.m., Senior Center. Steven Veatch, 719 748-5010

Thu., Feb. 18—General Assembly, 7 p.m., Senior Center

Thu., Feb. 25—Crystal Group, 7 p.m., Senior Center. Kevin Witte, 719 638-7919

Thu., Feb. 25—Faceting Group, 7 p.m., Senior Center. Paul Berry, 719 578-5466

Appointment Only—Jewelry Group, Bill Arnson, 719 337-8070

Appointment Only—Lapidary Group, Sharon Holte, 719 217-5683

The Senior Center is located at **1514 North Hancock** in Colorado Springs. For more information on any of the sub-groups, meetings, and other CSMS valuable information, please visit our website, http://www.csms.us

Other Events of Interest to CSMS Members

Submitted by Pete Modreski

Fri.-Sun., Dec. 11-13, Flatirons Gem & Mineral Show, "Rocks & Rails" (the Boulder Model Railroad Club show is combined with the gem & mineral show); Boulder County Fairgrounds, Exhibit Building, 9595 Nelson Rd., Longmont, CO, 10 a.m. – 5 p.m. each day. We (USGS) will have an exhibit booth at the show, and a slide show will be given by Pete Modreski on "Colorado Mineral Collecting" at 3 p.m. on Sunday.

Thurs., Dec. 17, 6:00 p.m., Colorado Scientific Society, Annual Meeting, potluck dinner, and Presidential Address, featuring **"Heat flow: then and now, here and there**", by Paul Morgan, Colorado Geological Survey, and CSS 2015 President. Shepherd of the Hills Presbyterian Church, 11500 W. 20th Ave., Lakewood. Dinner to begin at 6:00, meeting at 7:00. All are welcome; see http://www.coloscisoc.org/ . If you are not now a Sci Soc. member—this is a great evening to come, get acquainted, and join!

Wed., Dec. 30, 7:00-8:30 p.m., "**Non-Dinosaurs, the Mammals"** at the Dinosaur Ridge Visitor Center (16831 W. Alameda Parkway, Morrison, C-470 and Alameda Parkway). A free evening lecture on those wonderful, warm-blooded ancestors of ours! Learn about the mammals that coexisted with the largest animals to walk the earth and see which ones survived the extinction event at the end of the Cretaceous to evolve into some of the most impressive living things to date. Come on over this evening to see a presentation done by Erin LaCount on us and our mammal ancestors! Recommended for adults only (12 years and older).

The "**2nd Eugene E. Foord Symposium on Pegmatites, Golden Colorado**" will take place on the CSM campus, July 15-19, 2016. There will be a welcoming reception, two days of oral and poster presentations, and two days of field trips to Colorado pegmatite localities. Look for further information on the Friends of the Colorado School of Mines Geology Museum page, https://www.facebook.com/LikeCSMGeoMuseum/ . Pegmatite researchers from around the country are expected to attend, as well as local presenters. All will be welcome to attend. If you would like to receive future updates about the symposium or would like to offer to present a paper, please contact Mark Jacobson, markivanjacobson@gmail.com.

Special exhibits continuing in 2015:

The Mining Art of Buck O'Donnell, special exhibit at the Western Museum of Mining & Industry. "JC (Buck) O'Donnell created a series of pen and ink drawings for various mining related supply and informational magazines during the early to mid-20th century. His work appeared in magazines like Shaft and Development Machines and Machinery Center, Inc. O'Donnell's works served to provide visual evidence of how miners lived, how they worked, and what the western mining boom looked like to those who lived it." The exhibit opened on Sept. 10; regular admission charge. See www.wmmi.org for more details.

Steps in Stone: Walking Through Time, at the University of Colorado Museum of Natural History, CU campus, Boulder. "A new exhibition that features real fossil tracks and trackways from the University of Colorado Museum of Natural History collections". Open 9-5 weekdays, 9-4 Saturdays, 10-4 Sundays; closed on university holidays. Exhibit runs through December 2015; see http://cumuseum.colorado.edu/ .

Explore Colorado's Mining and Mineral Heritage: Colorado minerals, gemstones, and mining history material from the Colorado School of Mines Geology Museum and Colorado's State Mineral Collection continues on display on the third floor of the Colorado State Capital Building in Denver, at least through the end of the year. You can explore this online by following this link to the Friends of the CSM Geology Museum facebook page (you don't need to have a personal Facebook account to view this information.):

https://www.facebook.com/pages/Colorado-Mining-and-Mineral-History-on-Display/358587847669017\

FIELD TRIP REPORT: TROUT CREEK PEGMATITE, CHAFFEE COUNTY, COLORADO

Mike Nelson csrockguy@yahoo.com

Colorado has seen some absolutely gorgeous weather in Fall 2015. Although it seems unusually dry, especially after the local weather forecasters promised us a Godzilla El Nino wet fall, the days have allowed rockhounds to scour the countryside for treasures. However, not all rockhounding is created "equal." For example, some of my friends spent the second weekend in October near Moab, Utah, (Yellowcat) collecting petrified woods and agates. I spent this same weekend pretty much confined to my chair or using a cane to hobble around! In early May I had my right knee replaced and in late September I was the recipient of a brand spanking new right hip. It appears that as I age the body parts begin to wear out; this may reflect the many hills, mountains and streams I crossed during my active geology field days, or it simply may be genetics! Of course I have absolutely no regrets about that career, and was unable to really do much with my parental genetics. The good news is that I am healing and hopeful for a complete recovery.

This time at home allowed me to read a voluminous amount of material, including a rereading of one of my favorite authors, Bernd Heinrich, an ecologist from the University of Vermont. In *A Year in the Maine Woods* Heinrich sort of summed up my philosophy for this summer: *We all have the capacity to wonder. We all use it. But most of us must restrict it to the immediate things that affect our well-being. I am currently living a life of luxury* [maybe intellectually but not physically] *in that I can spend hours per day wondering about useless things, like:* why is Mr. Rockhounding the Rockies fascinated with smoky quartz, how do the hummingbirds at my feeders find their way to Central America, and most importantly "plurals"—for some words ending in **f** (self for example) a plural is constructed by changing the **f** to a **v** and adding **es** (selves). For other words ending in **f** (cliff for example), just add **s** for a plural (cliffs). How do you explain that? Even more strange is where we develop a new word for the plural---goose vs. geese. Life is full of good questions!

But, in order to get in a single leaf peeping trip before the recent hip replacement, I decided to take a little day trip to the west just taking in the scenery, the fall colors, and maybe pounding on a few rocks. I grabbed a large coffee, a couple of sweet rolls, water, and made it all the way to Leadville before retreating toward home.

One of the places that I wanted to recheck was the geology in the Trout Creek Pegmatite District (TCPA) situated along US 24/285 east of Buena Vista in the Mosquito Range (Fig. 1). I had visited the area perhaps nine years ago hunting for uncommon minerals and always vowed to return. Well, the years just sort of moseyed along and I decided that visiting the area now would be an easy chore for an old guy limping along.

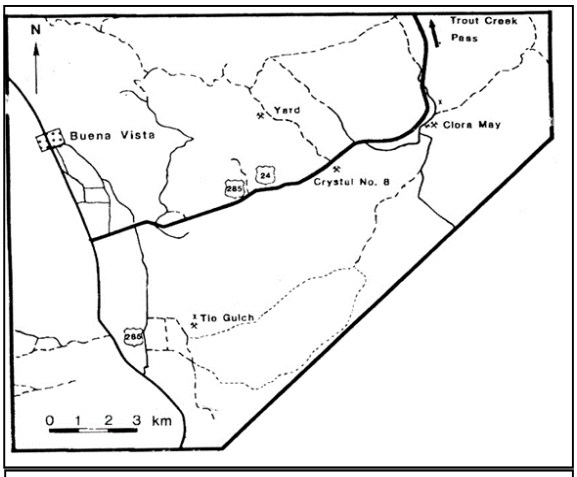

Fig. 1. Index map showing locations of the pegmatite mines and prospects in the Trout Creek Pegmatite Area. Forest Road (FR) 215 leaves US 285/24 and wanders south and west along Trout Creek. Map from Hanson and others (1992).

The TCPA, at first glance, seems nothing spectacular with much of the area exposing sections of a large granodiorite (granite-like rock with large amounts of plagioclase feldspar) pluton(s). Hanson and others (1992), in a major description of the pluton mineralogy, termed the unit the Denny Creek Granodiorite. However, the Colorado Geological Survey (Wallace and Keeler, 2003) chose not to formalize a name for the plutonic rocks and mapped them as Early Proterozoic (Precambrian) Xgd dated at ~1.7+- Ga. Whatever the case, there are several intrusive pegmatites (Fig. 2) and these are the source of numerous Rare Earth Minerals (REM) containing a variety of Rare Earth Elements (REE). The TCPA is perhaps the most accessible area in Colorado where rockhounds can hunt for, and usually collect, some fairly uncommon minerals containing REE (see Fig. 1).

The rare earth elements (REE) are a group of ~18 elements that are not really rare, but have strange sounding names that are tough for many to pronounce. On a periodic table, the REEs occupy a special line with atomic numbers from 57-71 (the lanthanides: lanthanum, cerium, praseodymium, neodymium, promethium, samarium, euro-

(Continued on page 5)

Fig. 2. One of the small intrusive pegmatites exposed in the TCPA.

pium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium) plus #21scandium and #39 yttrium. Together these elements are relatively abundant and may "make up" about 200 parts per million (PPM) in rocks of the earth's crust. In contrast, tin is a little over 2 PPM and silver is approximately .07 PPM. Yet in 2012 the world mined about 230,000 tons of tin while ~9000 tons of yttrium were produced. In fact, the individual crustal abundances of cerium, yttrium, lanthanum, and neodymium are about the same as crustal abundances of lead, nickel, zinc and tin. What gives? It appears the answer is concentration! Many valuable metallic elements are concentrated in rocks of the earth's crust and companies have developed the ability to mine elements with only a few PPM in the ore. The REE, although "common," are scattered in the rocks and are rarely concentrated in economically mineable amounts. However, the REEs are a valuable commodity and US companies are rapidly trying to ramp up mining permit applications and develop new and better methods for extraction. If the country is not successful in this endeavor, then the nation will continue to be held hostage by other successful countries. How will we make electric/hybrid car batteries, or even cell phone batteries, or night vision goggles?

The REM then are minerals that contain one or more REE. The USGS (2015) noted the principal economic sources of rare earths are the minerals bastnäsite (carbonate containing cerium, yttrium, lanthanum), monazite (phosphate mineral containing cerium, lanthanum, niobium, samarium, gadolinium), loparite (oxide containing cerium, niobium) and the lateritic ion-adsorption clays. The first three minerals are commonly found in igneous rocks of varied composition. The ion- absorption clays are found in tropical or subtropical environments where there has been intensive weathering of bedrock. Over 250 lateritic deposits containing REE are known and in fact these clays are an important and critical source of commercially mined REE (Cocker, 2012).

Although Colorado has a large number of sites across the state containing REM/REE, the TCPA has open access (I think) collecting areas close to a major highway (see Fig. 1). There are several pegmatites intruding into the granodiorite (the best exposed are the Yard, Crystal No. 8, Tie Gulch, and the Clora May); many contain REM, especially aeschynite.

Actually aeschynite is referred to as the Aeschynite Group and contains minerals that are a combination of various REE plus oxygen (O), or oxygen and the hydroxide radical (OH). One of the reasons that REE are "rare" and difficult to extract is that the REM contain a variety of REE and lack the concentration of just a single REE. At least that is my understanding, and it may be a little thin!

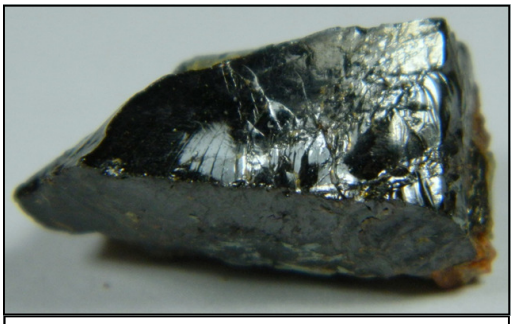

Fig. 3. Specimen of aeschynite-Y collected from a pegmatite exposed at the Clora May Mine, TCPA. Width ~2 cm.

At the TCPA the major REM is aeschynite-Y with a complex formula of $[(Y,Ca,Fe,Th)(Ti,Nb)_2(O,OH)_6]$; yttrium is the dominant REE (Fig. 3.). The mineral would be somewhat difficult for me to identify if I had not known the area was a major producer. It sort of looks like slag or some sort of a shiny metal (it is a metal). My specimen has a metallic to submetallic luster although some pieces may have a waxy or resinous luster. The color of aeschynite-Y is all over the place with mine being black; however, Webmineral.com lists other colors as brownish-black, brown, brownish-yellow, and yellow. There are some neat photos on the web showing very yellow specimens. It is hard to measure the hardness but somewhere between 5 and 6 (Mohs). Crystals are indistinguishable and the mineral usually appears as massive. My specimen is covered by small conchoidal fractures and because of the mineral's brittleness, a small fragment has spalled off.

As a softrocker/paleo person I am sort of baffled by the entire REE thing, but especially their formation. For an expla-

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nation I refer the readers to Hanson and others (1992) who noted that at the TCPA "the formation of …aeschynite-Y as a late-stage pegmatite mineral requires the rare combination of Ti, Nb, Y … enrichment coupled with low concentration of fluorine in the final stages of pegmatite formation."

There are several small mines in the TCPA pegmatites where evidently feldspar (and perhaps other minerals) was mined several decades ago. Of these mines, the Clora May is probably the best known. Nine years ago I hiked up to the Clora May and found the specimen of aeschynite-Y. On this trip I was limited to about 10 steps from my pickup and was unable to make the hike.

Any visitor to the TCPA, or in fact any traveler speeding down US 285/24, will notice the large exposures of the Wall Mountain Tuff known as "The Castles" cropping out along Trout Creek (Figs. 4-6). The Tuff is one of the really interesting geologic units exposed in this part of Colorado. About 36-37 Ma a very large volcano blew its stack and sent voluminous clouds of hot (~1300^0 F) ash, gases and crystals flowing and churning east and northeast essentially covering the entire landscape as it started to cool. Geologists call this massive cloud a Nuee Ardente and the resulting rock a welded tuff or ignimbrite. The source volcano is no longer visible; however, geologists believe it existed somewhere in the Salida-Buena Vista area in the vicinity of Mt. Princeton (also pre-Arkansas River). The Tuff can be traced at least to the Castle Rock area south of Denver where exposures occupy the high parts of mesas. It is hard to imagine such a catastrophic event.

Fig. 4. Panoramic view of the Wall Mountain Tuff exposed at "the Castles."

Fig. 5. Note the columnar jointing in the Wall Mountain Tuff.

Fig. 6. These spires are perhaps the most spectacular of the Castles exposed along Trout Creek.

REFERENCES CITED

Cocker, M. D., 2012, Lateritic, supergene rare earth element (REE) deposits: Arizona Geological Survey, Special Paper 9, Chapter 4.

Hanson, S.L., W.B. Simmons, K.L. Webber and A.U. Falster, 1992, Rare-earth-element mineralogy of granitic pegmatites in the Trout Creek Pass District, Chaffee County, Colorado: Canadian Mineralogist, v. 30.

Wallace, C.A. and J.W. Keller, 2003, Geologic map of the Castle Rock Gulch Quadrangle, Chaffee and Park Counties, Colorado: Colorado Geological Survey Open-File Report 01-1.

United States Geological Survey, 2015: www.minerals.usgs.gov/minerals/pubs/commodity/rare_earths/

Summer's Swan Song Pocket and The Big Kahuna

by Kevin Witte

Fig 1. Author ready to extract the Big Kahuna

Colorado Springs, Colorado, rests on the east side of the Pikes Peak Batholith, which extends north, south, and west of town for several miles. There are certain regions within the Batholith called intrusive areas that contain pegmatite rock formations which host pockets of desirable crystals.[1] I had a fairly poor year prospecting for crystals in the Lake George intrusive area of the Pikes Peak Batholith until I found the bonanza described below. I was hoping my luck would change before winter's arrival and this late season find made all the prospecting worthwhile. As I prospected a familiar area, northeast of Lake George, I took interest in a fairly large collapsed dig ahead of me. I reasoned that if someone had put in the time to dig this large of a trench they must have found something good. Knowing that most pegmatite formations in this area of the Lake George Intrusive run northwest to southeast I decided to prospect uphill and to my left in a southeast direction. I noted a few small digs that lined up with the older larger dig and decided to poke around in the shallow digs with my pickaxe to see what had caught a previous prospector's attention. I found a lot of white quartz with an occasional crystal face and decided this spot merited further inspection. After about three hours and two feet below the previous prospector's diggings, I was just about to give up when I found subhedral white quartz crystals and microcline. My gloves were shredded from the quartz shards, my fingertips were bleeding, and I had nothing to show for my efforts. I took the dirt top off around the pocket, dug out the overburden one last time, and to my delight I started seeing hints of blue on the microcline (amazonite). While the amazonite was only pale blue/green, the size was larger than I normally find. Time was up this day; I found a few amazonite crystals, covered up my dig, and decided to return soon with a new pair of gloves.

Vist #2 (near the end of September). I returned to the dig and uncovered the pocket, intending to extend the dig in all directions. As I was cleaning out what I thought was the bottom of the pocket I noticed some straight angles on what I had at first perceived to be country rock. I carefully scraped around the rock and found it to be a large crystal... hurrah!!! Another large crystal not as well formed as the first was in front of the prize, so I took that one out first. Initially I couldn't believe a crystal could be this big in such a small pocket.

Fig 2. Nice looking pocket material with smokys and microcline embedded in the mud.

Due to mud, crystal fragments, and compaction, it took me three three hours to remove the one large amazonite. From the pictures you can see the difficulty in removing a crystal of this size. No prying was done until I got to the bottom of the large crystal on all sides. The crystal weighs just under 26 pounds! I nicknamed this crystal the Big Kahuna as it's the largest amazonite I'd ever seen.

After finally digging out the Big Kahuna, I found several smoky quartz crystals, all damaged, beneath the amazonite crystal. I probably did some of the damage to the smokys but suspect when the pocket collapsed and the 26lb amazonite crystal landed on them they didn't fare so well. I then found a number of smaller amazonite crystals to the right of the Big Kahuna. Bob (my digging partner) thought I should name this pocket, so I called it *Summer's Swan Song Pocket*. A

(Continued on page 8)

Fig 3. Two large amazonite crystals side by side

Fig 4. The extraction process nearly complete.

cold front was moving through Lake George area, black clouds and colder air were moving in from the north. I think Summer's Swan Song is apt for this near end of season find.

Visit #3 (September 30) to the Summer Swan Song pocket. The first thing I did was dig out the debris in the pocket, from the prior day's visit. I was careful to hand load material onto the flat bladed shovel in order to spare the crystals from any trauma. Within 10 minutes I was once again digging out crystals. Another beautiful fall day at Lake George as the aspen leaves were beginning to fall. Many of the smokys were problematic with secondary white quartz growth and blunted tips. The host quartz seam ran up the hill beginning as fairly brittle then firming up as I followed the quartz to the pocket. The smoky quartz crystals all tended to be below the amazonite. I got a few nice plates and single specimens this day. I used up all my newspaper for cushioning the crystals and my backpack was overflowing. At the time I believed I had 90 percent of the crystals removed, but knew I still had to excavate the bottom of the pocket and carefully probe the sidewalls to make sure I was really done. Here is another picture showing the crystals just after coming up for air after their 1,000,000,000-year rest and yes, there was another visit to the Summer's Swan Song pocket!

Fig 5. The Big Kahuna in-hand.

Visit #4 (October). The dig continued for amazonite and smokys. I had thought I was nearing the end of this pocket but as I cleaned out the left side of the pocket it widened back out. While I didn't find anything spectacular this day, there were still plenty of crystals to keep me busy. I found some smokys, but many were damaged to some degree, either with secondary white quartz hooding them or blunted tips that probably occurred during the pocket implosion. The amazonite crystals remained pale, but still well formed and desirable. Near the end of the day I noticed I was breaking some crystals from fatigue and carelessness so I sent in Bob, my pinch hitter/digging partner to help remove crystals while I wrapped what I found. Bob found some nice specimens for his own collection. This day the zipper on my backpack broke from the weight of the crystals! Normally I'm happy to fill a flat (18x12" box) with desirable crystals from a single pocket. This pocket has produced at least five flats, not including the Big Kahuna.

Today was October 8, and the fifth and final visit to the Summer Swan Song Pocket. I spend about five hours at this site each time I visit. This

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day I went straight ahead, right and down in the pocket to make sure the dig was done. I found a few subhedral microcline crystals at the bottom of the pocket with small fluorites attached, but that was about it this day. While I have found better crystals in smaller pockets, I never found the volume of collectible crystals like this before. The desirable combinations of amazonite and smoky crystals were few and far between. I showed the Big Kahuna to my mentor, Ray Berry, a 40 year prospector of the Lake George area, and he had never seen anything quite that big and noted that Bevino twinning was apparent[2]. Ray was excited enough to take several pictures of the Big Kahuna from different angles and get its weight (26 pounds)... seemed like a trophy fish. Thanks for your mentoring, Ray Berry!

Fig 6. Example of peanut butter-like mud sticking to crystals.

Fig 7. Smoky and amazonite, one of the few well-formed smokys found.

Fig 8. After a week of cleaning in acid. Looking good, Abe is almost standing on his head... more cleaning is required.

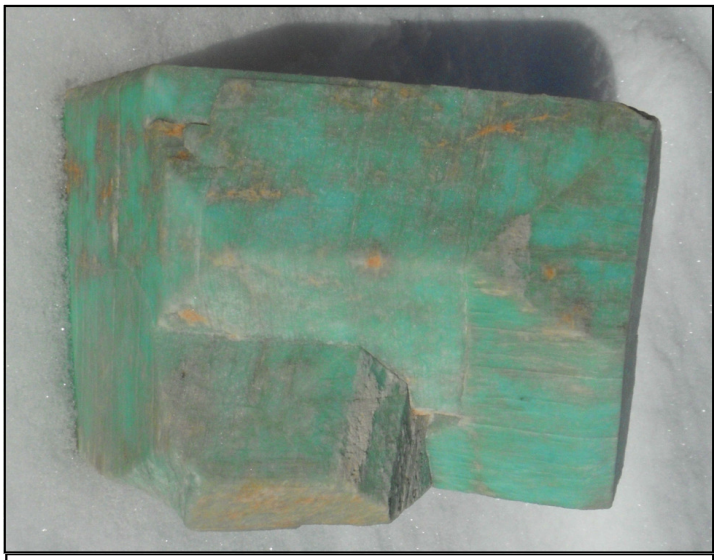

Fig 9. The Big Kahuna all cleaned up and weighing in at 26 pounds!

[1] Hutchinson, R.M. "Granite Tectonics of Pikes Peak Composite Batholith," Colorado Pegmatite Symposium 1986 – Colorado School of Mines.

[2] Sinkankas, J. "Mineralogy for Amateurs"1964, 4th Ed, Crystal Growth and Twinning pp 97-100

The Gravel Pit

- The January 2015 General Assembly / New Officer Installation Dinner will be held at the Golden Corral at 5410 E. Woodmen Road on Thursday, January 21st, at 5:30 p.m. We are honored to have Pete Modreski as our guest speaker. More information will be emailed as we get closer to the date.
- Annual Membership dues are due in January. A $5.00 discount will be offered to all members submitting for membership by January 31st, 2015. You may purchase a new membership at the December and January General Assembly meetings. Membership forms are also available on our website at www.csms.us.
- The Pick & Pack will not be published in January. The Pick & pack is published ten times a year, February through July and September through December.

2015 CSMS Officers

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Melanie Glascoe, Secretary

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Lisa Kinder, Editor

Ariel Dickens, Membership Secretary

Doreen Schmidt, Member-at-Large

Yam Yamiolkoski, Member-at-Large

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TBD, Science Fair Chair

Frank & Ellie Rosenberg, Librarians

Georgia Woodworth, Social Committee

Ann Proctor, Store Keeper

Jackson Pierce, Webmaster

Sub-Group Responsibilities for Refreshments for General Assembly Meetings

Feb. Jewelry	Mar. Lapidary	Apr. Micromount
May Board	June Crystal	July Faceting
Aug. Picnic	Sept. Fossil	Oct. Jewelry
Nov. Lapidary	Dec. Christmas Party	

SECRETARY'S SPOT

Minutes of the Colorado Springs Mineralogical Society General Meeting

Minutes were not submitted for the November Meeting

PICK&PACK
THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Our Staff...
Lisa Kinder—Editor

We encourage everyone to submit articles, photos, illustrations or observations.

Share your experiences, your new finds, or simply your experience at our last field trip.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed. The DEADLINE for items to be included in the next Pick & Pack, is the **21st of the month**

To submit an item:
For hardcopy photos or articles, mail to the address below or bring them to the General Meeting. All hardcopy photos remain the property of the submitter and will be returned. Electronic photos should be submitted at resolutions above 200 dpi in TIF, BMP, JPG, or PIC format. Articles are preferred in word. Editors will correct font.

E-Mail to:
csmseditor@hotmail.com

Mail to:
Pick & Pack Editor
PO Box 2
Colorado Springs, CO 80901

The PICK&PACK is published ten (10) times per year (no issues in January or August).

CSMS

T-Shirts, Badges, and Pins are available for sale.

If you celebrated a CSMS anniversary in 2013 or 2014, you are eligible for your one year pin award

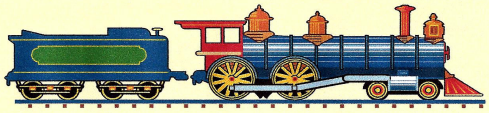
Please see Storekeeper, Ann Proctor

Classifieds

DECEMBER 12TH, 13TH, & 14TH

Boulder Model Railroad Club 38th Annual
Model Railroad Show

Model RR Displays
Kids' Layout
Operating Layouts
Raffle for a Complete Train Layout



Vendors for books, videos, apparel, model trains & railroadiana
website: www.bouldermodelrailroadclub.org • Contact Jim Froning 303-823-5531

Flatirons Mineral Club
Rock & Mineral Show

Displays
Demonstrations
Kid's Area†
Grab Bags†
Silversmithing
Classes & Speakers
Hourly Door Prizes
Grand Prize
†Proceeds go to Scholarships

Dealers selling: rocks, jewelry, fossils, minerals, gems, and tools
website: bcn.boulder.co.us/community/fmc • Contact: Ray Gilbert 303-774-8468

PLACE: Boulder County Fairgrounds
Hover & Nelson Roads, Main Exhibits Building, Longmont, CO

DATES & TIMES:
Friday, December 12th 10am–5pm
Saturday, December 13th 10am–5pm
Sunday, December 14th 10am–5pm

ADMISSION: Friday $5 • Saturday $5 • Sunday $5
Ages 12 & Under: Free with paying adult

Both clubs are non-profit organizations.

Find us on Facebook

Postage Here

PICK&PACK
P.O. BOX 2
COLORADO SPRINGS, CO 80901-0002

Time Value
Do Not
Delay

CSMS is an incorporated nonprofit organization with these goals:

To promote and disseminate knowledge of the earth sciences, especially as they relate to mineralogy, lapidary, and fossils.

To encourage study, collection, and fashioning of minerals.

To accomplish the same through social meetings, lectures, programs, displays, shows, and field trips.

The Pick & Pack is published 10 times each year to assist and promote the above.

Joining the Colorado Springs Mineralogical Society (CSMS):

Meetings are held the **third (3rd) Thursday of each month**, except January & August, **7:00 p.m.** at the Colorado Springs Senior Center, 1514 North Hancock Ave., Colorado Springs, CO. **Visitors are always welcome**. CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

Yearly dues include 10 issues of the *PICK&PACK*, all field trips (additional fees may be required on some field trips, and members are responsible for all transportation to and from), participation in all Satellite Groups (some groups may request additional fees to help cover resource costs), free admission to the *Western Museum of Mining & Industry*, a year of learning and enjoyment, plus a lifetime of memories.

Individuals—$30, Family—$40, Juniors—$15, Corporate—$100, ******Application is on the web site.

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Meeting or visit our web site: www.csms.us.

CSMS is a Member of the following organizatons:

American Federation of Mineralogical Societies (AFMS) www.amfed.org

Rocky Mountain Federation of Mineralogical Societies (RMFMS) www.rmfms.org