

TAR HEEL



ROCKHOUND

AUGUST 2012

CATAWBA VALLEY GEM & MINERAL CLUB, INC.

2012 OFFICERS AND COMMITTEES

President:	Baxter Leonard 828-320-4028	Editor:	Velda McLean 828-572-1826	Show Chairmen:	George Max 828-328-9107
Vice President:	Joan Glover 828-324-0707	Field Trip:	Harry Polly 828-728-9553		Eric Fritz 828-495-7031
Treasurer:	Zan Ritchie 828-495-8456	Education:	George Max 828-328-9107	Scholarship:	George Max 828-328-9107
Secretary:	Dean Russell 828-330-0034		Bob Tallent 828-851-8434		

Club Address: PO Box 2521, Hickory, NC 28603-2521
Regular Meetings: Second Tuesday, 7:00 PM
St Aloysius Catholic Church
921 2nd St NE Hickory, NC
Annual Dues: Family, \$18; Individual, \$12; Junior, \$6

The purpose of the Club is to increase the individual's knowledge of the earth sciences and to aid in the development of lapidary and related arts and skills; to promote fellowship and exchange of ideas; to hold exhibitions, contests, lectures and demonstrations for educational purposes; to help interest more people in the gem and mineral hobby; and to capture and preserve the beauty of nature, the arts, and the works of man.

LOCATION FOR AUGUST PROGRAM

Lenoir-Rhyne University Minges Science Building,
2nd floor, Room 214, Hickory, NC

KENTUCKY LABOR DAY FIELD TRIP

Ann Koebberling is in the process of putting together a field trip to Kentucky for geodes over Labor Day. I have prior commitments and will not be going. Anyone interested can contact Ann at 828-754-4091 (work), 828-729-5114 (cell).

Harry Polly, Field Trip Coordinator

INSIDE

President's Message-----	2
Minutes-----	2
August Program-----	2
Field Trip News-----	3
Last Year's Field Trip (Photos)-----	3
Sink Hole Mine (History)-----	3
Wildacres Week-----	4
Mini Miners Monthly-----	5

CATAWBA VALLEY
GEM & MINERAL CLUB, INC.

<http://www.cvgmc.com/>

Web Master: Mike Streeter

Velda L McLean, Editor
3484 Coy Miller Road
Lenoir, NC 28645
velda@email.com

PRESIDENT'S MESSAGE

Baxter Leonard, Club President

August is a warm to hot month, and even though we may not be as active outdoors, we should start thinking of our annual indoor event March 2013--i.e. our mineral/jewelry/fossil show. Let us bring up subjects at this month's meeting concerning a central theme or special display for the show. All members have seen someone or some subject that would attract the attention and interest of the public and we need to decide what that particular theme/subject is appropriate for next year's show.

It is fortunate that our club has a balance of members interested in the various facets of our hobby which may include: minerals, fossils, lapidary. The theme may not be limited to one subject, or it may be very specific in subject matter. It may be organized by a club member, or it may involve an outside person who is not a club member. So everyone give consideration for this between now and the meeting, and let us have many ideas to review.

Baxter Leonard

CATAWBA VALLEY GEM AND MINERAL CLUB, INC.

Minutes for July 10, 2012

The July 10, 2012 meeting of the CVGMC was called to order by President Baxter Leonard at 7:00 PM. There were 34 members and guests present. Minutes from the May 2012 meeting were approved by the club. Motion was made by Larry Huffman, seconded by Harry Polly, and approved by the club.

Treasurer Report: Zan Ritchie asked if any member would be willing to assume the upcoming role of treasurer. Terry Russell volunteered. Zan and Terry will work together on the transition. Zan also wanted to remind club members that the club projector is available to borrow. Just contact Zan to make arrangements.

Field Trip Report: A field trip has been organized for the Ray Mine on 7-20-2012.

Show Committee: No report.

Education Committee: The Van Oak and Maiden schools were visited in May and five programs were presented.

Old Business: No old business.

New Business: The August 14th Club meeting will be held in room 214 in the Minges Science Building on the Lenoir-Rhyne University campus at 7:00 PM.

General Information: Grassy Creek Show was mentioned. Also mentioned was the once a year opportunity to collect Bisbee Turquoise on Oct 14, 2012 in Bisbee, AZ. Contact the Bisbee Mining & Historical Museum for information. There are only 100 slots to collect available.

Scholarship Committee: Anthony Frushour was awarded the Club Scholarship after a motion by George Max and seconded by Harry Polly and approved by the club membership. A club member, Anthony, is studying Geology at Appalachian State University.

Closing of Business: The meeting adjourned at 7:30 PM.

Program: Ron Ruschman gave a presentation on Arizona minerals. Ron is an annual vendor at the club's show.

Respectfully submitted,
Dean Russell, Secretary

AUGUST PROGRAM

Joan Glover, Program Director

George Max will discuss properties of glass and demonstrate glass blowing artistry.

Location: Lenoir-Rhyne University Minges Science Building, 2nd floor, Room 214.

Parking: The restricted parking lots and parking spaces around Minges Science Building should be available for our use, since summer school will not be in session.

Unfamiliar with Lenoir-Rhyne University? Come to our usual meeting room at St. Aloysius, and a Gem Club representative can guide you to the correct meeting place at Lenoir-Rhyne.

Joan Glover

FIELD TRIP NEWS

Harry Polly, Field Trip Coordinator

The August field trip will be to the Sink Hole Mine in Mitchell County. We will meet at 8:00 am in the parking lot of the *BBQ Man* in Hudson, NC. This is the large PINK Quonset hut sitting on the hill past Caldwell Community College. You will need hammers, chisels, crack hammer or sledge, collecting buckets, food, water, and rain gear. A shovel is sometimes needed. There are no facilities and no food places close by. This is a good place to get grab bag material. There are no restrictions on how much to collect and there is no fee involved. Material found here is feldspar, garnet, apatite, mica, quartz, beryl. The best specimens are the apatite with garnet interspersed.

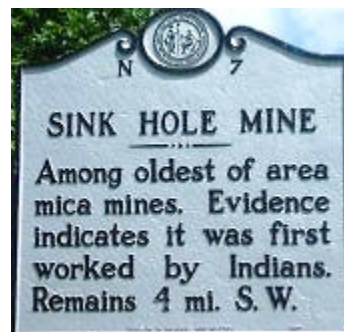
Harry Polly

LAST YEAR'S FIELD TRIP



SINK HOLE MINE

The Sink Hole Mine in Mitchell County was one of numerous mines in western North Carolina that originally were worked by American Indians before the arrival of white settlers. It therefore was predominantly used for mining mica. Commercial mica production began in 1867 and continued on a mass scale until the 1960s, when the development of solid state electronics led to a decrease in the need for sheet mica. The remains of the Sink Hole Mine are still evident, about four miles southeast of Bakersville.



Mica is composed of a group of aluminum silicates is common in the Blue Ridge Mountains and western Piedmont. Since the 1870s, North Carolina mines have produced the majority of mica in the United States. Sheet mica initially was used as a form of window glass, and then as an insulator for electrical equipment. Additionally, in the early 1900s, scrap mica became a popular product as a friction-causing agent.

There is evidence of mining for a variety of minerals in North Carolina far before the development of modern mining. Although information about earlier miners is lacking, it is believed that mining began prior to 1500. Modern mining in Mitchell County, specifically, was developed in the trenches and mining pits already dug by Indians. Prospectors in western North Carolina from the 1860s expanded upon older mines and developed a formidable industry.

Senator Thomas L. Clingman established the location for the modern Sink Hole Mine, having been hired by a New York mica dealer to investigate the accessibility of the mineral. As word of successful mining spread, mica operations were set up in Buncombe, Haywood, Jackson, Yancey and Macon Counties. The mining of mica in North Carolina became hugely successful, eventually making the state the dominant source of mica in the nation.

References:

Jasper Leonidas Stuckey, *North Carolina: Its Geology and Mineral Resources* (1965)
Bill Sharpe, *A New Geography of North Carolina*, I (1954)
John P. Arthur, *Western North Carolina: A History* (1914)
William S. Powell, ed., *Encyclopedia of North Carolina* (2006)
Mitchell County Board of Education, "Discovering Mitchell County" (1939)
<http://www.ncmarkers.com/Markers.aspx?ct=ddl&sp=search&k=Markers&sv=N-7%20-%20SINK%20HOLE%20MINE>

WILDACRES WEEK

by Anne Lynn Benson,
Wildacres Spring Scholarship Recipient

The 40th annual Spring EFMLS Workshop at Wildacres was fabulous! My dream of attending finally came true April 10 thru 15 when, thru the generosity of the EFMLS Wildacres Workshop Committee and its supporters, I became the recipient of a scholarship to the Wildacres Retreat. A thousand thank-yous to everyone who made this wonderful week possible.

In my nearly 30 years with the Delaware Valley Earth Science Society (DVESS), I've amassed many minerals, fossils and even rocks I'd love to wear as jewelry; the beginning and intermediate Wire Wrapping classes I took gave me the skill to begin making this dream come true. Wildacres instructors volunteer their time and are reimbursed travel expenses; my teacher was master wire jewelry artisan Jan Stevens <http://www.wrapsodyjewelrystudio.com>.

Although the week began quite cool and windy, by the third day temperatures had warmed into the 70's. The view from the patio was crystal clear and the dogwoods, rhododendrons and other flowers were beautiful; the Hiking Class even found trilliums in bloom. Hearty meals were served family style by a cheerful kitchen staff.

Lawyer, writer, mineral dealer (Octahedron Minerals) and Baltimore Chronicle editor Alice Cherbonnier was my travelling companion. We had a grand time getting to know each other. Later this year we'll be taking a Field Trip to Alice's home in Towson, MD to see her collection and do some "silver picking".

Speaker-in-Residence Jeff Scovil gave our group of 60 participants six colorful and fantastic talks including one on his technique for photographing minerals and gems. Jeff also took classes in silversmithing and produced some very nice pieces despite having undergone hip replacement surgery less than a month ago!

YOU can join in the fun by registering for the September 3 - 9 session. Speaker-in-Residence Julian Gray is busy preparing his talks; the wide variety of wonderful classes includes faceting, soapstone carving, micromounting and gem trees with outstanding instructors and the usual "good stuff" auction, field trip, tailgate sale and "phun" night. Consider signing up! Registration and additional info can be found in the EFMLS Newsletter:

<http://www.amfed.org/efmls/efapril12web.pdf>



Jeff Scovil - Master Photographer

Breathtaking, stunning and meticulous are the first words my brain could grasp after I caught my breath each time one of Jeff Scovil's photographs appeared on the screen during his six presentations at the Spring 2012 Wildacres Workshop. Jeff travels the world, staying days and weeks at the homes of mineral collectors to photograph their million-dollar collections. His pictures have appeared on eleven posters for the Tucson Gem & Mineral Show, in Peterson Field Guides, and several other mineral books; his own Photographing Minerals, Fossils, and Lapidary Arts (Geoscience Press, 1996) is the only book ever written on the subject. He has been running the Seminar in Mineral Photography at the Tucson show for 20 years, and was the 2007 recipient of the Carnegie Mineralogical Award.

EFMLS News -- June-July, 2012

FLOWERS OF THE MINERAL KINGDOM

Central PA Rock & Mineral Club

The Central Pennsylvania Rock and Mineral Club wishes to invite you to join us for our 47th Annual Gem, Mineral and Jewelry Show and 62nd EFMLS Convention September 15-16, in Harrisburg, Pennsylvania. The EFMLS Convention activities take place Friday, September 14, thru Sunday, September 16, 2012. It has been 12 years since our club hosted the EFMLS convention. At that time the EFMLS was celebrating its 50th Anniversary.

47th ANNUAL
GEM MINERAL & JEWELRY SHOW
<http://www.rockandmineral.org>
Central Pennsylvania ROCK AND MINERAL CLUB, INC.
SEPTEMBER 15 and 16, 2012
SAT. 10 am - 6 pm SUN. 10 am - 5 pm
ZEMBO SHRINE
THIRD AND DIVISION STREETS, HARRISBURG, PA
Vendors of Jewelry, Beads, Gemstones, Minerals and Fossils
CHILDREN'S ACTIVITIES PRIZES EDUCATIONAL EXHIBITS
ADMISSION **\$6.00**
\$1.00 discount on each of two adult admissions with flier
Maximum Value \$2.00
CHILDREN 12 AND UNDER AND SCOUTS IN UNIFORM FREE WITH ADULT

MINI MINERS MONTHLY

Vol. 6 No. 7

A Monthly Publication for Young Mineral Collectors

July 2012

Can Light Go Through Minerals?

There are many different ways to describe the look and the physical properties of a mineral. Some of these have to be done using special equipment (like *specific gravity* which you can read about in this issue. To measure specific gravity you need a “Jolly Balance”). To measure *hardness* you need a set of minerals in the Mohs’ Hardness Scale. However, *color* is determined simply by looking at the mineral and describing the color. Another description that you can do with the mineral specimens in your collection is *Transparency*. Transparency is a description of how much light goes through a particular mineral. This is very easy, and includes only three simple categories. Here they are:

Transparent

A mineral is described as transparent if light travels through it. Quartz crystal, beryl (like emerald and aquamarine), some specimens of gypsum, and some specimens of calcite can be described as transparent. When you hold them up to a light, you can see right through them as if they were pieces of clear, perfect glass.



Translucent

A mineral is described as translucent if light can pass through it, but you can’t see through it because there are inclusions or other things inside the specimen. You can see shapes and shadows through the specimen, but not clear objects. Minerals that are sometimes transparent can, very often, be translucent. Other examples of translucent minerals are tourmaline, some quartz, calcite and fluorite specimens, etc.



Opaque

A mineral is described as opaque if it doesn’t let any light pass through it at all, even when it is sliced into thin pieces. Examples of opaque minerals include galena, pyrite, sphalerite, marcasite, etc.



Go to the specimens in your collection and try to look through them. Are they transparent, translucent or opaque? This can be a challenging project. There are some specimens that are translucent. However, on a very, very thin edge of a crystal, you may be able to see right through that edge. You may end up describing the specimen as “translucent (with some transparent edges).”

Also, keep in mind that there are surprises in the mineral world. Minerals like sphalerite are nearly always opaque. But once in a rare while, a unique and wonderful specimen is found that, on a thin edge, is translucent! On the other hand, some mineral species, like galena and pyrite, are opaque and will never, ever be translucent. Have fun. If you keep a catalog of your specimens and their properties, analyze them and write down the “Transparency” of each specimen.

©2012 Darryl Powell

What is “Specific Gravity”?

When you look at an entry for a mineral in a mineral handbook or textbook, you will see a listing of that mineral’s physical properties. When the properties are listed, the name of each property isn’t always written out. So, instead of seeing “Hardness = 2.5” you might see “H: 2.5”. Another physical property that is not usually written out is “Specific Gravity.” It is usually written in a short form as “Sp. Gr. = ____” or “SpGr = ____” and some books just write “gravity”.

What is “Specific Gravity”? Many mineral collectors think that it has something to do with the weight of a mineral. The specific gravity of a mineral will affect its weight. But remember, the size of a specimen also affects the weight. A quartz specimen the size of your hand may weigh a pound or less. A quartz crystal the size of an adult human will weigh hundreds of pounds.

“Specific Gravity” is actually a comparison. It is a comparison between the weight of a mineral and the weight of an equal amount of water. In other words, specific gravity is a number that tells you how many times more a particular mineral species weighs than the same amount of water.

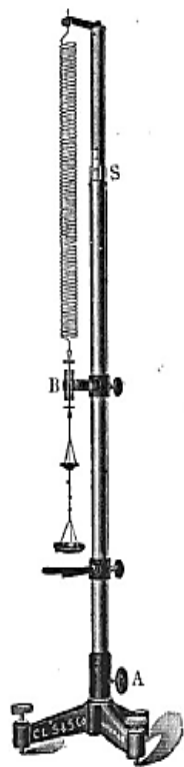
Here’s a better way of understanding “Specific Gravity.” The specific gravity of silver is 10. If you had a bucket of silver and a bucket of water that is exactly the same size, and both buckets are filled right up to the top, the bucket of silver will weigh 10 times as much as the bucket of water. Here’s another example. If you have the same bucket of water, and now you have next to it a bucket of the same size filled with calcite, the calcite will weigh about 2 1/2 times as much as the bucket of water.

Now you try it. The mineral *fluorite* has a specific gravity of 3.4. This means a bucket of fluorite weighs 3.4 times as much as an equal bucket of water. Metallic minerals, like galena, pyrite, and hematite have higher specific gravities than minerals that don’t contain metals (like lead and iron). Galena’s specific gravity is 7.5. So (here we go again) a bucket of galena weighs...you got it... 7.5 times as much as an equal bucket full of water.

The mineral with the highest specific gravity is platinum. The specific gravity of pure platinum is 21.5. If you were rich enough to buy a bucket of pure platinum, it would weigh how many times an equal bucket of water? That’s right, 21.5 times as much!

To the left is a picture of a piece of laboratory equipment that was invented to measure specific gravity. It is called a “Jolly Balance.” It is called this not because it makes you happy, but after its inventor, a German physicist named Philipp von Jolly. It is designed so that you can first measure the weight of a piece of a mineral in air, and then the weight when the same specimen is placed in a cup of water. Then, the following formula is used to determine the specific gravity:

$$\frac{\text{Weight of Mineral in Air}}{(\text{Weight of Mineral in Air}) - (\text{Weight of Mineral in Water})}$$



First Class Mail



TAR HEEL ROCKHOUND

Official Publication of
**Catawba Valley
Gem and Mineral Club, Inc.**

Volume 41 Number 8

Club Meeting
Tuesday
August 14, 2012
7:00 PM

Lenoir-Rhyne University
Minges Science Building
2nd floor Room 214,
Hickory, NC

Unfamiliar with Lenoir-Rhyne University?
Come to our usual meeting room at
St. Aloysius, and a
Gem Club representative can guide you
to the correct meeting place at Lenoir-Rhyne.

Tar Heel Rockhound
Velda McLean, Editor
Post Office Box 2521
Hickory, North Carolina 28603-2521
<http://www.evghmc.com/>