

TAR HEEL



ROCKHOUND

DECEMBER 2025

Catawba Valley Gem & Mineral Club, Inc.

2025 Officers and Committees

President:	Tracie Jeffries 828-430-1341	Education:	George Max 828-328-9107
Vice President:	Joan Glover 828-446-7633	Show Chairman:	Dean Russell 828-303-1448
Treasurer:	Terry Russell 828-303-1563	Scholarship:	George Max 828-328-9107
Secretary:	Dean Russell 828-303-1448	Field Trip:	
Editor:	Tracie Jeffries 828-430-1341		

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, \$25, Individual, \$18

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.

CATAWBA VALLEY GEM AND MINERAL CLUB, INC.

Web Master: Mike Streeter

<http://www.cvgmc.com>

Editor: Tracie Jeffries,
3118 Barus Street, Valdese, NC
botanynerd89@gmail.com

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PRESIDENT'S REPORT

Hello Fellow Members,

This is my last report as the club president. I have enjoyed being the club president but I am ready to pass on the responsibility. I would like to thank and congratulate our new and continuing officers and board members. I am sure Ben H. will be a great president and will lead and guide our club well in 2026. The beginning of 2026 will be busy as we prepare for our annual Gem and Mineral Show. Remember, the show is much earlier this year, March 6 -8th. So we need to start planning right away. Please think about ways you can help and participate. We will need to:

- Set up a grab bag work day
- Sign up volunteers for selling tickets
- Have volunteers to help with the set up and take down
- Sign up volunteers to help in the exhibit area: Kids Table, Mini Mine, etc..
- Have club members set up show cases for public view

We will also need to schedule some potential work days to help move club property from the trailer at Lenoir Rhyne to our new storage shed. Keep your eyes and ears open for more information.

In the meantime enjoy the holidays with your friends and families!

CVGMC MINUTES FOR NOVEMBER 11, 2025

The November 11, 2025 meeting of the CVGMC was called to order by President Tracie J. at 7:00 PM.

Visitors: Cindy & Tom W.

Program: Garth Brown did a presentation of "Rock Art"

Minutes: A motion was made by Harry P. and seconded by Rick G. to accept the October 14, 2025 minutes. Motion was passed by the Club membership.

Treasurer: The bank balance was reported.

Education: No report

Show:

- 1) The next CVGMC show will be March 6-8, 2026. More information in the future.
- 2) 40+ vendors will attend
- 3) Jeanne S. and David I. will start the Facebook advertising for the show.

4) The theme of the show is "Home Grown".

Field Trip: None reported.

Old Business:

1) The Club has rented a 12' X 20' Storage unit in Hickory.

2) Still need a Field Trip Organizer.

New Business: A motion by Norma R., seconded by Jeanne S., to nominate and elect the officers presented for the 2026 CVGMC year.

- President: Ben Houston
- Vice President: Joan Glover
- Treasurer: Terry Russell
- *Secretary: Dean Russell
- *Show Chr.: Dean Russell
- *Editor: Tracie Jefferies
- *Past Pres.: Tracie Jefferies
- Director at Large: Jeff Schlottman
- Director at Large: Amanda Redfern
- Director at Large: Slade Harvin
- Director at Large: Harry Polly

The motion was discussed, voted on and passed by the Club members at the meeting.

*Note: Because Tracie Jefferies and Dean Russell hold two of the voting positions on the Board of Directors, but only has one vote, an additional two Director at Large was voted to the Board to have the required nine voting members of the CVGMC Board of Directors.

Announcements:

1) The Annual CVGMC Christmas Party and Live Auction will be held during the December 9 th meeting, starting at 6:30pm. Look in the Tar Heel Rockhound for more information.

2) Auction information in newsletter.

3) New members: Jeff & Amanda R.,

4) Wild Acres Scholarship applications are due at the December 2025 meeting, so the winner can be announced at the January 2026 meeting.

The close of the meeting was 8:11PM.

Respectfully submitted by Dean Russell, CVGMC Secretary.

DECEMBER PROGRAM

There will not be a formal December program. The club will be holding its annual Christmas Party and auction. See information further in the newsletter.

IMPORTANT ANNOUNCEMENTS

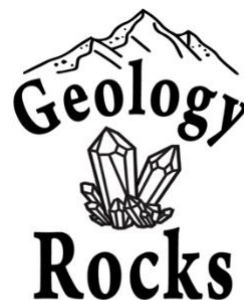
1. Remember applications for the Wildacres scholarship are due by December 8th.
2. The three final t-shirt patterns are shown below. If you did not vote during the November meeting, please vote on your favorite by sending me an email or text by Dec. 8th. The winning pattern will be announced at the December Christmas Party. Please take time to thank David I. for all his hard work on these wonderful designs. I look forward to seeing what the club t-shirt will be!



DESIGN 1



DESIGN 2



DESIGN 3

3. Starting in January the club will start a new program to encourage club participation. Every time you come to a meeting or help with an event you can put your name in a 'jar'. Every quarter we will randomly pull a name from the jar for a special door prize! It will be your responsibility to remember to enter your name each meeting
4. The theme for the March Gem and Mineral Show will be "Home Grown: Rocks, Minerals, Gems, and Fossils of North Carolina". I hope many of you will do a show case and share your amazing collections. The club discussed not having club awards this year. Instead we will let the public vote for a show favorite. This would remove any pressure and hopefully,

more people will participate. Also, feel free to enter cases that have an educational theme such as the rock cycle, mining, crystal types, how fossils are formed, etc....

To request a case please fill out the form attached at the end of the newsletter.

GEOLOGY MADE EASY: “POLKA DOT ROCKS”

This year, I acquired two unusual rocks. One specimen was bought at the Grassy Creek Gem and Mineral Show in Spruce Pine (See image 1). I found the second specimen near Artesia, New Mexico (See image 2). Rocks with these patterns are often called ‘polka dot rocks’, but technically, the bleached areas are known as reduction spots/spheroids. The spots can be spherical, tubular, lenticular, linear, or irregular in shape. They vary in size but are typically small, rarely exceeding 20 cm in diameter. Colors vary by location and range from white, light tan, light gray, to greenish. They form in porous sedimentary rocks such as sandstone, siltstone, certain limestones, red volcanic tuffs, and even some conglomerates.

Most reduction spots occur in ‘red beds’ that formed from continental sediments deposited in hot, arid, tropical to sub-tropical climates under oxidizing conditions. The sediment grains became coated with a layer of oxidized hematite, turning them red in color (See image 3).



IMAGE 1: This is Jacobsville Sandstone, famous for its unusual whitish spots and lines. This specimen only exhibits reduction spots. Photo by Tracie J.



IMAGE 2: This is another example of a rock with reduction spots. I collected this specimen in the Chihuahuan Desert near Artesia, New Mexico. Photo by Tracie J.



IMAGE 3: Here is an example of a red bed deposit in Selja Gorges, Tunisia.

[https://commons.wikimedia.org/wiki/File:Red butte, Selja gorges, Tunisia.jpg](https://commons.wikimedia.org/wiki/File:Red_butte,_Selja_gorges,_Tunisia.jpg)

When people find these unusual looking stones, they probably ask two questions,

- 1. What are these whitish spots, and
- 2. How do they form?

The whitish spots are the same material as the red matter, but the color has been altered or ‘bleached out’. Let’s look at a simple example. Red sandstone is red because individual sand grains are coated in a layer of oxidized hematite (See image 4). Hematite (Fe_2O_3) is an iron ore, and when exposed to oxygen, in the presence of water, it rusts or oxidizes, and turns red (See Table 1). But under certain conditions, some areas within the sandstone lose their red color because the hematite has become reduced (See Table 1). The latter is why the light colored spots are referred to as ‘reduction spots’. So, both the red and light-colored areas are sandstone; the color depends on whether the hematite is oxidized or reduced. In some cases, the reduced Hematite will dissolve and be leached out of the porous rock.

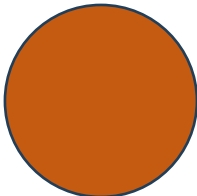
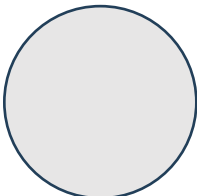
	
OXIDIZED IRON (Hematite)	REDUCED IRON (Hematite)
The iron atoms in the Hematite lose electrons	The iron atoms in the Hematite gain electrons
The electrons are transferred from the iron to oxygen or other oxidizing agents. Thus the iron has lost electrons and becomes oxidized.	Electrons are transferred to the iron from reducing agents such as hydrocarbons. Thus the iron gains electrons and becomes reduced.
Oxidized iron is bright red	Reduced iron is whitish to light gray to greenish

TABLE 1: Summary of oxidation and reduction of hematite.



IMAGE 4: The quartz sand grains on the left are from a beach and do not have a hematite coating. The sand grains on the right are coated with oxidized hematite hence their reddish color. Photo by Tracie J.

What causes Hematite to become reduced? There's a variety of reducing agents that could induce the formation of reduction spots. The exact process is poorly understood and may vary from location to location depending on the host material and other factors. Several possible methods are discussed below.

1. One theory is that organic matter, such as ancient vegetation, is mixed in with the sand grains as the sandstone is forming. As the vegetative material rots due to microbial action, it creates an oxygen-poor zone. Without oxygen, the Hematite in this zone cannot become oxidized, thus producing a light-colored zone, or reduction spot.
2. The grains that form sandstone and other sedimentary rocks are a mix of materials, including possible pieces of metal ores rich in cobalt, silver, zinc, etc. Some of these metals are more electronegative than iron (Fe) in Hematite. Electronegativity is defined as the ability of an atom to attract electrons and form bonds. Cobalt (Co) is more electronegative than iron (Fe). Therefore, if a particle of cobalt ore is present in the sandstone, it will pull the oxygen (and electrons) from the surrounding iron oxide. The cobalt becomes oxidized while the iron becomes reduced (Fe^{3+} to Fe^{2+}), resulting in the loss of its reddish color.

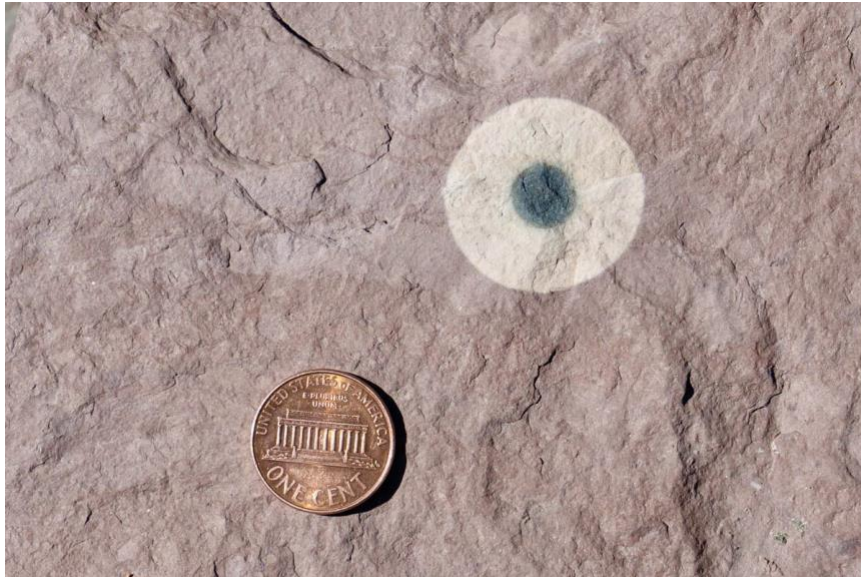


IMAGE 5: Reduction spot on red siltstone. Notice a locus or core of material in the center of the spot. This material could be remains of a fossil or some other organic matter.

https://geologypics.com/search-images/?_sf_s=reduction%20spot

Reduction spots occur worldwide. Some notable locations are listed below.

- Cretaceous red beds from the Jiaolai Basin, NE China
- Tumblagooda Sandstone, Western Australia
- Dorchester Cape, New Brunswick, Canada
- Strait of Pugwash, Nova Scotia
- North Berwick, Scotland

Examples of reduction spots can be found in red bed deposits through-out the US. But perhaps the best-known examples are from Jacobsville Sandstone deposits near Jacobsville, Michigan (See images 1, 6, and 7). The distinctive sandstone was quarried and used extensively for building material during the late 1800s and early 1900s. The sandstone was popular due to its durability, dark red color, and unique color variations. It could have spots, white lines, and be varicolored with areas of pink, white, and brown. Some red and white striped rocks are called “bacon-rock’ due to their similarity to fat streaked bacon. To learn more about “bacon-rock,” click on the YouTube link provided below. Jacobsville Sandstone was designated a Global Heritage Stone Resource.

The deposits are located in northern Michigan and parts of Ontario, Canada. Unfortunately, most of the Jacobsville Sandstone deposit is under Lake Superior. But spectacular cliffs and banks of Jacobsville Sandstone and amazing stone formations can be seen along the shoreline of Pictured Rocks National Lakeshore, near Munising, Michigan.

<https://www.youtube.com/watch?v=rxspwJDZ48>

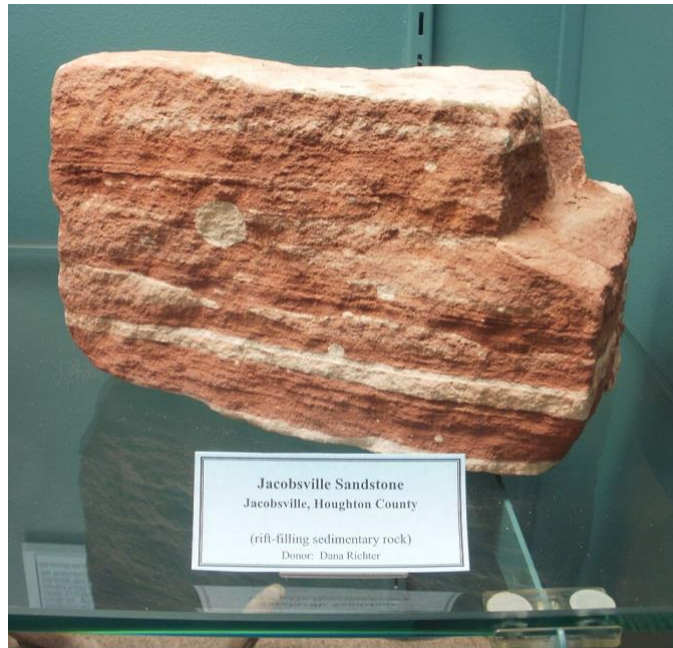


IMAGE 6: Here is a nice example of Jacobsville Sandstone. Notice the white reduction spots and bleached lines. https://commons.wikimedia.org/wiki/File:Jacobsville_Sandstone_sample_1.jpg



IMAGE 7: Jacobsville Sandstone was used in many buildings such as the Red Jacket Firehouse in Calumet, Michigan pictured above. The firehouse was built finished in 1899 and is on the National Register of Historic Places. Use through Creative Commons by Andrew Jameson

Hope you enjoyed learning about this interesting rock!

ANNUAL CHRISTMAS PARTY AND CLUB AUCTION

The Christmas party and Auction will be held on Tuesday, December 9 during the Club's regular meeting. The meeting will start at 6:30pm instead of the regular time of 7:00pm. The meal will be catered by Publix Deli again this year. Chicken tenders and several side dishes will be provided. All who attend are asked to bring a drink or dessert. The Club will provide the plates, cups, napkins, silverware and ice.

Come early, if you can, to help set up the room.



2025 DECEMBER AUCTION INSTRUCTIONS

It's that time of year for our annual auction. Anyone interested in participating in the auction (selling AND/OR buying) needs to have a number assigned to them (1, 2, 3, 4 etc.). Terry will have a list of numbers and stickers at the November meeting so you can sign up for a number and get stickers to label your specimens at that time. If you are not able to attend the November meeting and would like to participate, please call her (828-303-1563) to get a number. If you don't get a number and stickers before the December meeting, they will be available the evening of the auction, however please come early. Terry will be at the church by 5:45pm for anyone who hasn't signed up to participate and needs a number and/or stickers.

All specimens must be clearly identified with a sticker which should be coded with your assigned number because this is what will be used during the auction process. Please label your specimens as follows (using this example): if your assigned number is 2 and you plan to sell 5 items then the stickers should be labeled as 2a, 2b, 2c, 2d and 2e. **It is VERY important to label ALL specimens so the correct information is recorded.** This same number will also be your bidding number. Terry will have bidder cards at the meeting with the numbers on them for people to hold up when they are bidding. This process should keep things moving and will make it easier to record the sellers and buyers. **Please also include a description of the item.**

Items will be auctioned off in order to make it fair for everyone. It will go as follows: 1a, 2a, 3a...etc., then start over at 1b, 2b, 3b...etc. so label your items in the order that you want to sell them, with your best item being the first one. We will sell as many items as possible in the time that we have (ends at 8:45 PM). There is no limit to the number of items a Club Member can bring.

Anything rock related can be auctioned; this includes tools, cut stones, display boxes/cabinets, rough stones, jewelry, etc. Members will retain 100% of the sale price unless the member specifies all proceeds go to the club.

Please come early to preview the items and make notes (including the number on the sticker) of the ones you are interested in bidding on so that you will be ready when the item comes up for bidding. **To keep things moving, the items will not be walked around during the auction.**

Items will go up in price by \$1.00 increments per bid until it reaches \$25.00, then bidding will go up by \$5.00 increments per bid until it reaches \$50.00. Once it reaches \$50.00, bids will go up by \$10.00 increments per bid. Once the bid reaches \$100.00, bids will go up by \$20.00 increments per bid. Bidding increments can change at the discretion of the auctioneer. If you have an item that you want started at a minimum bid, please note it on the label ahead of time.

Remember, guests are welcome, so feel free to bring a friend. **They can bid on items, BUT cannot sell items.**

Payment method: Only cash or checks accepted, no plastic (credit cards).

WHAT'S HAPPENING IN OUR AREA

WHAT	WHEN	WHERE
Cape Fear gem and Mineral Show	DEC. 6 th 11:00 – 4:30	352 N Devers St Kiwanis Recreation Center Fayetteville, NC
Roanoke Valley Mineral and Gem Society Show	DEC. 28 – 30 th FRI: 2:00 - 6:00 SAT: 10:00 - 6:00 SUN: 11:00 - 4:00	1001 Roanoke Boulevard Salem Civic Center Salem, VA 24153
Catawba Valley Gem and Mineral Show	MARCH 3 -8th	1960 13th Ave Dr SE Hickory Metro Convention Center Hickory, NC 28602
Annual Gaston Gem, Mineral and Jewelry Show	MARCH 14 – 15th SAT: 10:00 - 6:00 SUN: 10:00 - 4:00	410 E Long Ave Gastonia Farmers Market Gastonia, NC 28054

2026 MEMBERSHIP DUES

Included in this month's bulletin is a blank 2026 Membership form. Terry will also bring some blank 2026 Membership forms to the January meeting. This membership form must accompany your dues in order for your name to be included on the 2026 club roster.

Family membership is \$25

Single membership is \$18

Please print **clearly and legibly** on the form so that your information can be updated accurately. **Honorary members must also fill out the form each year in order to keep the club records up to date and to maintain your honorary membership status.** You can send your payment and form to the Club PO Box (address on the membership form) or directly to Terry Russell at the following address:

CO: Terry Russell

5254 Olde School Drive

Hickory, NC 28602

2026 MEMBERSHIP INFORMATION FORM

Date: _____

Please Check all the Appropriate Boxes

☐ New Member ☐ Renewal

☐ Single \$18/yr ☐ Family \$25/yr ☐ Honorary \$0/yr

** ☐ Onetime fee for name badge \$10/person ☐ Quantity

** Spelling on badges ONLY IF PURCHASING any:

PLEASE PRINT CLEARLY & FILL IN ALL INFORMATION

NAME: _____

SPOUSE'S NAME (family membership): _____

ADDRESS (Street): _____

ADDRESS (City, State, and Zip Code): _____

MINOR CHILD (family membership): _____ Age _____

MINOR CHILD (family membership): _____ Age _____

HOME PHONE: _____ CELL PHONE: _____

E-MAIL ADDRESS: _____

*** Bulletins will be distributed by E-MAIL only ***

MAKE CHECKS PAYABLE TO: CATAWBA VALLEY GEM & MINERAL CLUB, INC.

MAIL TO: Catawba Valley Gem & Mineral Club, Inc

c/o Terry Russell

PO Box 2521

Hickory, NC 28603-2521

DUES (NEW MEMBERS ONLY) SHALL BE PRORATED AS FOLLOWS:

January 1 – June 30: full amount of annual dues

July 1 – September 30: 50% of annual dues

October 1 – December 31: full amount of annual dues shall apply as payment for the following year

FOR USE BY TREASURER ONLY: Amt Rec'd _____ Check # _____ Date _____

EXHIBIT APPLICATION

UNIFORM GEM, MINERAL, AND JEWELRY SHOW HICKORY METRO CONVENTION CENTER

Exhibits of minerals, fossils or gemstones are one way we can help to educate ourselves and the general public about our hobby. That is one of the main purposes of the Club. Hopefully many of you will choose to participate in this joint activity. Please fill out this form and return it by March 11th to Exhibits Chair, Catawba Valley Gem & Mineral Club, P.O. Box 2521, Hickory, NC, 28603-2521 OR to Tracie Jeffries, botanynerd89@gmail.com

DESCRIPTION OF EXHIBIT:

SELECT YOUR CASE REQUIREMENTS:

_____ I will furnish a case of the following dimensions: W_____ D_____ H_____

_____ I will need a club case. Please check preference:

_____ Regular 40" W X 19" D X 22" H

_____ Larger 48" W X 24" D X 24" H

_____ I need a case with risers.

The exhibit should be set up by Thursday, March 27th between 4PM and 9PM, and removed at the end of the show at 5 PM, Sunday, March 30th. If you are unable to meet this schedule, please contact the Exhibits Chair about making other arrangements.

SECURITY AND LIABILITY:

Professional security will be provided around the clock, beginning at 4PM on Thursday and ending at 7PM on Sunday. The Catawba Valley Gem & Mineral Club will take all reasonable precautions to protect property and person of each exhibitor, however, it is mutually agreed that Catawba Valley Gem & Mineral Club, Inc, or its members shall not be liable for any damage to or the loss of any exhibit. This includes the property of the exhibitor or injury to his/her person resulting from any cause. All claims for any such damage, loss or injury are expressly waived by the exhibitor.

Submission of the signed application for exhibitor's space constitutes acceptance of ALL the rules and regulations as outlined herein and releases the Catawba Valley Gem & Mineral Club, Inc., or its members from all liability as outlined above.

Signature of Exhibitor: Date:

**Tar Heel Rockhound
Official Publication of
Catawba Valley Gem and
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Volume 55 Number 12

Club Meetings

2nd Tuesday of Month, 7:00PM

St Aloysius Catholic Church

921 2nd Street NE Hickory, NC

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Tracie Jeffries Editor
PO BOX 2521
Hickory NC 28603-2521
<http://www.cvgmc.com/>



Organized 1969

