

# *FRIENDS of MINERALOGY* *Midwest*



**A very nice calcite / pyrite micro - Barret Paving, Miami County, Ohio**

Johan Maertens

## Chapter Newsletter for September – October 2022

# Treasurers Report

The Midwest Chapter currently has a total of \$9443.44 in our treasury. We settled our dues credit with the National chapter and are now all paid up for our current membership. We currently have 77 members and this has been trending down for a few years now. The chapter is in desperate need of members willing to serve as President and Vice-president for 2023! It is also time to begin planning for a symposium. Please consider volunteering! As always, please contact me if you have any questions about membership status.

Jeff Spencer – Treasurer

Friends of Mineralogy Midwest Chapter

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## ***A word about our Williamsport trip – Reggie Rose***

### Collecting - Extracting vs. Gathering

When we go to a quarry to collect specimens, the word “collect” can be divided into two cases. In most cases "collect" means that we are "extracting" specimens from boulders using hammers and chisels, drills or saws. In some cases, the word "collect" means "gather" where specimens are on the surface. As collectors, we know that "gathering" is easier and more preferable to "extracting."

There are both kinds of "collecting" at Williamsport. From the blast rock we can "extract" the minerals typical to this quarry (e.g., calcite, barite, etc.). In certain areas of the quarry, marcasite has been available for gathering. Putting the two types of collecting in perspective, let's consider how each is generated. Specimens available for extraction are generated when the quarry blasts to produce the product it sells. If a quarry is busy making large amounts of product, it may blast as frequently as once a week. So, if you would visit a quarry and go back a month later, on your second visit you would be looking at a lot of fresh rock. Marcasite has been found in certain areas of this quarry. Marcasite exists in areas where the quarry has dumped overburden. Over time the clay-rich overburden washes away, revealing the marcasite. Over time is the key phrase here. It takes years for marcasite to reveal itself from the overburden. Once an area has been collected, it takes years for the area to recover to produce marcasite in even moderate amounts. Despite our absence during the pandemic, the areas of overburden at this quarry have been picked over during the last several years. If you filled up your collecting container with marcasite in a couple hours from a prior trip in one area, you might not fill your container now if you were given access to collect in all the overburden areas.

Because overburden regenerates its specimens so slowly, we will leave the opportunity to collect marcasite up to our host. He knows where overburden has been dumped and what overburden has been collected, and what overburden is fresh, if any. Additionally, for a reason never explained to me, raking down through the overburden does not unearth additional marcasite. In prior trips we spent the majority of our time collecting marcasite. Marcasite-rich overburden may not be available at this time.

I have provided this explanation at this time, so that if we get to collect marcasite, you won't be disappointed if the area is relatively unproductive. If there are no fresh areas of overburden, then don't be disappointed if we don't get to collect marcasite for quite some time.

# Quarry Travel Guide

**Williamsport; Saturday August 27, 2022; 8am - 1pm 2022**

**Field Trip Locality:** Melvin Stone – Williamsport Plant

**Address:** 13124 Crownover Road, New Holland, OH

**County:** Pickaway

**Date of Trip:** Saturday August 27, 2022

**Time of Field Trip:** 8:00 am – 1:00 pm (check-in from 8:00 am – 8:30 am)

**Clubs Attending:** Friends of Mineralogy Midwest

**Designated Travel Point:** Junction of I-71 S, exit 84 and Ohio route 56 W (south)

**Travel distance from designated point:** approximately 13.7 miles

**Travel time from designated point:** 0:23

**Age of the rocks exposed:** Devonian

**Rock units exposed:** Columbus Limestone

**Mineral specimens present:** calcite, dolomite, marcasite, pyrite

**Fossils present:** (Paleontology by Brian Bade)

The Columbus Limestone has corals (horn and colony), bryozoans, mollusks including gastropods (snails), pelecypods (clams), cephalopods, rostroconchs, brachiopods, crinoids, blastoids, trilobites, and rare bony fish plates and teeth

**Training Required:** MSHA

**Quarry Location:** Since collectors will be coming from different directions:

## **From the west:**

Take I-70 E to exit 72; this is the Ohio Route 56 exit; take Route 56 SE into Mt. Sterling; \*when in Mt. Sterling, you will come to the junction of 56 and US Route 62, turn right (south) onto Route 62W. After a short distance you will come to a Y in the road, the right branch in the Y is Route 62 W, the left branch is Ohio Route 207 south. Take the left branch, 207 South. Along the way you will pass through the town of Pancoastburg. After entering Pancoastburg, continue south on 207 south for about another 3.0 miles where you will turn left onto Mouser Road. This road runs NE then north; take it until the road dead ends into Crownover Road approximately 1.5 miles later. At the dead end, turn right (SE) onto Crownover Road. The entrance to the quarry will be about 500 yards on the left. The quarry is adjacent to Deer Creek Reservoir.

**\*From south, north and east of Columbus:** access I-71 to exit 84 which is Route 56; take route 56 into Mt. Sterling and pick up the directions at the asterisk above.

# John Medici - In Memoriam

By Johan Maertens

The mineralogical and athletic world lost one of its tall enthusiasts in July 2022, with the passing of Cincinnati Mineral Society member Dr. John C. Medici from Ostrander, Ohio.

I cannot summarize John's entire life and accomplishments, having known him for just 4 years including a two-year pandemic hiatus. Just enough to be duly impressed and for building fond memories of meeting John.

After returning to live in the Mid-West, I read about local collectors and tried to make connections to familiarize myself with the region, its localities, minerals and personalities. I was quite excited to meet a few people. John Medici was one name on that list and I met John for the first time during a mineral collecting field trip. You could not miss John, a tall six foot plus, athletic man. One of the first things one met when approaching John, was a big smile. John always looked happy and excited when meeting people. He shared anecdotes about his seemingly unlimited experiences. Once engaged in a conversation, John would forget about time and he could narrate about events for quite a while. His memory was great. John was easy to approach, and while endowed with expansive collecting experiences, knowledge and skills, he exhibited modesty. While hearing fantastic stories about specimen recovery from classic and other localities, there was never a bragging tone. Spending more time with him, one learned John was well read about many topics and regional and world events and he would gladly share his insights, never imposing, but rather curious and engaging.

John built a collection largely through "dogged" field collecting and the pursuit of top specimens, building his experience through field work, study and engagement with other collectors.

In John's own recent words:

"I'm not in academia, I'm not a museum curator. My business is not minerals, that's not my living and I never took a geology or mineralogy course.

The fun in our family is getting out and doing the easter egg hunt type atmosphere field collecting and that's probably the most fun for our everyone in our family: Getting out in nature and being able to just concentrate on collecting. So that's what we have done. My personal collecting history approaches 60 years. I'm past 80 and as long as I can still get out and handle a rock pile in the quarry, I will be very happy about it."

For John, collecting as a family was important. John, Betsy, Brett, Eric and Jay were often out collecting together in the field. John understood that collecting made him and his family happy and he spread that joy to others. Many of us have experienced John's kindness and patience helping collectors obtain good specimens during field trips.

John preserved exceptional specimens from around the United States. John specialized in minerals of Ohio and the Herkimer district of New York but has collected in over half of the states in the US and many sites in Ontario and Quebec. He offered many of his best specimens at discounted prices or by donation to numerous museums, many of which are on display for the public to enjoy.

John's articles and photos of his specimens have appeared in every major mineral magazine, including The Mineralogical Record and Rocks & Minerals. He co-authored two chapters in the book American Mineral Treasures. He has been a featured speaker at numerous mineral symposia including The Dallas Mineral Collecting Symposium, the Friends of Mineralogy Midwest Mineralogical Symposium, and the Rochester Mineralogical Symposium, and has won awards for his self-collected specimens at national and regional gem and mineral shows. John was inducted in 2005 by the American Federation of Mineralogical Societies to



the national Rockhound and Lapidary Hall of Fame and in 2020 he was the recipient of the Carnegie Mineralogical Award.

John's diverse interests never stopped surprising me. I once bought a few minerals from him just to obtain an assortment of various custom labels he made. Every label had an artful custom logo and each had a personal story for John, he was happy to share.



John realized his health was declining, yet never complained about his personal challenges and was always hopeful for cure and recovery.

He asked me a few times to come visit Betsy and him. "The pool is open." John was an avid swimmer. I last talked with him at Geofair 2022 and promised we would see each other in July. I received the notice of his passing literally two hours before I was going to call him asking for a meet-up in Ostrander in the Summer. John, we met in July but in very different circumstances. We will find another way to communicate.

John inspired us through his caring, sharing and helping with field collecting.

John collected more than minerals; he collected people.  
I miss him, as will his many friends.

Unfortunately, we have also received word that Ruth Carlson, Ernie's wife passed away in July. No additional details are available at this time.

# **Evaluating A Fluorescent Barite Specimen from Rolla, Phelps County, Missouri**

**by Calvin Harris**

## **Introduction**

Barite ( $\text{BaSO}_4$ ) is a mineral that forms in low-temperature (50-200°C) environments. It is often found in sedimentary formations associated with zinc and lead ore deposits. As a species, its occurrence is widespread. Locations where this mineral is collected because of its luminescent properties are well known throughout the United States and other countries. Examples of these locations include Hardin County, Rosiclaire, Illinois; Pugh Quarry, Wood County, Ohio; Machow mine, Podkarpacie, Poland.

While the effects of ultraviolet radiation on barite from several locations have been studied, attention regarding fluorescence and phosphorescence of barite from Rolla, Phelps County, Missouri is scant. As a result, a sample from this location was selected for investigation. Interestingly, this specimen has pathways that allowed fluorescent and phosphorescent mineralized fluids to solidify and a matrix that exhibits these qualities. This paper explores the possible effects caused by four wavelengths of ultraviolet radiation on barite and the other constituents of this specimen.

## **Geological Setting**

Briefly, Rolla, Phelps County is one of four limestone quarries located in the southern region of Missouri that belongs to the Jefferson City formation. The formation developed during the Cambrian, Ordovician or both periods. Jefferson City limestone is identified as second magnesian limestone and characteristically, it is fine-grained, light gray to buff colored dolomite- limestone. In particular, Rolla consists of Cambro-Ordovician period limestone.

## **Specimen Description**

The barite is a cluster of thin, tabular, parallel growth crystals and measures 8cm × 3cm × 0.5cm. The crystals have a pale, honey color appearance and is translucent when viewing perpendicular to their c axis using a light source. There is evidence of slight dissolution restricted to the outer edges of the crystals. The barite is associated with a matrix, possibly limestone.

During observation, it is apparent that there are numerous pathways for mineral bearing fluids to transverse and solidify. These solidified mineral fluids (**SMF**) exhibit fluorescence and phosphoresce that exceed the brightness exhibited by the barite, hindering the assessment of this mineral.

The matrix is suspected to be limestone because of its known association of barite from this area and is characterized by its gray coloration according to mindat.com. The matrix is adjacent to the crystals and is slightly less than half the size of the entire specimen. Additionally, it is associated with small marcasite crystals. It is likely that porosity of the matrix provided pathways for mineral bearing fluids to solidify.

## **Testing Procedure**

Evaluating the specimen was gained by using a thin non-fluorescent card to isolate the barite and matrix independently. Fluorescence was determined by placing the ultraviolet source 3-4 inches from the specimen.

Phosphorescence was determined by placing the ultraviolet source some 1-2 inches from the specimen with an exposure time of approximately 20 seconds. Testing for phosphorescence proceeded fluorescent evaluation to minimize the need for eye sensitivity adjustment. Four sources of ultraviolet radiation were used. The sources emitted the following wavelengths: 254nm, 312nm 351nm and 370nm.

### **Observations and Findings**

#### **Barite, Solidified Mineral Fluids (SMF)**

<b><u>Wavelength</u></b>	<b>Shortwave (254nm)</b>	<b>Mid-wave (312nm)</b>	<b>Longwave (351nm)</b>	<b>Longwave (370nm)</b>
<b><u>Fluorescence</u></b>	<b>Barite:</b> Tan coloration, moderate intensity; <b>SMF:</b> lemon-green, bright intensity.	<b>Barite:</b> Tan coloration, moderate intensity; <b>SMF:</b> lemon-green, bright intensity.	<b>Barite:</b> Tan coloration, moderate intensity; <b>SMF:</b> lemon-green, moderate intensity.	Similar to Longwave (351nm).
<b><u>Phosphorescence</u></b>	<b>Barite:</b> Tan coloration, moderate intensity; <b>SMF:</b> olive-green, moderate-bright intensity. 5-second duration overall.	<b>Barite:</b> Tan coloration affected with lime coloration, moderate intensity; <b>SMF:</b> lemon-green, moderate bright intensity. 6-second duration overall.	Response similar to Mid-wave (312nm) except moderate-low intensity ( <b>Barite</b> ); moderate intensity ( <b>SMF</b> ). 5-second duration overall.	Response similar to Longwave (351nm) except very low intensity ( <b>Barite</b> ); low intensity ( <b>SMF</b> ). 5-second duration overall.

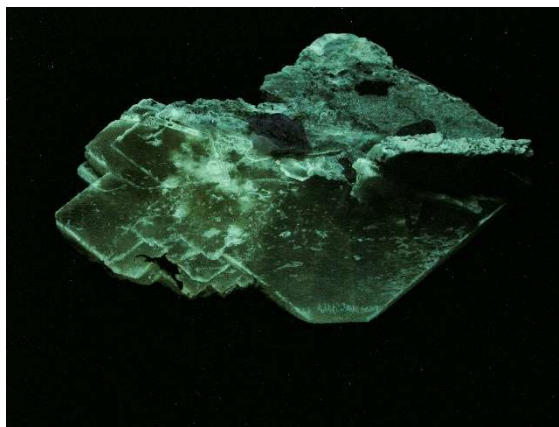
#### **Matrix**

<b><u>Wavelength</u></b>	<b>Shortwave (254nm)</b>	<b>Mid-wave (312nm)</b>	<b>Longwave (351nm)</b>	<b>Longwave (370nm)</b>
<b><u>Fluorescence</u></b>	Bluish-white coloration, moderate-bright intensity.	Bluish-green coloration, moderate-bright intensity.	Lime-green coloration, moderate-low intensity.	Bluish-white coloration, moderate intensity.
<b><u>Phosphorescence</u></b>	Olive-green with minor tan coloration, moderate-bright intensity, 5-second duration.	Similar to Shortwave (254nm), except moderate intensity. 6-second duration.	Greenish-gray coloration, low intensity. 3-second duration.	Gray coloration, very low intensity. 3-second duration.





Barite – Daylight



Barite mid-wave 312nm



Barite longwave 370nm

### **Discussion**

Concerning barite, the different ultraviolet wavelengths produced similar fluorescent responses in terms of color and intensity. The phosphorescent responses displayed a shift in coloration with longer wavelengths. In addition, intensity and duration diminished with longer wavelengths.

The solidified mineral solution produced similar fluorescent responses, but diminished intensity with longer wavelengths. The phosphorescent responses exhibited a color shift and diminished intensity with longer wavelengths. The duration was fairly consistent.

The coloration regarding the fluorescent response of the matrix was consistent except longwave (350nm). Phosphorescence exhibited a color shift, diminished intensity and duration with longer wavelengths. Shortwave (254nm) and mid-wave (312nm) wavelengths produced approximate duration times.

Additional study may address the following concerns:

- Identifying the type of activators causing fluorescence and phosphorescence
- Describe the mechanisms of the findings presented
- Describe the mineralogical conditions related to the source of the activators
- Determine how the pathways in the barite and matrix developed

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## MARBLEHEAD: A MOST UNUSUAL DAY – Reggie Rose

On Saturday July 09, 2022 there were 24 adventuresome FMers in 17 vehicles who "invaded" Ohio's largest quarry owned by Lafarge in Marblehead, Ohio.

The reason the word invaded is chosen here is because as our caravan meandered down to the pit, we were sporting our safety flags, amber flashing lights and colored reflective stripes. This prompted the man running the front-end loader to describe us as a "military parade."

Fortunately, Mother Nature gave us respite with the temperature in the low 80s and fair skies, an escape from the inferno we call the summer of 2022. As you can already see, this was a "most unusual day" with flags, flashing lights, striped vehicles and nice weather. This "most unusual day" phrase is part of a title originating from a 1950s song popularized by Jane Powell, Elizabeth Taylor, Judy Garland, Dinah Shore and Beverly Kinney. Have you noted all the listed musical stars are female? July 9th was also an unusual day for FM in the gender department. Five FM ladies were amongst the collectors; their presence gave the day a more family atmosphere. Kudos to all five for attending. Patti Baumgartner and Kit Howard were in attendance. But do you know what was unusual about the other three women? They are all named Amy. Amy Dewitt, Murray and Wagner were part of our merry band. I was able to get a photo from Amy Dewitt who had a nice fluorite which was special on this day because I did not see much fluorite either to store in my own vehicle or collected by others. In addition to Amy Dewitt, Tom Bolka had a colorful fluorite. These two purple fluorites were the best I saw all day.

In fact, if FM stalwart Randy Marsh hadn't had mercy on me and donated a fluorite, I would have taken home only a couple of purple smears. Speaking of Randy, he had a rather nice collecting day, he hit calcite pockets that made even Mr. Calcite green with envy (yes, folks, we really have a Mr. Calcite in our midst.)

Getting around to collect newsletter photos is always a bit of a challenge. But two factors make Marblehead a tough photo assignment despite her occasional prized specimens. The first one is that Marblehead is such a large quarry that I saw some collectors only briefly despite a long day. And the second factor is that Marblehead can sometimes be a stubborn lady, not giving up her prizes easily.

Yet, outside of Randy's banner calcite day, there were four of our collectors for whom Marblehead was no match. Joe Vasichko and Scott Kell both took home black fluorites. (No this is not a misprint – they found very unusual black fluorite!) In the who's is biggest (honker) category Mike had a good day. Mike who you ask? Both of them I say. I probably could have extracted a similar sentence from a past field trip and said that Mike means Royal and Scaglione. Mike Royal found a huge pocket with popcorn calcite and fluorite which I photographed from the back of Randy's car. Mike Scaglione took home an equally large calcite - barite - fluorite. Even this author took home a 40 lb. rock with at least 43 calcite scalenohedrons on it. But when he got home, he got greedy, and while trying to thin the specimen, the calcite honker fell into two pieces. Nice work. He should stick to writing field trip reports.

So why was Marblehead "so unusual" this year? Not because she is stingy with her specimens; not because Mike and Mike had a good day. Those items are normal. She was so unusual because she was not an inferno, and because she gave us five nice lady member collectors with three of them answering to the name Amy. All in all, with their presence and fair skies, this was a lovely day.



**Amy Dewitt - Fluorite**



**Randy Marsh - Calcite**



**Joe Vasichko - Black Fluorite**



**Mike Royal - Calcite/Fluorite**

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[www.fommidwest.org](http://www.fommidwest.org)

### **National Website:**

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