



Western Dakota Gem & Mineral Society  
P.O. Box 1944  
Rapid City, South Dakota  
57709-1954

Here are some funnies that can be found at [Naturally Funny.com](http://Naturally Funny.com).  
These are by David Hudson

What did the mineral say to its geologist owner? "I ore you a lot!"

Why don't minerals ever get in trouble?  
They always follow the sedimentary rules!



# THE AMMONITE

Affiliated with RMFMS & AFMS

Next meeting Christmas party and Potluck:

**6:00 p.m.**

**November 13, 2025**

**Lions Building**

**Central States Fairground**

**800 San Francisco Street**

It is always rock hunting time!

The Purpose of our Non-Profit Club is to promote interest and education in geology, mineralogy, paleontology, archaeology and lapidary, to sponsor and promote the coordination of work efforts between groups and individuals.





## The Ammonite Western Dakota Gem and Mineral Society

### 2024-25 Officers

<b>President:</b>	Kelli Wold	605 381-6418	kelliwold24@gmail.com
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**CLUB Mailing:** Western Dakota Gem and Mineral Society, PO Box 1954, Rapid City, SD 57709-1954

**CLUB Website:** [www.WDGMS.org](http://www.WDGMS.org)

**CLUB Facebook:** Western Dakota Gem and Society/groups

**CLUB Email:** [westdakota.rocks@gmail.com](mailto:westdakota.rocks@gmail.com)

**Meetings:** Second Thursday of each Month (except August) at 6:00 PM (times can change)

**At:** Lions Building, Central States Fairgrounds, 800 San Francisco Street, Rapid City, SD 57701

**ANY SUBMISSIONS FOR THE NEWSLETTER SHOULD BE IN BY THE 25TH OF EACH MONTH**

Any questions about the material found in the Ammonite please contact the editor:

Deborah Vick, 265 Stumer Rd Apt 7, Rapid City, Sd 57701

If you change your address, email address or have a problem receiving a newsletter:

*Please Contact the Treasure at [westdakota.rocks@gmail.com](mailto:westdakota.rocks@gmail.com)*

**Dues:** \$15.00 per person - \$20 per family with children under 16 years – Includes 12 newsletters by e-mail. If you chose to receive the newsletter by mail, there is an additional \$10.00 fee. Dues cover the RMFMS insurance and an electronic copy of the newsletter.

**Send dues to Treasurer, PO Box 1954, Rapid City, SD 57709-1954**

## **November Minutes**

The meeting was called to order at 6:00 pm by Kelli Wold.

Welcome to all guests.

Debbie Vick motioned to approve October 9<sup>th</sup>, 2026, minutes. Pete Lyesnko seconded the motion. Motion approved.

Alan Dorland gave the treasurer's report. Debbie Vick made the motion to approve the treasurer report. Pete Lyesnko seconded the motion. Motion approved.

Debbie Vick made the motion to transfer \$4,000 from the show account to the club account.

Alan Dorland seconded the motion. Motion approved

Leslie Lyesnko made the motion to have Kelli Wold sign a one-year contract for the new meeting place. Located in the Lion's building on the Central States Fairgrounds. Rob Wills seconded the motion. Motion approved.

The membership dues are due for the upcoming 2026 year.

Fifteen people attended the field trip to Dinosaurs of the Hell Creek Museum. Louie did an excellent job giving the group a tour of the museum.

Debbie Vick show chairperson reported we have thirteen paid vendors for the upcoming 2026 show. Talked about having a theme named show next year and having a bingo type scavenger hunt involving the vendors. Debbie Vik would like more involvement in the Rocky Mountain Federation show. 2026 show is in Tulsa Oklahoma. Discussed offering free spaces to non-profit organizations and placing them in the GenPro building. Will be announcing the next show meeting time and place.

The December meeting will be our Holiday Party. Bring a gift for the gift exchange. This will be a potluck with the club providing the ham. Please look at your emails for the sign-up sheet for the potluck. We will be playing ROCK BINGO! It is playing bingo with rocks. Super fun and hope to see all of you there.

Lori Bickford asked for evergreens and craft supplies for making centerpieces for the tables. Wendy Eggers volunteered to help Lori.

Rob Wills will be posting more on Facebook and the website. If you have any pictures of rocks you find, or anything else. Please send the information to the Western Dakota Gem and Mineral Society messenger page.

John Osborn is selling his dad's rock collection. If anyone is interested in the collection, please contact Kelli Wold.

Renee Saunders has volunteered to be the Jr Rockhound contact person when the club gets this program up and running.

Jamie Brazena brought up to the club we should invest in a computer and projector for club and speaker use.

The club is looking for field trips and speaker ideas. This is your club, and we want everyone's input.

The club would like to plan out field trips and speakers for the next year. This way you can plan on ahead.

The speaker for January 2026 will be Jamie Brazena on Baker Ranch Geodes.

Debbie Vick made the motion to adjourn the meeting. Pete Lysenko seconded the motion. Motion approved.

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### **President's message**

Thank you to all that came to the rescheduled meeting.

We had positive feedback on the new location. It was voted in as our new meeting place going forward.

Remember the December meeting is our Holiday Potluck. Bring a gift exchange if you would like.

We will be playing ROCK BINGO! Come and have some fun!

This is your club, and we would love your input on places for field trips and the type of speakers we should have. The goal is to have the field trips and speakers all lined up for the year. This way you can plan ahead.

The board/show meeting will be on January 17th at 10:00 am at the library. All are welcome to come and give your input.

#### **Treasurer Notes:**

Club Account – The CLUB account had the October raffle deposit of \$30, paid Sept. rent & Ammonite costs of \$20.00.

Show Account – Deposits of over \$3,500 for 12 Vendor contracts and \$292.19 from Peter Lysenko for the unsold “gold dirt” purchased for the 2025 Show.

***You will be receiving a separate email regarding the December potluck! Sign up at this link to bring a dish & have some fun at the Club Holiday Celebration!!!***

<https://www.PerfectPotluck.com/VTSF7242>

Membership is going strong! There are new membership forms to be filled so please contact Larisa Bailey (call or email 605-580-5192 / [baileylarisa@gmail.com](mailto:baileylarisa@gmail.com))

**CANVAS BAGS FOR SALE!!! \$10.00 at meeting**  
**Support your club and gain an attractive, sturdy tote-bag**

**Western Dakota Gem & Mineral Society**  
**Annual Christmas Party and Potluck**  
Thursday, December 11, 2025 starting at 6:00 PM  
Lions Building, Central States Fairground

Food  
Fun  
Gift Exchange  
Rock B-I-N-G-O

To sign up for the potluck please click on this link:  
<https://www.PerfectPotluck.com/VTSF7242>

**Gift exchange - If you would like to participate – please bring a wrapped gift no more than \$15 – rock related**

Here is the third and final part of Alan Dorland's article on Understanding Fluorescence

## Understanding Fluorescence (Part 3)

Alan Dorland

In part 1 of this series we discussed what "fluorescence" is, its many everyday applications and what causes an object to fluoresce. In part 2 we discussed some of the science behind fluorescence. In this part 3 we'll talk about safety precautions, equipment and resources.

### Safety Precautions

Ultraviolet radiation is generally broken down into three segments, UVA, UVB, and UVC based on their wavelengths. Each contains a certain amount of energy and each has the ability to cause damage. The sun emits all three segments of ultraviolet (UV) radiation. UVC is the greatest offender but fortunately, none of the sun's UVC makes it through the earth's atmosphere. All three segments can cause skin damage like burns, premature aging, and skin cancer and each type affects your skin differently. Eyes are particularly susceptible to damage from UV rays. The light from UV flashlights, regardless of the wavelength being used should NEVER be directed at the eyes.

UVA rays (315 to 400nm – "Long Wave") account for 95% of the sun's radiation that reaches the earth's surface. They can cause wrinkles, sunspots, and other types of premature aging. They are also strongly linked to skin cancer. They can penetrate the middle layer of your skin, known as the dermis. Used in tanning beds, UVA can penetrate the skin's second layer. UVA plays a major part in skin aging and wrinkles and contributes to some types of sun damage. UVA can penetrate uncoated glass and clouds.

UVB rays (280 – 315nm – "Midwave"), which affect the skin's top layer (the epidermis), cause skin cancer and most sunburns. UVB is the chief cause of skin reddening and sunburn as it tends to damage the skin's top layers. Prolonged exposure is strongly linked to cancer and damage to the skin's DNA. UVB burns unprotected skin in as little as 15 minutes and the intensity varies by season, location and time of day.

UVC rays (100 – 280nm = "Shortwave") are the most dangerous because UVC is the shortest wavelength and contains the most energy. While UVA and UVB rays pose the greatest risk for sun damage, people who work with *inorganic* sources of UVC radiation (such as specialty UV flashlights and germicidal UVC lighting that kills DNA) may be exposed to UVC rays which are **very damaging to living creatures**. UVC is sometimes used to sterilize laboratory equipment or to purify water and surfaces by killing microbes. UVC isn't able to penetrate earth's atmosphere. So while UVC is the most dangerous because it's the shortest wavelength, it's not a risk to the typical person. UVC that's emitted by the sun is absorbed completely by the earth's ozone layer. UVC rays are dangerous when not used properly and demand a high level of respect and caution.

If you haven't already come to this conclusion, the message here is for the users of UV to PLAY IT SAFE.

Use a broad spectrum sunscreen of at least SPF 30 blocks up to 97% of the sun's rays.

Use protective UPF clothing and long-sleeved shirts should be strongly considered to cover exposed arms, legs, feet and hands when working with UVB and especially when working with UVC.

When handling UV lights, especially UVB and UVC, it's a good idea to wear black nitrile disposable gloves. These are relatively inexpensive and available at almost all hardware stores.

Use sunglasses or safety lenses/eyewear with UV coating. The major weak points in the human body are our eyes so protect them! Never, ever, shine UV light into the eyes of any living creature!

## **Equipment and Resources**

**UV Lights and Chargers.** In mineralogy we generally use ultraviolet (UV) flashlights as sources of energy. Display lights are also used, and our club uses one for our annual rock show! General agreement is that a 365nm (Long Wave) light is the best one to get started with. Lights with wavelengths at 255nm (Short Wave) and 310nm (Mid Wave) are also good to have for general use. Light technology is growing quickly and many available specific wavelengths are now available, especially when hunting in specific geographic areas for specific minerals.

Lots of sources are available for UV lights. Like anything else they have a place within the quality and performance spectrum so you need to do some research. Cheap and ineffective lights are available everywhere. The filter lens of the flashlight blocks out the vast majority of visible light that's not the lights selected wavelength and you definitely don't want a light without the filter. If the filter lens is clear, stay away from it. Even with a filter we still see a small amount of purple light because the filters aren't precise enough to block everything, but the filters do a pretty good job of eliminating light we don't want to see! Quality of the filter is a key component and a large contributor to the price you pay for a good quality flashlight.

FS Hunter. Owned and operated by John Dean, FS Hunter is my "go to" source and I've purchased multiple times from him since 2023. John can be PM'd via his Facebook page, "FS Hunter, Buy, sale, trade" - <https://www.facebook.com/groups/5136966402981581>

John is a builder, not a reseller. His mission is to build the very best flashlights at the most reasonable cost. He posts videos on his tests comparing his lights to others in the market and stands behind his work. John is a very active and traveled field hunter so he understands what people need in the field. He currently offers five styles, each available in LW, MW, and SW with pricing ranging from \$35 up to \$230 for the most expensive configuration. Pricing varies depending upon size and wavelength. For a beginner he offers the "Hunter C8+" model in 365nm with two batteries and a charger for \$55! Lifetime guarantee and full service. If you're interested in flashlights you need to include him in your research!

Engenious Designs. <https://www.engeniousdesigns.com/> I have no personal experience with this company but hear they're pretty good. This is the company that built the light bar that we use in the clubs' show display. Their flashlight pricing seems much higher than what's available from John Dean.

uvBeast. My first and still primary UV light was purchased through Amazon. It's the V3 365nm (UVA) Black Light UV Flashlight made by uvBeast. I paid about \$80 for it and purchased it before I knew of John Dean. It's been a good light for me, has held up well and I have no complaints.

Battery Chargers – Ensure they will accept the two most commonly used batteries, size 186650 and 26650. I'm also seeing some 21700 batteries beginning to be used. Be sure to have some extra fully-charged batteries on hand because UV flashlights tend to use a lot of power! If possible, look for chargers that will also operate using your vehicle's cigarette lighter, ("DC charging port" for our younger readers).

**For field hunting at night** here are a few things you'll want to have with you:

Cyalume chemical glow sticks. I like the military grade because they're brighter and last longer.

Snap and shake for 12-hour light duration. Use to mark your trail and vehicle location so you can find your way back. Be sure to pick them up on your return and safely dispose of them. They're less than \$2 each and available on Amazon in a variety of colors.

Paracord having light reflective outer wrapping. Walmart usually carries.

Battery operated headlamp, preferably having options to select white, red, and blue lighting. Lots of options available. Be sure to carry extra batteries, usually size AA or AAA.

Insect repellent. Insects are **very** attracted to UV light and the heat emitted by flashlights, *especially* at night. They can really be a nuisance! I've seen a number of videos of people in the upper Midwest wearing mosquito netting over their face and neck.

### **Protective equipment (PE) when working with UV light**

Eye Protection tops the list for protective equipment regardless of use during day or night. Many safety glasses are rated as protecting against UVA, B, and C. As it relates to the level of protection they provide, I'm told that it doesn't make any difference whether the glasses are yellow or clear.

The ones I usually use are clear. A good way to test the effectiveness of the protection is to shine a UV light through the lens onto a piece of white paper. If you only see a lens-shaped shadow on the paper, the lens is blocking the UV! I'm told that most polycarbonates do a good job at blocking UV and that most eyeglasses these days are ground from polycarbonate. There are lots of sources on Amazon and most hardware stores and you don't need to spend a fortune on them. Shop around but be sure they provide protection for all categories of UV.

Black Nitrile Disposable Gloves. Protects exposed hands, especially when you're inspecting specimens. Relatively low priced and available in most hardware stores and on Amazon.

Wide brimmed hat to provide further protection for scalp, face and neck. Some hats have a flap that extends over the back of your neck and I think these are a good idea.

Sunscreen. Get a broad spectrum product that will provide a minimum of SPF 30 protection. Don't be afraid to apply it liberally.

Boots. If you're going to be doing field work, day or night, get a good pair of water resistant sturdy boots to protect your feet. Aside from protecting your ankles and feet, they provide some protection against low snake bites. If snake bites are a high concern you may want to get a pair of gators to protect your calves. Available on Amazon and stores like Cabela's and Scheels.

[https://www.amazon.com/s?k=snake+gators&crd=1LK3HQDL99A1Q&srefix=snake+gator%2Caps%2C252&ref=nb\\_sb\\_ss\\_p13n-pd-dplr-ranker\\_1\\_11](https://www.amazon.com/s?k=snake+gators&crd=1LK3HQDL99A1Q&srefix=snake+gator%2Caps%2C252&ref=nb_sb_ss_p13n-pd-dplr-ranker_1_11)

Regardless of whether you're hunting in the day or night, never hunt alone. Be sure to let family members know where you're going to hunt and when you expect to return. And whenever you hunt, keep your cellphones charged as much as possible and keep them with you. A phone left in your car won't do you any good should an emergency occur in the field.

### **Favorite Facebook Pages**

"FS Hunter" – a private group for discussions about fluorescent sodalite and other fluorescent minerals. <https://www.facebook.com/groups/2353537071585017> Administered by John Dean.

John also administrates the group "FS Hunter Buy, sale, trade" which keeps commercial activity off of the discussion group. <https://www.facebook.com/groups/5136966402981581>

Fluorescent Minerals - <https://www.facebook.com/groups/fluorescentminerals>

UV Lights for Fluorescent Minerals - <https://www.facebook.com/groups/1318597922334873>

Fluorescent Minerals - <https://www.facebook.com/groups/fluorescentminerals>

For a deeper dive into fluorescent minerals and some fabulous pictures, check out the website of the Fluorescent Minerals Society at <https://uvminerals.org/>

I hope that you've found the information in this Article of interest, and that you might find the concept

of opening up the world of fluorescence to be of interest. If you have any specific questions please reach out.

**Parting notes and comments:** You may want to build a “kit” to contain and protect your equipment. John Dean referred me to Harbor Freight as a source for cases. They have a number of sizes and colors but here’s the one I bought. They go on sale periodically.

<https://www.harborfreight.com/3800-weatherproof-protective-case-large-orange-56766.html>



*My kit - top and bottom shelf*

## Upcoming Area Shows

This information can be found at the [www.rockandmineralshows.com](http://www.rockandmineralshows.com). Please check the website current shows across the country and in Canada.

### Apache Junction Rock and Gem Club Winter Show - 12/05/2025

Dates: 12/05-07/2025

Venue: Mesa Marketplace

Address: 10550 Baseline Road

Mesa Marketplace

Mesa, AZ 85209

Website: <https://ajrockclub.com/>

### Rocks & Rails Mineral, Gem, & Model Train Show/Expo - 12/12/2025

Dates: 12/12-14/2025

Venue: Boulder County Fairgrounds

Address: 9595 Nelson Rd

Boulder County Fairgrounds

Longmont, CO 80501

Website: <https://flatironsmineralclub.org/>