

Happy July 4th!



Fireworks in Tulsa, Oklahoma. Photo by Richard Jaeger.



July 2026

The Rocky Mountain Federation News



The official publication of the Rocky Mountain Federation of Mineralogical Societies, Inc. The RMFMS is a regional member of the American Federation of Mineralogical Societies, Inc. Email receipt of the *RMF News* is a privilege of membership in the RMFMS, and it cannot be exchanged by the editor for individual club newsletters from other regional federations. Accessible to the public on www.rmfmts.org.

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Information for the **August** issue is due to
LJGRALG@aol.com by **July 15**.

President's Message*Jim Gray, RMFMS President*

Well, here we are, already July, year half over and I'm just getting started. Had a wonderful trip to St. Charles, Illinois. for the AFMS convention. It's always great to see old friends and meet new people. We filled up with gas at home at \$3.69 a gallon and filled up in St. Charles at \$5.00. Seemed the further east I drove, the more gas went up. Coffee — \$5.00 a cup at a cafe in St. Charles! We drank water with that breakfast.



Looking forward to the Tulsa, OK. convention where we will be electing new officers, etc. Remember — if you can't make it to the convention, get your proxy selected so your club will be able to vote; each club gets 2 votes. The rock show appears to be shaping up nicely. It seems like I can always find a few things I need at the shows, and I keep reminding my wife if I buy too much, we can always rent a U-Haul trailer.

I encourage clubs to get more involved with the RMFMS activities and competitions. If you have any questions about them, please let me know, and I can either answer the question or get you to the right person with the answers.

RMFMS won the most awards at the AFMS convention! It was fun and made me feel proud to hear about the submissions from all of the clubs in each of the competitions.

We have a new Webmaster, and she will be working on getting the RMFMS website up to date. Thank you to our new webmaster, Tessa Miller.

Our local rock club, Sublette County Rockhounds, just had our annual gem and mineral show. It turned out to be great, lots of fun, with several new dealers and demonstrators.

See you in Tulsa, OK. I'm almost sure it's going to be a hot one, one way or the other. ~Jim

**July 2026**

Welcome to the Sheridan County Gem and Mineral Society, our newest member Club to the RMFMS! They are located in Sheridan, Wyoming. Their club has 70 members age 12 or older. ~Gene Maggard, RMFMS Treasurer

Clipart created by Wannapik Studio. 4th of July American Flag & Fireworks, CC BY 3.0

TRMS/RMFMS Show Invitation

Roberta Wagle, TRMS President



Dear Rockhounds,

On behalf of the Tulsa Rock and Mineral Society, I would like to welcome you to our annual show and the Rocky Mountain Federation of Mineralogical Societies 2026 Convention.



Established in 1958, the Tulsa Rock and Mineral Society remains a vibrant community with an active membership and an excellent Pebble Pups program. We are fortunate to maintain close relationships with two local museums that house our club's rock shops:

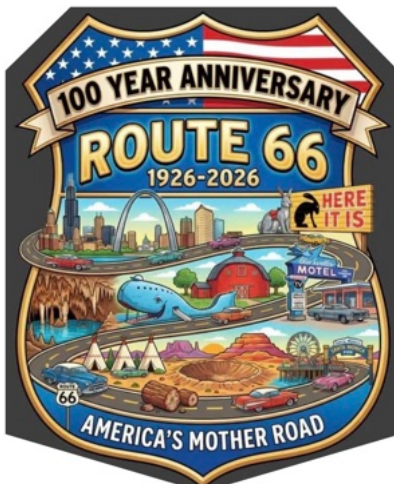
- The Elsing Museum: Located at Oral Roberts University, this free museum features a vast collection of minerals, gems, fossils, and artifacts. Our long-time member and geologist, Claude Bolze, serves as the past curator.
- The DW Correll Museum: Located in Catoosa, this unique institution displays antiques, rocks, minerals, and vintage automobiles. We are pleased to have the museum's curator, Eric Hamshar, as a long-time member and our current show chair.

This is an especially exciting year for Tulsa. In addition to the show and convention, the area is hosting celebrations for the **100th anniversary of Route 66** and the **250th anniversary of the United States**. As the capital of Route 66, Tulsa offers 28 miles of historic road to explore, leading to landmarks such as the iconic Blue Whale in Catoosa.

Thank you for joining us. We hope you enjoy the show and the many activities our city has to offer.

Sincerely,

Roberta Wagle, TRMS President



Did you miss the Convention Packet?

RMFMS Secretary Liz Thomas sent out the Convention Packet in April. Just in case you missed it, some of the forms you might need are included in this newsletter. The complete packet is available on the RMFMS website at:

https://www.rmfmts.org/_files/ugd/1aadcc_bf2e9267596a4363b04659b735ded9cc.pdf

Trying Out Mineral ID Apps

Regina Aumente, Albuquerque Gem & Mineral Club Editor

I recently joined the New Mexico Rockhounds Group on Facebook. Probably a mistake as my feed now features endless photos of hands holding yard rocks asking for identifications. Also resulted in too many ads for crystal and mineral identification apps. So I thought I would try out some of them. I'm not going to name them here because I don't want to end up getting sued for slander.



My first attempt was a **selenite rose**—quite distinctive I thought. The app proudly told me it was feldspar. Tried a sliced septarian nodule, and again the verdict was feldspar.

Next try, should be an easy one, a cluster of **pyrite** cubes. App said it was too blurry, try again. Google search had no problem at all identifying the same picture.



Tried a **garnet** specimen with the same result. Picture was too blurry for the app, but again Google got it right.

The **mesolite** was a tough one. Google got it right, but the app came up with scolecite, a closely-related zeolite. So I guess they sort of work, sometimes.



Tried a third app that looked more "serious." Selenite cluster was identified as "Desert Rose," which describes the cluster but is not a mineral name. Blue barite from Stoneham, CO, was labeled aquamarine, then from a different angle, celestine. Star mica was called desert rose, and amazonite was called aragonite. It did get malachite right.

I'm sure there are many apps out there for rock identification, and some may be quite helpful. And I admit that my hands are not that steady. But based on my informal experiment, I would recommend just sticking with Google.



Where in the RMFMS is Rocky?

- Colorado?
- New Mexico?
- Oklahoma?

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Photo above by Conspiracy of Cartographers, <https://flickr.com/photos/ericswanger/43941225350/in/photolist-29WWgpC>

Answers on page 20.

Hey, Kids – Red, White, & Blue Faves Challenge!

Linda Jaeger, RMFMS Editor



Grab your crayons, colored pencils, or markers to color in the USA Coloring page at left. Then see if you can complete the rest of the challenge questions and activities!

1. What is your favorite **red mineral**? Sketch it and color it in.
2. What is your favorite **white mineral**? Sketch it and color it in.
3. What is your favorite **blue mineral**? Sketch it and color it in.
4. **Create a collage** of your three faves with your sketches and the name of each mineral. You can include your colored version of the USA Coloring Page as part of the collage.
5. **Submit** a copy to your club editor for the newsletter.

Check the USGS mineral coloring sheets at:

<https://www.usgs.gov/programs/mineral-resources-program/activity-and-coloring-sheets>

USA Doodle Coloring Page Free Printable above from:

<https://www.supercoloring.com/media/coloring/530932/usa-doodle>

Smilodon: A Primal Portrait

Steven Wade Veatch, Colorado Springs Mineralogical Society



Smilodon from 1903. By Charles Robert Knight. Public Domain.

Ancient chills cling to the earth as a heavy silence descends
 Beneath gnarled branches, the very air thickens with dread
 Crouched in the shadows, the *Smilodon* prepares its assault
 Draped in pale gold, it haunts the brush with lethal grace
 Eyes, intently focused, fix on an unseen prey
 Fangs, curved like ivory daggers, catch the light
 Grim power vibrates through the coarse grain of its mane
 Hunched shoulders ripple; a tidal wave of force held in check
 Imposing in shadow, it carves a dark shape through the green
 Jaws, built for the kill, remain locked in a terrifying calm
 Killing intent burns deep, the singular spark in its soul
 Low to the earth, it creeps forward—a silent, golden threat
 Muscles coil like wire, every fiber primed for the attack
 Near the tree line it waits, a phantom in its domain
 Outlining the distance, it measures the distance of its prey
 Powerful forelegs, anchored deep, prepare to launch the strike
 Raw sinew stretches as the great cat breaks into a sprint
 Saber-teeth, the namesake of terror, are bared to the sky
 Thick-necked and brutal, it slams into the side of its mark
 Unstoppable momentum carries the hunter through the kill
 Vales and frozen forests echo with the sounds of the struggle
 Warrior of a lost world, a living embodiment of prehistoric power
 Xenacious hunger drives its existence, a constant, primal need
 Yielding its spirit to the cycle of life, the titan stands tall
 Zenith of its era, it vanishes into the mists of time

From CSMS Pick & Pack, June 2026

Field Trip Teasers for the RMFMS/Tulsa Show in July!

Liz Thomas, RMFMS Secretary

Friday, July 10: Blastoids & other Mississippian Marine Fossils**Limit:** 50 people**Meeting place:** Walmart parking lot in Wagoner (35.95789, -95.3975399)**Meeting time:** 9:00am

Description: We meet by the gas station and drive to the site. At the site we will be able to find several types of Mississippian age fossils strewn along the lakeside. The lower the lake level, the more we will be able to find. Once you are done here, you are free to run over to the nearby Sequoyah State Park to visit the nature center or to view the fossil plant material visible at the south end of the park (*collecting is NOT permitted in the park*).

What to bring: shoes for walking in water or those that can get wet, a bag for collecting, sunscreen, water, and lunch.

If you would like to attend one of these field trips, please contact **Peter Grice** at:

petergricetrms@gmail.com

Saturday, July 11: Pennsylvanian Fern Fossils**Limit:** 20 people, possibly a second group in the afternoon depending on interest**Meeting Place:** West Highlands Park on 61st St S (36.07505, -96.02211)**Meeting time:** 9:00am

Description: After gathering we will take a short drive to the site. We have been given permission to access private property nearby, so we will need to be well-behaved and mind the grounds. We will be hiking back into the woods on the property. Hopefully, we will have been able to make sure the trails are cleared out, but if not, we will likely be walking up the creek. There we will be able to pop up slabs of the shale outcrop, likely part of the Coffeyville Formation, to find various fern fossils.

What to bring: shoes for walking in water or waders, sunscreen, bug spray, hammer, chisel, a flat box for carrying your finds (eg: a box lid, something to treat the ferns after they dry out a bit – such as a clear spray-on sealer or watered down Elmer's glue).

Sunday, July 12: Boley Agate**No limit on people attending.****Meeting Place:** Rivermist Casino, north of Ada at the intersection of Highway 377 and 56 (34.9396, -96.6834)**Meeting time:** 10:00am

Description: After meeting, we will drive a few miles down the road and walk along the roadsides for Boley agate, a type of brecciated jasper.

What to bring: comfortable shoes, a bag for collecting, hammer/prybar, sunscreen, bug spray, water, and lunch.



"Going Up Country": Collecting Coquimbite: San Rafael Swell, Utah

Mike Nelson, csrockguy@yahoo.com, Colorado Springs Mineralogical Society



Now a journey to the mountains was "for real," and I (along with a new youthful bride) was off to follow the mountain men explorers, although as a geologist rather than a beaver trapper. There were so many new places with rocks and fossils and peaks and deserts that were absent in the Plains. What a fantastic time to be a geologist but also realizing that there was so much to learn. Those feelings are still with me today!



Early on in my University of Utah days one of my fellow grad students suggested a long Saturday field trip to the San Rafael Swell near Price, Utah. So off we go with rock hammers, lunch, cameras, and for me—a great deal of excitement. At that point in my life, I didn't have the slightest idea of what the Swell was, nor what we would see on a field trip. All was new; most rockhounds can attest to this thrill building up as the week winds down for a Saturday field trip!

I have noted in other articles about my academic move from Vermillion, SD, to Salt Lake City, UT. It was the case of a small-town Kansas kid moving west to the mountains of his youthful dreams. How many times had he ogled the advertisements in the back pages of "outdoor" magazines promising a job as a "forest ranger" or maybe even a "government trapper?" How many times during his high school and undergrad days had he applied for a summer position in one of the national forests — any job would do? But, as usual, he spent his hot Kansas summers working at his father's gasoline station and/or driving a tractor for his uncle. But hey, it was money in the bank.



Cliffs of Cretaceous rocks forming a western boundary to the Swell.

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San Rafael Swell, Utah — continued from page 8

After a main highway sojourn, we finally turned onto a gravel/dirt road, and I became absolutely amazed at the sights. To the west were the towering blue to blue-gray cliffs of the Cretaceous Mancos Shale. These marine rocks were part of the Western Interior Seaway that once extended from the Arctic Ocean south to the Gulf of Mexico and from Utah through Kansas (in today's geographic terminology). As we traversed down section into the Swell, I could recognize the older Cretaceous Cedar Mountain and Dakota/Naturita Formations, the Jurassic dinosaur-bearing Morrison Formation and then into the majestic red rocks of Jurassic, Triassic, and Permian age complete with deep canyons, high cliffs, and lookouts where you could gaze for tens of miles without seeing human habitation. While eating lunch on a large boulder in the lazy warm sun I think my spouse had an epiphany on why I wanted to become a professional geologist and work "in the West." And so, she accompanied me almost every summer for 20 years as I hauled my undergrad students around the "West" to help me with research projects, or to direct grad students on their own projects. Just as I fell in love with the Black Hills during my South Dakota days, I fell head over heels for the Colorado Plateau and especially the San Rafael Swell.

Geologically, the southwest quadrant of Utah, part of the Colorado Plateau Physiographic Province, is dominated by several small anticlinal uplifts and larger laccolitic peaks. By small, I mean the anticlines do not approach the size of time-related (Laramide Orogeny) mountain ranges such as the Uinta Range, but still extend tens of miles in length. The "big" anticlinal mountains expose Precambrian rocks in the center that usually form the high peaks. The "smaller" upwarps usually have rocks no older than Pennsylvanian in the center. However, there are some spectacular folds and "bent" rocks within these upwarps. The best-



Rocks to impress a flatlander and love forever.

known upwarp features in Utah are the Monument Upwarp, the San Rafael Swell (a large anticlinal uplift with a steeply dipping and folded eastern margin termed the San Rafael Reef) and the Circle

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San Rafael Swell, Utah — continued from page 9

Cliffs Uplift (a north-south doubly-plunging anticline with a steeply dipping (almost vertical) eastern margin, the Waterpocket Fold). These large upwarps “were formed by tangential compressional forces that were episodically repeated throughout the Phanerozoic [post Precambrian] and most magnificently accentuated by Laramide and younger tectonism” (Stevenson, 2000).



Laramide anticlinal uplifts centered around Four Corners Region (X).
Original source unknown but commonly attributed to Don Barrs.



Google Earth© image of “bean-shaped” San Rafael Swell in Emery County, Utah. The San Rafael Reef (steeply dipping beds) is the “toothed” area in the southeast.

To a small-town flatlander like me, the scenery I saw that 1967 day in the Swell was almost overwhelming. I was swimming in sensory overload and could not quite contemplate *what was going on*. As a want-ta-be geologist I had a thousand questions and was thinking about a future dissertation project—and about blew my mind.



The small knob was the site of the Rough Road Quarry in the Cedar Mountain Formation. See Eaton and Nelson in References Cited.

Well, I never settled on a dissertation project in the Swell but later spent the better part of three years hunting for Cretaceous mammals in the Cedar Mountain Formation and supervising four MS students working on theses. My project turned out reasonably well as the Rough Road Quarry produced numerous small mammal, reptile, and “fish” specimens. This work was started when mammals were almost unknown in the Early Cretaceous rocks of the U.S. and before the famous *Utahraptor* discovery in the Cedar Mountain near Moab set off a massive paleontological hunt in the unit. About the same time as my work in the late 1980s-early 1990s paleontologists from Weber State University and the University of Oklahoma hit the jackpot with

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San Rafael Swell, Utah— continued from page 10

several new quarries, and major finds of mammals, in the unit. As for me, I ventured over to the world of university administration.

During those early years of my stay at the University of Utah all roads into the Swell were essentially graded native rock, sediment and “dirt.” I was stranded and “stuck” more than once when the bentonitic sediment became wet. Visitors were few and the camping and exploring were great, and so for the following 20 years the Swell was our “go to” place to escape. I was especially drawn to the Cleveland-Lloyd Dinosaur Quarry where Jim Madsen, my good friend and research companion, spent most of his summer months.

The University of Utah scientists began studies on San Rafael Swell dinosaurs in the 1920s followed by paleontologists from Princeton University. In 1960 the University of Utah commenced a 5-year project with several cooperating schools under the administrative leadership of Dr. William Lee Stokes and field leadership of Madsen. In those days the quarry was protected from the elements by a corrugated roof structure with few other

accommodations. Today the Quarry and a few surrounding acres have been designated as Jurassic National Monument and a new museum-like building has been constructed. Over the years, bones have been taken from the quarry representing at least 70 different animals and 11 species. Cast and original skeletons assembled from these bones are on display in over 60 museums worldwide.



Cleveland-Lloyd Dinosaur Quarry in Jurassic National Monument. Public Domain photo by Richard M. Warnick.

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Where in the RMFMS is Rocky?

- Colorado?
- New Mexico?
- Oklahoma?

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Photo at left from *Obsidian Observer*, May 2026.

Answers on page 20.



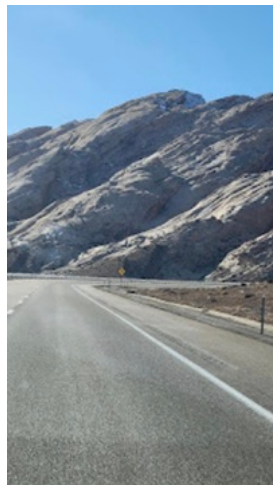
San Rafael Swell, Utah — continued from page 11

The Swell opened for travelers to catch sight of the fantastic scenery when I-70 in Utah was partially completed and opened as two lanes in late 1970. However, total construction and dedication was not completed until 1990. The Swell is still a rather uncrowded hunk of land perhaps best known by road warriors as the longest stretch of Interstate highway, 110 miles between Salina and Green River, without any urban development or services for visitors—fill up the gasoline tank before travel.

I suppose most people traversing through the Swell, especially those in a hurry and those without an appreciation for desert scenery, might remember the gate to the eastern section. Here, I-70 cuts through the upturned rock known as the San Rafael Reef. It is an amazing bit of travel through Jurassic and Triassic rocks.



Driving I-70 through the upturned rocks of the San Rafael Reef approaching from the east (lower two photos at right), and approaching from the west (upper Public Domain photo courtesy of Dennis Adams).



Rockhounding in the Swell is sort of a mixed bag. MinDat lists a total of 83 valid minerals (Type Localities for three uranium minerals) found in the San Rafael Swell Mining District, a fishhook shaped area covering the eastern and southern exposures. Research by *thediggings dot com* noted mines and prospects in the District: *includes 5493 nearby claims—39 active and 5454 closed—and 183 nearby mines—49 occurrences, 28 prospects, and 106 producers.* Virtually all mines and prospects were after uranium and/or vanadium from the Chinle Formation with perhaps a little copper thrown in, maybe a tad of zinc and lead. After World War II the need for uranium to fund the Atomic Energy Commission (AEC) projects created a large boom in the late 1940s and 1950s and brought thousands of prospectors, miners and merchants to Utah, including a ‘rags-to-riches’ Texan by the name of Charlie Steen. His discovery, in 1952, of the Mi Vida (My Life) mine near Moab triggered a “uranium rush” to the Colorado Plateau that rivaled the fabled gold rushes of the 1800s. School teachers, insurance brokers, used car salesmen, and shoe clerks around the nation converged on the Colorado Plateau to seek their fortune. Even a group of high school students staked forty claims and later sold them for \$15,000. By the mid-1950s, almost six hundred producers on the Colorado Plateau were shipping uranium ore. Employment in the industry topped 8,000 workers in the mines and mills. Another bonanza in penny uranium stock established Salt Lake City as The Wall Street of Uranium. The AEC had turned the tap and caused a flood. By 1960 Utah was producing in excess of 6.5 million pounds of uranium; however, in 1964 the AEC decided to stop purchasing uranium and the bust cycle was

continued on next page

San Rafael Swell, Utah— continued from page 12

on (Ringholz, 2009), although there have been a few minor boom cycles in the last 50 years.

I sort of refuse to touch most radioactive minerals and have never really been interested in collecting such, especially specimens containing any sort of uranium. In fact, my collecting habits in the Swell have been tied to fossils and various types of micro crystalline quartz with a few pieces of “petrified” wood thrown in. However, I have enjoyed taking a look at several of the abandoned uranium/vanadium mines but have never ventured near the mine entrances. I am quite claustrophobic and don’t want to take any chance of a poisonous gas leaking out. In other words, I could/would not work in the mining industry where underground journeys were required. I am certain this habit kept me from finding a plethora of nifty mineral specimens!



The “old” bridge crossing the San Rafael River in the middle of the Swell. It was infamous for moaning and groaning and sagging whenever a car slowly crept from one bank to the other. A new ugly, concrete bridge, seen to the left, was offered as a replacement.

Calf Mesa is a well know area in the northern part of the large San Rafael Mining District, not far from the “old bridge.” The Rim of the Mesa is mostly composed of the Entrada Formation although small “slivers” of the overlying Curtis Formation may be present. Underlying the Entrada is the Chinle

Formation that contains a sandstone/conglomeratic, channel-fill, unit variously referred to as the Shinarump Member or the Moss Back Member that are/were the major producers of uranium and vanadium in the San Rafael Swell. A cluster of mines along the side of the Mesa has produced 28 valid minerals according to MinDat. The best known of the Calf Mesa Mines is the Dexter #7. According to MinDat, the Mine — from 1950 through 1957 — produced more than 500 tons of ore which averaged about 0.27 percent Uranium 308 and 0.05 percent Vanadium 205. Today the Mine is long abandoned; however, the large scattering of mine equipment, the ease of locating and accessing the mine (if you like to walk), and the chance of collecting rare to uncommon iron sulfate minerals such as butlerite, copiapite, coquimbite, krausite, melanterite, romerite, voltaite, and goldichite (the Type Locality) attracts a variety of specimen collectors. However, it now appears that rockhounds have company at Calf Mesa as “Anfield Energy Inc.,” a uranium and vanadium mining company based in Vancouver, British Columbia, Canada, [Anfield purchased in late 2024 by Isoenergy Ltd.] has purchased a 100 percent interest in 26 unpatented mining claims of the Calf Mesa uranium project, located in Emery County” (Salt Lake Business Journal, 14 January 2023).



The rim of Calf Mesa. Photo courtesy of Dennis Udink, Price, UT

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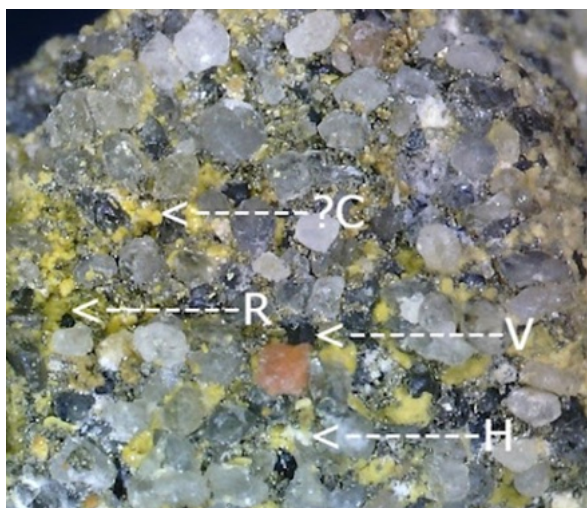
San Rafael Swell, Utah — continued from page 13

Probably the most collectable mineral from the Dexter #7 is the uncommon, hydrated, iron sulfate coquimbite: $\text{AlFe}_3(\text{SO}_4)_6(\text{H}_2\text{O})_{12} \cdot 6\text{H}_2\text{O}$. Crystals are colorless to lavender to purple to pink to greenish to yellowish---often in the same specimen. They usually are short prismatic with small unequal pyramidal faces. Crystals are transparent, sub-vitreous to resinous and quite soft at 2.0-2.5 (Mohs), brittle with a sub-conchoidal fracture and a white streak. They would, at first, be tough to identify (for an old plugger like me) unless one knew the collecting locality---arid region as a secondary mineral in oxidized sulfide deposits. It also may form in volcanic fumaroles and/or in underground mine fires. Whatever the case, once one sees the crystals the identity seems to stick in your mind.



Above: Searching for fossils in the mudstone outcrops of the Cedar Mountain Formation. Take your canteen and a snack and a Brunton.

continued on next page



Clear to light purple or lavender sub-millimeter crystals of coquimbite (color varies across specimen). Also present are the hydrated iron sulfates halotrichite (H white fibrous encrustations), voltaite (V dark green to mostly "black"), romerite (R brownish orange), and a yellow unknown mineral, probably copiapite (?C) but possibly some goldichite? These latter minerals are even smaller than the coquimbite and tough to identify.



San Rafael Swell, Utah — continued from page 13

There is no shortage of water in the desert but exactly the right amount, a perfect ratio of water to rock, water to sand, insuring that wide free open, generous spacing among plants and animals, homes and towns and cities, which makes the arid West so different from any other part of the nation. ~Edward Abbey

References Cited:

Ringholz, R. C., 2009, Utah's Uranium Boom in Beehive 16, Utah History to Go: <http://historytogo.utah.gov/>

**Going up the Country* is the title of a song by Canned Heat:

*I'm going up the country
Baby, don't you wanna go?
We gonna go somewhere
Where I've never been before*

Of Interest:

Pomes, Michael L., "Stratigraphy, Paleontology and Paleobiogeography of Lower Vertebrates from the Cedar Mountain Formation (Lower Cretaceous), Emery County, Utah" (1988). *Master's Thesis*.

Conley, Steven J., "Stratigraphy and Depositional Environment of the Buckhorn Conglomerate Member of the Cedar Mountain Formation (Lower Cretaceous), Central Utah" (1986). *Master's Thesis*.

Crooks, Deborah M., "Petrology and Stratigraphy of the Morrison (Upper Jurassic) and Cedar Mountain (Lower Cretaceous) Formations, Emery County, Utah" (1986). *Master's Thesis*.

Hunter, David A., "Stratigraphy, Sedimentation, and Paleoenvironment of the Cedar Mountain Formation and the Dakota Sandstone (Cretaceous) in West-Central Emery County, Utah" (1990). *Master's Thesis*.

Nelson, M. E., and Crooks, D. M., 1987, Stratigraphy and paleontology of the Cedar Mountain Formation (Lower Cretaceous), eastern Emery County, Utah, in Averett, W. R., editor, Paleontology of the Dinosaur Triangle--guidebook for 1987 field trip: Grand Junction, Colorado, Museum of Western Colorado, p. 55-63.

Eaton, J.G. & Nelson, M.E. 1991. Multituberculate mammals from the lower Cretaceous Cedar Mountain Formation, San Rafael Swell, Utah. *Contributions to Geology, University of Wyoming*, 20:1-12



Where in the RMFMS is Rocky?

- Colorado?
- New Mexico?
- Oklahoma?

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Photo left, Anthony J. Bentley, Public Domain

Answers on page 20.



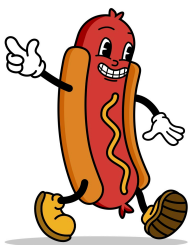
Quick Note — 2026 AFMS Bulletin Editor Awards for RMFMS

Congratulations to our RMFMS Editors, authors, and artists! We sent 28 entries to the AFMS Bulletin Editors Contest, and 27 of these were in the top 10 in their respective categories. Out of the 15 categories in which we had entries, RMFMS received 11 first place awards! AFMS awards are listed in the June AFMS Newsletter. RMFMS and AFMS awards will be presented in Tulsa at the Editors/Webmasters Breakfast, July 12. Complete results will be printed in the August RMF Newsletter.



Trophy With Red Ribbon.ai

Image by Vectorportal.com, CC BY



Hot Links – Editor's Picks

Linda Jaeger, Editor

Below are some hot links you might find interesting. Just click on the link — it will open the web page in your browser.

- **Active Volcanoes of Our Solar System**

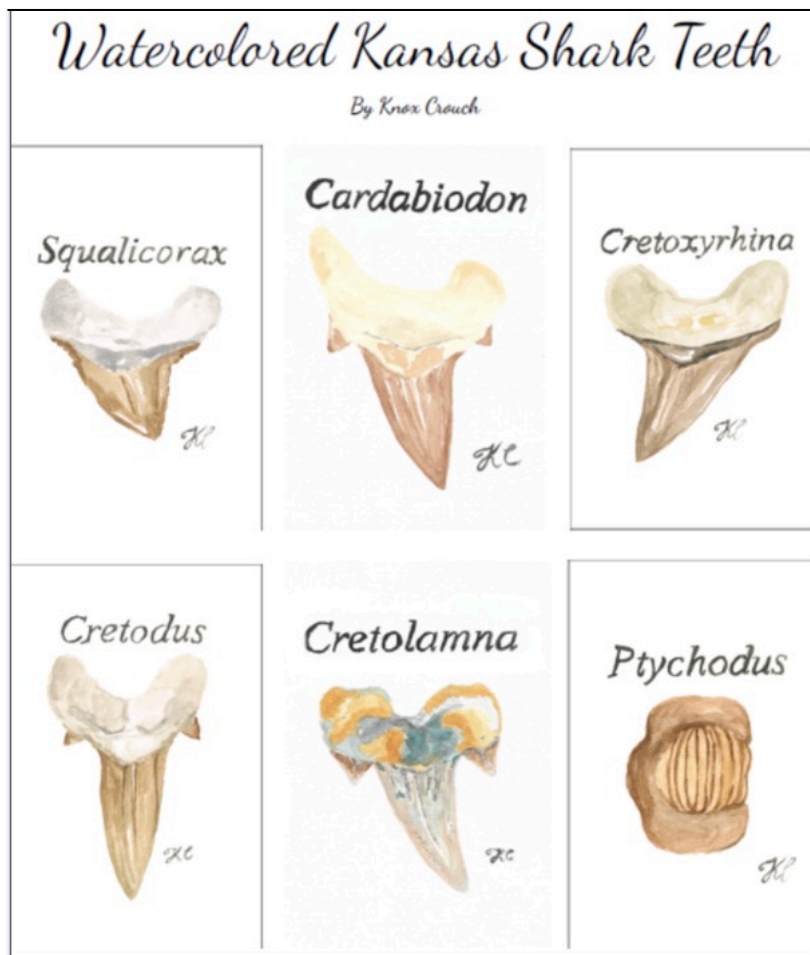
<https://geology.com/articles/active-volcanoes-solar-system.shtml>

- **The Sliding Rocks of Racetrack Playa**

<https://geology.com/articles/racetrack-playa-sliding-rocks.shtml>

- **World's Tallest Tsunami**

<https://geology.com/records/biggest-tsunami.shtml>



From the Art Gallery pages of the latest issue of Crack the News, May 2026.

This water color collection is of several Kansas shark teeth that I found while fossil hunting. The teeth all come from various Cretaceous-age rock formations in Kansas. The different colors represented in the teeth are due to the formation they were found in. In particular, the *Cretolamna*, was found in the Codell Sandstone, which produces unique mineralization in fossil teeth.

Knox Crouch, age 17, McPherson Gem & Mineral Club, Kansas

2026 RMFMS Convention —

MEALS for AWARDS BANQUET & EDITOR/WEBMASTER BREAKFAST

Awards Banquet, Saturday July 11, 2026

- Location: Hilton Garden Inn (4518 E Skelly Drive)
- 6 PM Happy Hour. Location: Hilton Garden Inn, this is a cash bar, and you can take your drinks into the Banquet room.
- 7 PM Dinner in the Regal Ballroom.

Menu is Chicken or Beef Kabobs, Chicken Wild Rice Soup, Toss Salad, Honey Glazed Carrots, Twice Baked Potatoes, Hot Rolls, Tea, Coffee, and dessert is Chef's Choice.

Breakfast for Editors and Webmasters, Sunday, July 12, 2026

- Location: Hilton Garden Inn (4518 E Skelly Drive)
- 8 AM Breakfast in the Ruby Room

Menu is Fresh Scrambled Eggs, Sausage Links, Hash Brown Potatoes, Assorted Breakfast Breads with Butter and Jams, Coffee, Tea, Orange Juice, and Fresh Fruit.

2026 RMFMS Convention Registration Form

The Tulsa Rock and Mineral Club (TRMS) welcome the Rocky Mountain Federation of Mineralogical Societies (RMFMS) July 10 – 12 2026

Return Form and Check to:

TRMS

Box 2292

Tulsa, OK 74101

Name(s): _____

Phone: _____

Mailing Address: _____

Email Address: _____

Name of Club/Society: _____

Check all that apply: Federation: AFMS___ RMFMS___ SCFMS___ CFMS___ MWF___
EFMLS___ NFMS___ SFMS___ Office: Officer___ Chairman___ Delegate___ Alternate___
Editor___ Judge___ Clerk___ Other___ Exhibitor: _____

(Exhibitors must complete this form and the EXHIBITOR FORM)

Awards Banquet \$40.00 each (tax and tip included) x Number _____ Total\$ _____

Chicken Kabob

Awards Banquet \$40.00 each (tax and tip included)x Number _____ Total\$ _____

Beef Kabob

Editors Breakfast \$22.00 each (tax and tip included) x Number _____ Total\$ _____

= GRAND TOTAL \$ _____

Admission to the Show is \$7.00 at the gate. Kids 12 and under are free. Scouts in Uniform get in free. Military and First Responders with ID get in free. All Show passes are \$12.00.

Deadline for Registration is Saturday, June 20, 2026. Payments are non-refundable after July 1, 2026.

Going on Field Trip: Friday _____ Saturday _____ Sunday _____

Or contact Peter Grice at petergricetrms@gmail.com.

Convention Schedule: July 9-12, 2026

2026 RMFMS Convention

Date	Time	Activity	Location
Thursday, July 9	8 AM – 11 AM	Exhibit Cases Setup	Exchange Center, 4145 East 21st Street, Tulsa
	Around noon	Vendor Setup	Exchange Center, 4145 East 21st Street, Tulsa
	11:00 AM	Judge's Meeting	Exchange Center, 4145 East 21st Street, Tulsa
Friday, July 10		Field Trip	Ft. Gibson Lake
	9 AM – 6 PM	TRMS Show	Exchange Center, 4145 East 21st Street, Tulsa
	9:00 AM	Judging of competitive cases	Exchange Center, 4145 East 21st Street, Tulsa
	11 AM – 12:45 PM	RMFMS Delegate Registration	Hilton Garden Inn 4518 E Skelly Drive Regal Ballroom
	1:00 PM	RMFMS Board Meeting	Hilton Garden Inn 4518 E Skelly Drive Regal Ballroom
Saturday, July 11		Field Trip	West Highlands Park
	9 AM – 6 PM	TRMS Show	Exchange Center, 4145 East 21st Street, Tulsa
	11 AM – 12:45 PM	RMFMS Delegate Registration	Hilton Garden Inn 4518 E Skelly Drive Regal Ballroom
	1:00 PM	RMFMS Delegate Meeting	Hilton Garden Inn 4518 E Skelly Drive Regal Ballroom
	6:00 PM	Happy Hour	Hilton Garden Inn Lobby Area
	7:00 PM	Awards Banquet	Hilton Garden Inn 4518 E Skelly Drive Regal Ballroom
Sunday, July 12		Field Trip	Rivermist Casino, North of Ada
	8:00 AM	Editors Breakfast	Hilton Garden Inn 4518 E Skelly Drive Ruby Room
	10 AM – 5 PM	TRMS Show	Exchange Center, 4145 East 21st Street, Tulsa

Upcoming Shows and Events in the RMFMS

If your club has show information that you would like to have listed in the *Rocky Mountain Federation News*, please email the information to the editor (including show flyers) — <LJGRALG@aol.com>. As with many of the other email addresses in the newsletter, you will need to remove the chevrons, < >, and replace the spaces and the "at" with the correct symbol, @ .

7/3-5/2026	LGGMCM Gem & Mineral Show @ Cripple Creek	Hwy 67 from Divide OR Teller County Rd 1 from Florissant to Cripple Creek, Parking lot NW of Cripple Creek District Museum, 5th & Bennett Ave (east of Hwy 67)	
7/10-12/2026	RMFMS/Tulsa Rock & Gem Show	Exchange Center at Expo Square, 4145 E 21st St, Tulsa, OK 74114	trmsok.org
7/10-12/2026	White Mountain Gem & Mineral Club	Show Low Elks Lodge, 805 E Whipple Street, Show Low, AZ	www.whitemountain-azrockclub.org
7/25-26/2026	Western Dakota Gem & Mineral Society	Nerdy Nuts Expo Hall/Gen Pro Building, Central States Fairgrounds, Rapid City, South Dakota	westdakota.rocks@gmail.com
9/4-6/2026	Grant County Rolling Stones Gem & Mineral Society	Grant County Veterans Memorial Business & Conference Center, 3031 Hwy 180E, Silver City, NM	Jeannine Weiner, 575.654.4424, email: rockshow@grantcountyrocksounds.org
9/4-7/2026	Northwest Nebraska Rock Club	Crawford City Park, Crawford, NE	Valerie, 308.430.4404 or Wade, 308.430.1399, wadebeins87@gmail.com
10/10-11/2026	Topeka Gem & Mineral Society 69th Annual Show	The Woodshed Event Center, 1901 N Kansas Ave, Topeka, KS	rock2plate@aol.com; Topeka GMS.org, 785-267-2849
10/30-11/1, 2026	Oklahoma Mineral & Gem Society Show	Modern Living Bldg, OKC State Fair Park, 608 Kiamichi Place, OKC, OK 73107	omgs-minerals.org
12/4-6/2026	El Paso Mineral & Gem Society	El Maida Shine Temple, 6331 Alabama Ave, El Paso, TX 79904	www.epmgsTX.org

Below are upcoming regional federation shows:

	California Federation	Eastern Federation	Midwest Federation	Northwest Federation	Rocky Mountain Federation	South Central Federation	Southeast Federation
2026	Reno, NV September 18-20	Charleston, WV October 16-18	AFMS/MWF St. Charles, IL May 22-24	Missoula, MT March 20-22	Tulsa, OK July 9-12	Houston, TX November 13-15	
2027			West Bend, WI March 5-7		Logan, UT		AFMS/SFMS Huntsville, AL October (TBD)
2028					AFMS/RMFMS Scottsdale, AZ		



RTM TULSA ROCK & GEM SHOW

Exchange Center at Expo Square
4145 E 21st St
Tulsa, OK 74114

Also hosting
Rocky Mountain
Federation Convention

- Rocks
- Gems
- Minerals
- Fossils
- Jewelry
- Free Kid Zone
- Demonstrations
- Fluorescent Display
- Collection Displays
- Silent Auction

July 10-12, 2026

\$7 Adults
\$12 All Show Pass

Kids 12 and under free
with adult admission

Military and First
Responders free with ID
Scouts free in uniform

9-6 Fri & Sat
10-5 Sun

trmsok.org

Mark Your Calendars & Make Your Plans!

The **RMFMS Convention** is being hosted by the Tulsa Rock & Mineral Society this year, July 10-12. Packets were mailed in late April. Some forms are in this newsletter.

There will be field trips every day of the show. Did you see the show "teasers" in this issue?



Where in the RMFMS is Rocky? — Answers

We have clubs from 13 states in the RMFMS. Have you been there? Do you recognize the photos from the areas shown this month? **I would love for you to send an awesome photo from your state with a caption and location to print!** RMFMS has amazing country and activities!

Linda Jaeger, Editor

Here are the answers for the photos on pages 4, 11, and 15:

-page 4: Picture Canyon in **Colorado**, 1 mile north of Oklahoma border

-page 11: "King of Wings" in **New Mexico**

-page 16: Preston Monument, Tri-State corner, **Oklahoma/New Mexico/Colorado**

Check out this video panoramic of the OK/NM/CO Tri-State area:

<https://www.youtube.com/shorts/oZjKzJ-GCRA>



Look for more beautiful locations next month from our member states: Arizona, Arkansas, Colorado, Kansas, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming.

26th Annual LGGMC GEM & MINERAL Show
@
CRIPPLE CREEK
July 3rd - 5th, 2026



Dave Bruess
LGGMC Patience Claim
Jefferson County CO

**THE WHITE MOUNTAIN
GEM AND MINERAL
CLUB PRESENTS OUR**
27TH ROCK, GEM, MINERAL
AND FOSSIL SHOW
JULY 10-12, 2026
FRIDAY 9 AM -- 5 PM
SATURDAY 9 AM -- 5 PM
SUNDAY 10 AM -- 4 PM



WHITE MOUNTAIN GEM AND MINERAL CLUB
SHOW LOW, ARIZONA



Admission
Adults \$5, Kids Free With Adult
Location: Show Low Elks Lodge
805 E Whipple Street
Show Low, Arizona

MEMBERSHIP
We welcome new members! Please visit
our website below for meeting times and
location.

◆ **Jewelry** ◆ **Fluorescents** ◆ **Gold**
◆ **Displays** ◆ **Demonstrations** ◆ **Fossils** ◆ **Kid's Corner**
◆ **Door Prizes** ◆ **Vendors** ◆ **Food Service Daily**

Contact us at www.whitemountain-azrockclub.org

Western Dakota Gem and Mineral Society

Gem and Mineral Show

July 25-26, 2026
Saturday 9 am - 5 pm
Sunday 9 am - 3 pm

Nerdy Nuts Expo Hall/GenPro Building
Central States Fairgrounds
Rapid City, South Dakota

- Vendors
- Displays
- Fluorescent Room
- Geode Cracker
- Silent Auction
- Gold Panning



Kids Activities

- Sand Search
- Coloring Contest
- Scavenger Hunt
- Hands on Learning
- Grab Bags



Adults \$5 Kids under 12 Free

43rd Annual Show

wdgms.org westdakota.rocks@gmail.com

Reminder:

Advertise your Show in as many Free locations as possible!

- Local newspapers
- Current events sections
- Local TV stations
- Community Calendars
- Other local shows

Advertise in the *Rock & Gem Magazine*!

Send the information in early so it's published in the magazine as well as online:

www.rockandgem.com/show-date-submissions/

Info from CFMS Newsletter, April 2024



The Grant County Rocking Stones Gem & Mineral Society Presents

GEM AND MINERAL SHOW

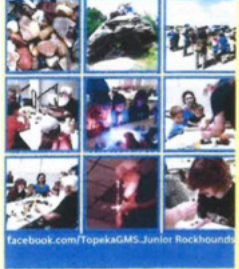
in
Silver City
NEW MEXICO



Friday, September 4 – Sunday, September 6, 2026

The Topeka Gem & Mineral Society Annual Show Oct. 10th & 11th 2026 at the Woodshed

The Topeka Gem & Mineral Society
Junior Rockhounds



Facebook.com/TopekaGMS-Junior-Rockhounds

Lapidary:
Cut & Polish Stones



Learn Silver
Smithing,
Wax Casting
& more



Learn Wire
Wrapping &
other
Lapidary
Arts

Topeka GMS.org; Call (785) 267-2849

2026 Annual Mineral and Gem Show

Modern Living Building
OKC State Fair Park
608 Kiamichi Place,
OKC, OK 73107

Oct. 30th, 9-6
Oct. 31st, 9-6
Nov. 1st, 10-5

Daily Admission \$8

Kids Under 12 Free

Exhibits, Gemstones, Fossils, Earth Science Education, Tools, Rough Rocks,
Crystals, Florescent Room, Artisan Jewelry and Children's Activities



Hosted By Oklahoma Mineral and Gem Society

omgs-minerals.org

Dec. 4th-5th-6th

Friday & Saturday 10:AM - 6:PM

Sunday 10:AM - 5:PM

El Maida Shine Temple

6331 Alabama Ave.

El Paso, Texas 79904



www.epmgsTX.org

Vendor Contact Liz K. 915-328-5488
ekosturakis@gmail.com

El Paso
**MINERAL & GEM
SOCIETY**



Free Parking
Door Prizes

Free Admission
Kids Activities

Family Friendly

Rock & Mineral Vendors • Geode Cracking

Rough & Finished Rock

Slabs • Cabs • Jewelry • Beads • Fossils

Demos & Presentations • Gold Prospectors

Signup for Lapidary & Silver Smithing Classes

2025-2026 Executive Committee – *composed of the Officers & the State Directors*

Officers:

President	Jim Gray	<jimgray at wyoming.com>
Vice President	Steve Kaminski	<scsckamin at gmail.com>
Secretary	Liz Thomas	<mygemsrock at gmail.com>
Treasurer	Gene Maggard	<gandpmaggard at gmail.com>
Historian	Cinda Kunkler	<cccrocks25 at gmail.com>
Past President	Bob Regner	<Rnregner at aol.com>
Past President	Richard Jaeger	<RjgrSci at aol.com>

State Directors:

AZ/NV	Jodi Brewster	<jodibrewster66 at gmail.com>
CO	Steve Bohannon, MD	<bohannon_steve at yahoo.com>
KS	Larry Beck	<Lkbeckfam at gmail.com>
ND/SD/NE	Lori Loomis	<sdnestatedirector at gmail.com>
NM/TX	Donna Regner	<Dwanna7 at aol.com>
OK/AR	Roberta Wagle	<waglemom at gmail.com>
UT	Daniel Ahlemann	<ahlemann.rockandgemclub at gmail.com>
WY	Leane Gray	<lgray at wyoming.com>

Please note: All email addresses are enclosed in chevrons, < >, and the @ symbol has been replaced by the word "at" with a space before and after the word. This is to prevent bots from picking up our email addresses. You will need to remove the chevrons and replace the word "at" and the two spaces with the @ symbol to have the correct email.

2025-2026 Committee Chairs

ACROY (AFMS Club Rockhound of the Year)	Chris Whitney-Smith	<ask.chrisws at yahoo.com>
All American Club	Roberta Wagle	<waglemom at gmail.com>
BEAC (Bulletin Editors Advisory Committee) & Bulletin Editors Contest	Linda Jaeger	<LJGRALG at aol.com>
Boundaries	DeLane Cox	<delanec3 at earthlink.net>
Convention Advisor	Liz Thomas	<mygemsrock at gmail.com>
Credentials	Roberta Wagle	<waglemom at yahoo.com>
Directory	Lori Loomis	<riggsoldchap at yahoo.com>
Editor of Newsletter	Linda Jaeger	<LJGRALG at aol.com>
Finance	Wayne Cox	<WayneC3 at earthlink.net>
Fluorescent Tech	Brian Walko	<bwalko at earthextractions.com>
Fossils Tech	Mike Nelson	<csrockguy at yahoo.com>
Gold Pan Award	Richard Jaeger	<RjgrSci at aol.com>
Insurance	Gene Maggard	<gandpmaggard at gmail.com>
International Relations	Mike Nelson	<csrockguy at yahoo.com>
Juniors Program	Michelle Cauley	<michelle.cauley at dakotacollege.edu>
Lapidary Tech		
Long Range Planning	Liz Thomas	<mygemsrock at gmail.com>
Long Range Planning	Richard Jaeger	<RjgrSci at aol.com>
Long Range Planning	Judy Beck, chair	<Lkbeckfam at gmail.com>
Mineralogical Tech	Mike Nelson	<csrockguy at yahoo.com>
Name Badges	Richard Jaeger	<RjgrSci at aol.com>
New Program Contest	Gene Maggard	<gandpmaggard at gmail.com>
Nominating Committee	Bob Regner	<Rnregner at aol.com>
Nominating Committee	Liz Thomas	<mygemsrock at gmail.com>
Nominating Committee	Jim Gray	<jimgray at wyoming.com>

continued on next page

2025-2026 Committee Chairs – *continued*

Parliamentarian	Gene Maggard	<gandpmaggard at gmail.com>
PLAC - AZ	Chuck Greenhawt	<cegag at gmail.com>
PLAC - CO		<>
PLAC - KS	Mike Nelson	<csrockguy at yahoo.com>
PLAC - NM/TX		
PLAC - OK/AR		<>
PLAC - ND/SD/NE	Lori Loomis	<sdnestatedirector at gmail.com>
PLAC - UT/NV		<>
PLAC - WY	Greg Jones	<wyojones at wyjones.com >
President's Hat	all past presidents	
Program Library	Gene & Peggy Maggard	<gandpmaggard at gmail.com>
Public Relations	DeLane Cox	<delanec3 at earthlink.net>
Resolutions		
Ribbons	Jenelle Hopkins	<Jhopk67328 at aol.com>
Safety	Jodi Brewster	<rmfmssafety2024@gmail.com>
Scholarship Committee	Richard Jaeger	<RjgrSci at aol.com>
Stationery/Trophies	Ben Thomas	<myretirementrocks at gmail.com>
Supplies	Lori Loomis	<sdnestatedirector at gmail.com>
Uniform Rules	Lee Whitebay	<lwhiteba at gmail.com>
Uniform Rules	Leon Reeder	<leonreeder47 at yahoo.com>
Uniform Rules	Les Presmyk	<presmyk at cox.net>
Webmaster	Tessa Miller	<tessa.miller10 at gmail.com>
Website Contest	Leane Gray	<Lgray at wyoming.com>

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RMFMS Purpose & Policies –

Excerpts from 2023 Directory (Revised)

- To bring about a closer association of the Earth Science Groups in the Rocky Mountain region.
- To increase and disseminate knowledge about minerals and other geologic materials.
- To encourage mineral study, collecting, and fashioning as a HOBBY.
- To sponsor local organizations interested in similar purposes.
- To encourage all clubs to publish bulletins and newsletters.
- To continue building up and promoting the use of the Federation Library of slide programs, videos, CDs, and DVDs to each member club.
- To distribute information and suggestions on the preparation and arrangement of specimens and materials for exhibit and display.
- To provide information and assistance to clubs holding Gem and Mineral Shows.
- To encourage clubs to support the American Federation of Mineralogical Societies Scholarship Foundation Fund.

AFMS Code of Ethics

- I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.
- I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.
- I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.
- I will use no firearms or blasting material in collecting areas.
- I will cause no willful damage to property of any kind—fences, signs, buildings.
- I will leave all gates as found. I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.
- I will discard no burning material—matches, cigarettes, etc.
- I will fill all excavation holes, which may be dangerous to livestock.
- I will not contaminate wells, creeks or other water supply.
- I will cause no willful damage to collecting material and will take home only what I can reasonably use.

- To promote the concept that all members of all clubs are members of the RMFMS and the AFMS, and to encourage individual members and clubs to take responsibility for asking questions or making known that help is needed. To encourage more contacts between those working at the Federation level, between clubs, and between club members.
- To keep the members informed of problems and activities regarding the use of Public Lands.
- To continue to support Federation-sponsored programs.

The Rocky Mountain Federation is composed of a membership of approximately 14,000 members in the following states: Arizona, Arkansas, Colorado, Kansas, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming.

The work of the Federation is directed by the Executive Committee, composed of: President, Vice-President, Secretary, Treasurer, Historian, State Directors, and the two immediate Past-Presidents.

Reminder — next RMF Newsletter is the August 2026 issue. Deadline for articles is July 15, 2026.

- I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.
- I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
- I will cooperate with field trip leaders and those in designated authority in all collecting areas.
- I will report to my club or Federation officers, Bureau of Land Management, or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
- I will appreciate and protect our heritage of natural resources.
- I will observe the "Golden Rule," will use "Good Outdoor Manners" and will at all times conduct myself in a manner which will add to the stature and public image of rockhounds everywhere.

