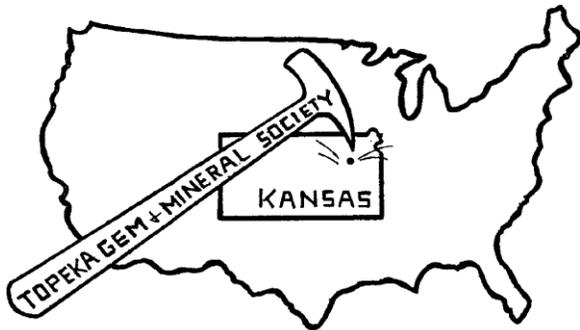


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# THE GLACIAL DRIFTER



[www.topekagemandmineral.org](http://www.topekagemandmineral.org)  
 Facebook: Topeka Gem and Mineral Society Field Trip

The Topeka Gem & Mineral Society, Inc.  
 Organized December 3, 1948

Member of Rocky Mountain Federation of  
 Mineralogical Societies American Federation of  
 Mineralogical Societies



The Glacial Drifter, Vol. 57, No. 02, Feb. 2014

The Purpose of the Topeka Gem & Mineral Society shall be exclusively educational and scientific: (1) to promote interest in geology and the lapidary arts; (2) to encourage the collection and display of rocks, gems, and minerals; (3) to encourage field trips and excursions of a geological, or lapidary nature; and (4) to encourage greater public interest and education in gems and minerals, cooperating with the established institutions in such matters.

Meetings: 4<sup>th</sup> Friday of each month, September to May, 7:30 pm, Stoffer Science Hall, Room 138, Washburn University.  
 No meeting in December unless notified of a change. Picnic meetings are held June, July and August.

Dues: Individual, \$15.00; Couple, \$20.00; Junior (under 18 years of age), \$5.00. Dues are collected in December for the following year. Send dues to Millie Mowry, Treasurer, 1934 SW 30<sup>th</sup> St, Topeka, KS 66611.

## 2014 OFFICERS AND CHAIRS

President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1 <sup>st</sup> Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Larry Henderson	-----
2 <sup>nd</sup> Vice Pres.	Carolyn Brady	233-8305	Publicity	Christy Bien	608-1890
Secretary	Cinda Kunkler	286-1790	Welcome/Registration	Jason Schulz	379-5538
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	379-5538
Directors	George Reed	836-9277	AFMS Scholarship	Cinda Kunkler	286-1790
	Harold Merrifield	286-3548	Editor/Exchange Editor	Millie Mowry	267-2849
	Chuck Curtis	286-1790	Show Chairman	Harold Merrifield	286-3548
Historian	Deborah Scanland	273-3034	Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Harold Merrifield	286-3548	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Larry Henderson	-----
Librarian	Lucy Hrenchir	267-3325			
Web Master	Jason Schulz	379-5538			

Area Code for all numbers is (785).



# TLC REPORT

Ernie Roger has been in the hospital with bleeding ulcers. She is in hopes to come home on Thursday, but plans on staying with her daughter Tina for a while.  
Chuck Curtis made a visit to the hospital to have his appendix out and is recouping at home.  
Deborah Scanland's husband is back in the hospital where she is spending most of her time.

We hope the rest of the members are well and staying in where it is warm.



## Fieldtrip Calendar February 2014

- Feb. 18, 7:00 p.m. Fossil Special Interest Group, Show & Tell, at Baker's Dozen, 4310 SW 21st St, Topeka, KS.
- Mar. 1, Field Trip, Location to be announced. Meet at McDonalds, 11<sup>th</sup> & Kansas, leave at 9:00 a.m.
- Mar. 4, 7:00 p.m. Fossil Special Interest Group, Show & Tell, at Baker's Dozen, 4310 SW 21st St, Topeka, KS
- Mar. 7, Kansas City Gem & Mineral Show. The Rockhound mobile will be going to the Kansas City Gem & Mineral Show, Friday, March 7th if anyone would like to go. We will meet at McDonalds, 11th & Kansas Ave., and leave at 9:00 am.
- Mar. 18, 7:00 p.m. Fossil Special Interest Group, Show & Tell, at Baker's Dozen, 4310 SW 21st St, Topeka, KS
- Mar. 29, Field Trip, Location to be announced. Meet at McDonalds, 11<sup>th</sup> & Kansas, leave at 9:00 a.m.

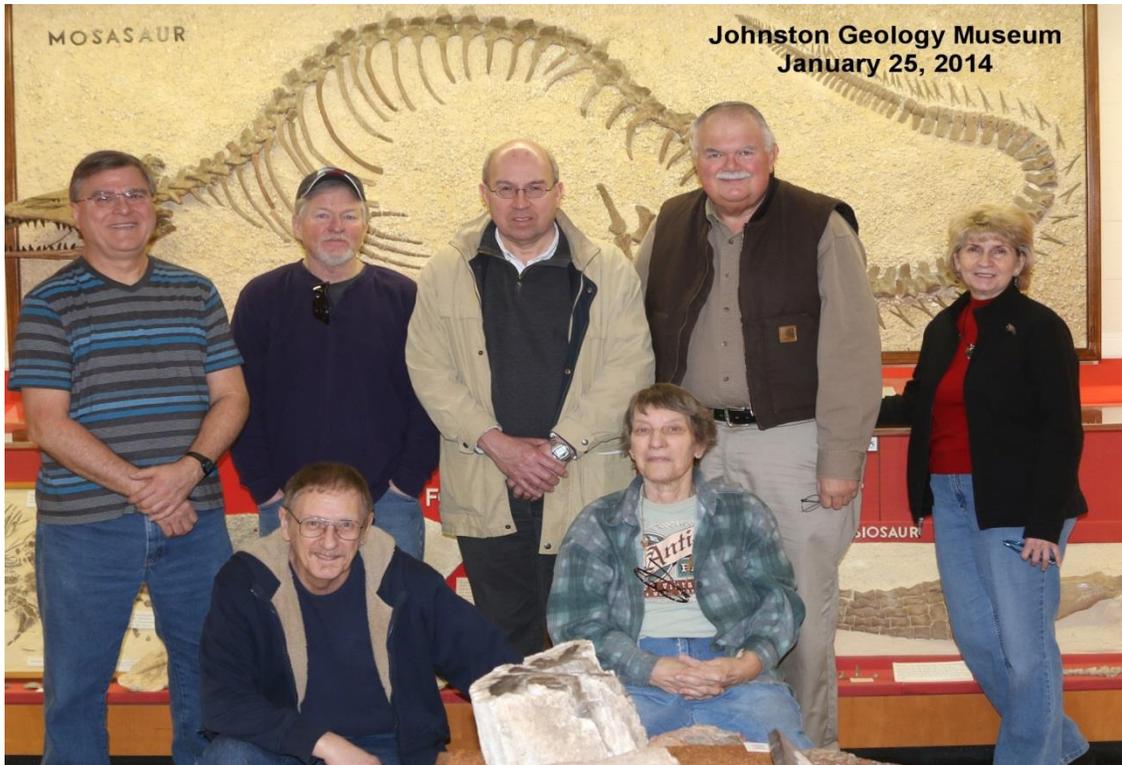
Public Facebook Page: <http://www.facebook.com/pages/Topeka-Gem-and-Mineral-Society-Field-Trips/92795058262> An up-to-date Calendar can be found on the Topeka Gem and Mineral Society Website: <http://topekagemandmineral.org/calendar.html>  
Trips dates are tentative and subject to additions and change. E-mail Larry if you have an interest in any of these trips [LHenderson85@gmail.com](mailto:LHenderson85@gmail.com)

### Up Coming Show Dates

March 1-2: OK. City, OK. OK. State Fairgrounds Expo Hall 3, 3212 Wichita Walk, [www.thebeadmarket.net](http://www.thebeadmarket.net)

March 7-9: Kansas City, MO, KCI Expo Center, 11730 NW Ambassador Dr. [www.kcgemshow.org](http://www.kcgemshow.org)

April 25-27: Wichita Gem Show—Cessna Activity Center, 2744 George Washington Blvd.; Fri. 9-7, Sat. 10-7, Sun. 10-5; adults \$5, students (12-17) \$1, children free with parents; contact Gene Maggard, 8318 S.E. Hwy. 77, Leon, KS 67074, (316) 742-3746; e-mail: [gandpmaggard@gmail.com](mailto:gandpmaggard@gmail.com)



On Saturday, January 25, 2014 a group of us went to Emporia, Kansas to visit the Johnston Geology Museum, Emporia State University. Dan Koester from Emporia joined us. Dr. Michael Morales, Geology Museum Director and Associate Professor: Paleontology, General Earth Science, showed us, and talked about, some vertebrae fossils, including a smilodon (saber-toothed tiger) skull. He gave us an update on plans for the museum. We then toured the museum, including the world famous Hamilton Quarry Fossil Assemblage.

We eat at the Pizza Ranch buffet. The variety of food was good, particularly the chicken.

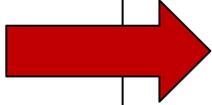
I heard, from my son, that Plumb Bazaar Beads had rocks and fossils for sale, so we went by there. Several purchases were made. It was worth the trip. Everybody said they had a good time.

Larry Henderson, Field Trip Coordinator

 ***YOUR DUES IS DUE!***  
If you joined before October 2013.

Look at your Membership Card to see when it is due.

**If in doubt**—contact Millie at [rock2plate@aol.com](mailto:rock2plate@aol.com) or 267-2849  
Send your dues to: TGMS Treasurer, 1934 SW 30<sup>th</sup> St., Topeka, KS 66611  
Single: \$15 Couple: \$20 Child (under 18) \$5.

 **The 2014 Club Directory will be printed on March 1, 2014. If your dues is not paid by then your name will not be on it.**

# The California Poppy – An Indicator of Copper

From *California Mining Journal* (Edgar B. Heylum Ph.D. & Richard Pearl...date unknown), via *Strata Gem* (Aug. '97), via *The Rollin' Rock* (Oct. '02); via *Fire & Ice* April 2003 V1 NO.4.

Plants have been used by prospectors searching for minerals since the Middle Ages. Some plants favor soil that contain or have an abundance of a particular element. Many prospectors use the desert trumpet as a gold indicator even though it has not been proven to be a true gold indicator. Plants of the mustard family excel in absorbing uranium and may be of use to the geobotanical prospector who is searching for uranium minerals.

The California poppy is a known indicator of copper as it requires copper to exist. Some copper compounds are soluble in water and can be carried for miles by ground water, so the presence of poppies does not necessarily indicate that there are copper minerals in the immediate area.

Roadside occurrences of poppies should be ignored because of the roadside drainage and the presence of various contaminates from passing cars and trucks.

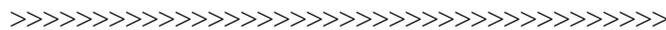
The presence of poppies in the open desert is much more meaningful. Near the San Manuel Mine, north of Tucson, poppies grow in profusion on the ground known to be mineralized ground. On nonmineralized ground, the poppies terminate abruptly, and the fault line can be traced by means of the poppies. Often, dumps at copper mines are completely covered by poppies.

Since gold, silver and other metals are frequently associated with copper, the presence of the California poppy can be a clue to the possible presence of valuable metal deposits. For the Rockhound, many of the primary and secondary copper minerals are of interest: they include chalcopyrite, turquoise, malachite and many more.

## More On Poppies

By Jeff Lines

Not sure if you know or not, but located near Lancaster, CA is the Antelope Valley California Poppy Reserve (<http://www.calparksmojave.com/poppy/>). Check out this website for details. If you don't have access to a computer, the telephone number for the reserve is 661-724-1180. It should be really good there from the end of March through April. I plan on going there near the end of March to get some photographs of the hillsides carpeted with poppies. Wonder if there was ever a copper prospect in the area.



## CLUB VESTS

Any one that is interested in ordering the blue club vests at a reasonable cost contact Millie at [rock2plate@aol.com](mailto:rock2plate@aol.com) or 267-2849. We need 7 or more orders to get the better price of \$14.31 plus shipping and if any tax. I have 2 orders now.

The size range is:

- Small 30-32
- Medium 34-36
- Large 38-40
- XL 42-44
- 2XL 46-48 add \$3
- 3XL 50-52 add \$5

They are high quality twill fabric, 65% Polyester/35% cotton with wrinkle resistant and soil releasing finish and 2 pockets.

For club name badges they run less than \$9 if you want one contact me also.

## TELLING LAPIS LAZULI FROM SODALITE

If you want to know whether you have sodalite, lapis or imitation lapis, look for pyrite inclusions. Lapis-Lazuli will have pyrite inclusions. Sodalite does not have pyrite inclusions. In imitation Lapis the inclusions are golden flakes not pyrite crystals.

Lapis Lazuli is a gemstone with a rich blue color. It has a hardness of 5-5-1/2, is composed of sodium aluminum silicate with some sulphur. Most of the properties of lazurite are similar to those of sodalite, but the association of pyrite with lazurite determines the identification.

Sodalite is composed of sodium aluminum silicate with chlorides. It is 5-1/2 to 6 on the hardness scale and the color is usually blue but may tend toward white, grey, yellow or red. It is associated with other feldspathoids, so called because they resemble feldspars but are of a slightly different compositing.



*Sodalite, Courtesy of Wikipedia*

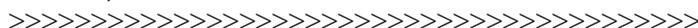


Lazurite, Ladjuar Medam (Lajur Madan; Lapis-lazuli Mine), Sar-e-Sang District, Koksha Valley (Koksha; Kokcha), Badakhshan (Badakshan; Badahsan) Province, Afghanistan *Courtesy of Wikipedia*

When working Lapis to a polish it requires fine sanding to prevent pyrite inclusions from protruding. Leather may be used with chrome oxide for polishing. Sodalite, on the other hand polishes perfectly on felt with cerium oxide, after a fine job of sanding.

A drop of Hydrochloric acid is good for testing lapis-lazuli. A drop of it on the blue stone creates an odor of hydrogen sulfide. On the white areas of the stone it usually effervesces because the white is usually calcite. This test will distinguish Lapis from Sodalite.

This report was inspired by an article from Tulip City Conglomerate via the Roseville Rollin" Rocks via Rolling Stones Beacon April 2011 via "Cutting Remarks" May 2011; via Pueblo Rockhounds Sep 2013.



### Kansas poem for my friends...

It's winter here in Kansas

And, the gentle breezes blow

Seventy miles an hour

At twenty-five below.

Oh how I love Kansas

When the snow's up to your hips

You take a breath of winter

And your nose gets frozen to your lips..

Yes, the weather here is wonderful,

So, I guess I'll hang around

I could never leave Kansas,

My feet are frozen to the ground.

(Author unknown)

# PERLITE

Perlite is not a trade name but a generic term for naturally occurring siliceous rock. Perlite is an amorphous volcanic glass that has a relatively high water content, typically formed by the hydration of obsidian. It occurs naturally and has the unusual property of greatly expanding when heated sufficiently. It is an industrial mineral and a commercial product useful for its light weight after processing. The distinguishing feature which sets perlite apart from other volcanic glasses is that when heated to a suitable point in its softening range, it expands from four to twenty times its original volume. This expansion is due to the presence of two to six percent combined water in the crude perlite rock. When quickly heated to above 1600°F (871°C), the crude rock pops in a manner similar to popcorn as the combined water vaporizes and creates countless tiny bubbles which account for the amazing light weight and other exceptional physical properties of expanded perlite. This expansion process also creates one of perlite's most distinguishing characteristics: its white color. While our perlite rock is a light gray, it's color changes to white after expansion. Expanded perlite can be manufactured to weigh as little as 2 pounds per cubic foot making it adaptable for numerous applications. The expansion process will control many of the variables of the final product.



In most instances (though not all) our perlite is expanded in vertical furnaces. When the processed, unexpanded perlite is introduced into the furnace it falls down towards the heat source. As it falls it begins to expand becoming buoyant in the air stream running through the system. The furnace operator can control the density of the finished product by adjusting the temperature and air flow in the furnace.

New Mexico continues to lead the country in perlite production with the largest output of six producing states, and the main markets for New Mexico's perlite is used in building construction, as filter aids, as a filler, and in agriculture. Check out your copy of (Bulletin 83) Mineral Deposits of Western Grant County, New Mexico for locations that have been mined here. Also Bulletin 70, Geology of the Knights Peak Area, Grant County, NM lists a mine.

Source: The Grant County Rolling Stones Gem & Mineral Society - Beacon July – via

“Cutting Remarks” August 2011; via Pueblo Rockhounds Sep 2013.  
Perlite after being heated – Courtesy of Wikipedia



## SHOP TIPS:

### Vinegar, Not Just for Salads

One way to remove carbonates such as calcite from quartz and amethyst is to cover the specimen with fresh vinegar and allow to sit overnight. Repeat if necessary. Wash and then place crystals in washing type ammonia for 8-12 hours. Remove, rinse thoroughly, wipe and air dry. If you have sore hands from hard rock mining, soak your hands in warm vinegar water and the swelling and soreness will disappear. (Sept. 2011 -Desert Gems; via Ammonite Nov 2013)

**When polishing**, do not use a saucer, dish, or pan and messy brush to apply the polishing agent. Such methods invite contamination. Instead, procure a plastic bottle with a long tip, hair dressers dispose of many of them every day. Put the polishing agent into the bottle and add water and also a small stone or some buckshot. The purpose of the stone or buckshot is to agitate and stir up the polishing powder when you shake the bottle. Shake well and squirt the solution on the felt, leather or canvas. No more contamination. There is no waste of polishing agent and the agent may be applied exactly where you want it. (Original source unknown. Via the Agatizer 2/98, via The Nugget 5/98; via: Ammonite Nov 2013)

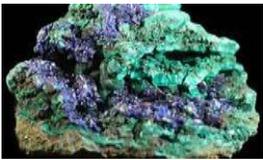
**Shop Hint** - Each time you clean your lapidary saw, reverse the blade. This will give longer life to the blade as you wear each side evenly. (The Pseudomorph via The Petrified Log- Nov 2001, via: Ammonite Nov 2013)

# JUNIOR ROCKHOUND PAGE

Facebook: <http://www.facebook.com/TopekaJuniorRockhounds>



## MAGNIFICENT MINERALS



Minerals quite simply, are the building blocks for making rocks, and a rock is made up of one or more minerals. When you look at a rock and see different colors, those colors are minerals that make up that specific rock. There are over 3,000 named minerals; however, there are really only about 30 minerals that people who are not geologists will come across or need to concern themselves with. There are four criteria that must be met in order for something to be called a mineral:

1. Not formed from the remains of plants or animals; that is, *inorganic*
2. Naturally occurring, not man-made
3. Has the same chemical makeup wherever it is found (Ex: Quartz is always  $\text{SiO}_2$ )
4. Has a crystalline structure, which means that it has a specific repeating pattern of atoms.

If all four of the criteria are not met, the substance is not a mineral. Therefore, “minerals” made in a lab are not true minerals because they did not occur naturally. Here are a few tests that geologists rely on to identify what minerals they are looking at. There are many other tests that geologists use; however, the tests listed above are usually sufficient for the amateur, and can help you identify the mineral.

**Color** – Color is a very common way to try to identify a mineral; however, it should not be used on its own. Because any mineral can be any color, you cannot use color alone to identify a mineral. Color can merely help you or sometimes, confuse you!

**Shape** – Minerals form in certain shapes based on the elements that make them up. Some minerals, such as quartz, only form in one particular shape. Others, such as calcite, can be found in multiple shapes. Sometimes shape isn’t enough and you need to use other tests to help you identify a mineral.

**Hardness** – How hard or soft a mineral is can tell you right away what mineral it could or could not be. The hardness of minerals is based on the Mohs Hardness Scale, which ranges from 1-10, 1 being the softest and 10 the hardest.

**Streak** – The streak of a mineral is simply the color of a powder that’s left behind when the mineral is scratched along a white, ceramic, unglazed tile. If the color of the mineral changes from one specimen to another, the streak color is always the same.

**Luster** – Luster simply leans the way that light reflects off a mineral. Light can make a mineral look very dull or as shiny as a diamond. There are many other tests that geologists use; however, the tests listed above are usually sufficient for the amateur, and can help you identify the minerals. (<http://beyondpenguins.ehe.osu.edu/issue/rocks-and-minerals/the-basics-of-rocks-and-minerals-and-polar-geology>)