

June 2011

PICKIN'S AND DIGGIN'S

WILLIAMSON COUNTY GEM AND MINERAL SOCIETY



Presidents Message: I want to say thanks for reelecting me; together we will keep on improving the club. We have all done a great job so far, I am looking forward to see how we will soar.

Bekki Miracle was elected as our new 2nd Vice President (Show Chair) and Dana Schubert was elected our Secretary.

I want to give a big thank you to Bill Medford who has been our 2nd Vice President (Show Chair) forever it seems, and he has done a fantastic job. He will continue to work with Bekki to help her get our next show set up. I also want to thank Jo Ann for being our secretary, which she did a marvelous job and I do appreciate her much. She will work with Dana to let her know what she needs to do as secretary.

I was quite pleased with our club picnic, we had some great food, great company and some really nice minerals. We had 38 members at this years picnic, getting bigger every year, lets all attend next year. Bill Medford was our Chef again this year, Kelly Howell help prepare the meat. Kelly was also the person in charge of getting all the potluck lined up. You did a great job and I thank you for taken over that very big job. It was hot but a nice breeze always seem to blow at Berry Springs Park. I had a Grand Time and hope everyone else did too.

Our next meeting is July 10th at 2 P.M. At Friendly Connections, lets all attend, bring all your new or old suggestion and lets talk about what we want in the coming year. There is a slate of officers but our club is all about everybody joining in and making it better. I t takes each and everyone of us. I am proud to say I am a member, I am loud (as you all know), at the shows I attend, I wear our colors proudly, everybody knows who we are. I am always getting compliments on pour club, I let everyone I meet know that our club is such a

warm and wonderful group, that we all work at being who we are, a club to be proud of.

Thanks to all of you for all the hard work, I appreciate each and everyone of you.

Wanda Reynolds
President WCGMS

JUNE BIRTHSTONE

June Birthstone : *Pearl*
Birthstone Color : *White*

From one of the humbles of all life forms, the mollusk, comes the pearl, a gem of unsurpassed beauty and elegance. Ancient civilizations had many stories to explain the origin of June's birthstone, such as the Greek belief that perals were the hardened tears of joy that the goddess of love shook from her eyes as she was born from the sea. According to Arb legend, pearls were formed when oysters were lured from the depths of the ocean by the beautiful moon and then swallowed moonlit dewdrops. And the Ancient Chinese thought that these gems originated from the brains of dragons.

The scientific explanation for natural pearls is almost as mystifying as folklore. When an irritant, such as a small parasite or fish lodges in the flesh of an oyster, mussel, or clam, protective substance called "nacre" is produced. Over years layer upon layer of shimmering nacre coats the intruder, creating a lustrous pearl. Natural pearls are relatively rare, so a process evolved in which a piece of shell or bead was placed inside a

Monthly Schedule for July- December 2011

July 10-Monthly meeting: New Officers take over
Program: Looking for someone to present
Mineral of the Month - PYRITE

August 14- Monthly meeting: Programs- Bekki Miracle-
Jewelry making
Mineral of the month - GYPSUM

September 11- Monthly meeting: Program- Bill
Morgenstern- Proper Identification and labeling of
specimens, setting up an exhibit case
Mineral of the Month – QUARTZ

October 9- Monthly meeting: Program- Will Holton-
Agate stained glass
Mineral of the month - AZURITE

November 13 – Monthly meeting: Program - Stuff grab
bags for WCGMS show
Mineral of the Month - STIBITE

December 11 – Christmas Party
Mineral of the Month – TOURMALINE

FIELD TRIPS

August – To be announced (fossils)

September – To be announced (petrified wood)

October – To be announce (mineral)

November – To be announced (agate)

Don't forget Our Meetings

We meet at Friendly Connections
4143 Williams Drive
Georgetown, TX.
Meeting Time: 2nd Sunday every month at 2:30 PM

(Birthstone continued)

results in a cultured pearl, which accounts for about 90 percent of the pearl industry Divers find natural pearls world wide but most cultured pearls come from Japan as they have a cultured pearl industry there. These gems come in a variety of colors from pure white to pink, yellow, gray and black. They also come in different shapes and sizes.

From: Google>About-Birthstone

Editors Notes: *All newsletter submissions will be 20th of each month. All items received after that date will be put into the following months edition.*



THE MINERAL PYRITE

- **Chemistry:** FeS₂, Iron Sulfide
- **Class:** Sulfides
- **Group:** Pyrite
- **Uses:** A very minor ore of sulfur for sulfuric acid, used in jewelry under the trade name "marcasite" and as mineral specimens.
- **Specimens**

Pyrite is the classic "Fool's Gold". There are other shiny brassy yellow minerals, but pyrite is by far the most common and the most often mistaken for gold. Whether it is the golden look or something else, pyrite is a favorite among rock collectors. It can have a beautiful luster and interesting crystals. It is so common in the earth's crust that it is found in almost every possible environment, hence it has a vast number of forms and varieties.

Bravoite is the name given to a nickel-rich iron sulfide. It is closely related to pyrite but contains up to 20% nickel. Some mineral books treat it as a variety of pyrite.

Pyrite is a polymorph of **marcasite**, which means that it has the same chemistry, FeS₂, as marcasite; but a different structure and therefore different symmetry and crystal shapes. Pyrite is difficult to distinguish from marcasite when a lack of clear indicators exists.

Pyrite's structure is analogous to **galena's** structure with a formula of PbS. Galena, though, has a higher symmetry. The difference between the two structures is that the single sulfur of galena is replaced by a pair of sulfurs in pyrite. The sulfur pair are covalently bonded together in essentially an elemental bond. This pair disrupts the four fold symmetry that a single atom of sulfur would have preserved and thus gives pyrite a lower symmetry than galena.

Although pyrite is common and contains a high percentage of iron, it has never been used as a significant source of iron. Iron oxides such as **hematite** and **magnetite**, are the primary iron ores. Pyrite is not as economical as these ores possibly due to their tendency to form larger concentrations of more easily mined material. Pyrite would be a potential source of iron if these ores should become scarce.

Pyrite has been mined for its sulfur content, however. During WWII, sulfur was in demand as a strategic chemical and North American native **sulfur** mines were drying up. A sulfide deposit near Ducktown, Tennessee contained commercially valuable deposits of pyrite and other sulfides such as **pyrrhotite** and **pentlandite** and produced the needed sulfur as well as iron and other metals. The sulfur was used in the production of sulfuric acid, an important chemical for industrial

purposes. Now most sulfur production comes from H₂S gas recovered from natural gas wells.

PHYSICAL CHARACTERISTICS:

- **Color** is brassy yellow.
- **Luster** is metallic.
- **Transparency:** Crystals are opaque.
- **Crystal System** is isometric; bar 3 2/m
- **Crystal Habits** include the cube, octahedron and pyritohedron (a dodecahedron with pentagonal faces) and crystals with combinations of these forms. Good interpenetration **twins** called iron crosses are rare. Pyrite is commonly found in nodules. A flattened nodular variety called "*Pyrite Suns*" or "*Pyrite Dollars*" is popular in rock shops. Also massive or reniform and replaces other minerals and fossils forming pseudomorphs or copies.
- **Cleavage** is very indistinct.
- **Fracture** is conchoidal.
- **Hardness** is 6 - 6.5
- **Specific Gravity** is approximately 5.1+ (heavier than average for metallic minerals)
- **Streak** is greenish black.
- **Other Characteristics:** Brittle, striations on cubic faces caused by crossing of pyritohedron with cube. (note - striations on cube faces also demonstrate pyrite's lower symmetry). Pyrite (unlike gold) is not malleable.
- **Associated Minerals** are [quartz](#), [calcite](#), [gold](#), [sphalerite](#), [galena](#), [fluorite](#) and many other minerals. Pyrite is so common it may be quicker to name the unassociated minerals.
- **Notable Occurrences** include Illinois and Missouri, USA; Peru; Germany; Russia; Spain; and South Africa among many others.
- **Best Field Indicators** are crystal habit, hardness, streak, luster and brittleness.

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WCGMS Website is: www.wcgms.com

check it out. There are some great items of interest.

Be safe if you **smoke** please dispose of smoking material properly. Do not throw Cigarette butts from your car window. If you use Charcoal make sure it is completely out before emptying the grill.

Report all Fires to 911. The life you save may be your own. Only you can prevent wildfires, be careful.

With this **hot** dry weather everything is looking for water, set a pan of water in the shade and the birds will really appreciate you.

Stay Hydrated drink plenty of **water** and stay out of the mid day sun if possible. If you sweat heavily you may eat a little more salt.