

Hatrockhound Gazette 2020

PO Box 1122, Hermiston, Oregon 97838



Meetings at 6:30 on the 2nd
Tuesday of each month
First Christian Church of
Hermiston:
775 West Highland
(go to back of church)

Officers:
President –Bill Shipp
V. Pres. – Mike Filarski
Secretary – Rita Watterson
Treasurer – Mel Lambert
Members at Large – Laura
Tiffany, Doug Gill

Newsletter/Website – Judi Allison, 1701 NW 11th St, Hermiston, OR 97838 541-720-4950



Hatrockhounds Gem and Mineral Society is Affiliated with:

The Northwest Federation of Mineralogical Societies
And The American Federation of Mineralogical Societies



AFMS Rockhounds “Code of Ethics”

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

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 such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places 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 supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

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.

Hatrockhound Gazette – July 2020 Issue

July Meeting: Tuesday, July 14, 2020, 6:30 pm
SHOW AND TELL

Bring something you have possibly been working on while being “cooped up”. Or maybe you were able to get out and look for a few rocks. At any rate. . Let’s enjoy sharing our hobby with our fellow rockhound friends again.

We will have hand sanitizer and wipes to clean chairs. Please help before you leave to wipe off your seats.

NOTE: Masks, sanitizing and distancing are still part of our daily protocol. We need to honor the protocol to keep the church (and ourselves) from being in jeopardy. (Please bring your own drink. Individual treats will be available.)

Come for the fun of it!!!

As you all know, these last few months have been interesting, to say the least. As far as I know, we have all stayed well, though, and that counts for everything.

The big wind storm managed to visit the Tiffany household where we had stored a number of buckets of rough rock for our silent auctions. The buckets were placed at the base of a large tree that had a tree house platform above it to protect a bit from the weather. Well, that tree decided it was too big and too old to withstand the winds and blew over, spilling out some of our collection. In May, Laura, Mike, Trish, Mel and Judi managed to pick up rocks and move the buckets to a safer place. . .no trees to blow over. Thanks to them for their work. There are probably still a few rocks buried under the tree to perhaps be discovered by future rockhounds millenniums from now, but at least the majority were rescued.





See Mike Work.
Mike Works Hard.
☺ ☺ ☺ ☺



PICNIC: SATURDAY, AUGUST 22nd 11-2
MCKENZIE PARK GAZEBO

Club will furnish chicken, rolls, water and utensils.

Please bring a pot luck item to share.

SILENT AUCTION -PROCEEDS TO THE CLUB

NO REGULAR MEETING IN AUGUST.

See you September 8th.



Legrandite

The Ojuela Mine, Mapimi, Durango, Mexico, has produced the world's very best legrandite specimens found anywhere in the world. In 1979 the largest Legrandite specimen ever found was discovered in the Ojuela Mine. It is lemon yellow and is 7 inches long. It was given the name "The Aztec Sun" (pictured left). Its size, eye-catching lemon-yellow color, and overall form make The Aztec Sun the very best Legrandite ever found. It is also considered one of the best mineral specimens ever recovered.



A month after the Aztec Sun was discovered, another very large Legrandite crystal group was removed from the Ojuela Mine. This beauty is a single large spray of Legrandite crystals and is 9 inches! It has been named “The Aztec Club.” Since then, many smaller Legrandite crystal groups have been found at the Ojuela Mine.

Legrandite is a “secondary mineral.” This means that it formed when arsenic- and zinc-rich mineral deposits are changed chemically by hot water and oxygen.

Legrandite was named after Louis C.A. Legrand (July 30, 1861 - May 27, 1920). He was a Belgian mining engineer and mineral collector who collected and described the first specimen.

Chemical Formula: $Zn_2(AsO_4)(OH) \cdot (H_2O)$;

Crystal System: Monoclinic; Color: Yellow; Hardness: 4.5 - 5;

Luster: Vitreous; Streak: White;

Specific Gravity: 4; Fracture: Conchoidal

Mini Miners Monthly Volume 12 No. 2 February 2020

Rock Science: Marcasite

The “Other” Iron Disulfide -

February 20, 2020

By Steve Voynick

Mention iron disulfide and the mineral that comes to mind is pyrite. And well it should, for pyrite, widely collected and the most abundant of all sulfide minerals, is well-known for its brassy color, metallic luster, beautifully developed cubic and dodecahedral crystals, and fascinating history as a fire-starter and a source of sulfur.

Like pyrite, marcasite is also an iron disulfide (FeS_2), albeit one with much less familiarity. Marcasite and pyrite are polymorphs, minerals with identical chemistries but different crystal structures.

Pyrite crystallizes in the cubic system, marcasite in the orthorhombic system. Both minerals are generally similar in their brassy colors, metallic luster, hardness, and density, but differ substantially in origin and levels of chemical stability.

Pyrite usually forms in conditions of high temperature and pressure, and in chemical environments of low acidity or even alkalinity that enable iron and sulfur ions to join together in compact, cubic arrangements with relatively strong atomic bonding.

This specimen of marcasite from Komořany in the western Czech Republic exhibits the typical spear-like habit. Wikimedia Commons.



Conversely, marcasite crystallizes in low temperatures and pressure, and in highly acidic environments in which iron and sulfur ions join in a looser orthorhombic structure with weaker atomic bonding. It forms crystals, nodules, and concretions in sedimentary rock, most often in strata of shale, limestone, peat,

and coal. Marcasite frequently occurs as twinned, dipyramidal, orthorhombic crystals with coxcomb or spear-like habits.

With its weak atomic bonding, marcasite is unstable and susceptible to rapid oxidation, especially in wet or humid conditions. It eventually oxidizes into melanterite



(FeSO₄·7H₂O), a crumbly, yellowish-white hydrous iron sulfate. This type of oxidation reaction, known as “pyrite decay,” produces heat, a disagreeable sulfur odor, and sulfuric acid.

Marcasite was long confused with pyrite. In antiquity, both served as “fire-starters” that emitted sparks when struck with iron or flint. When subjected to high-impulse mechanical stress, both marcasite and pyrite break their covalent, iron-sulfur bonds and release heat and light energy in the form of sparks.

The word “marcasite” stems from the Arabic markaschatsa, meaning “firestone” and referring generally to pyrite and other similarly colored, metallic minerals. Marcasite and pyrite were thought to be the same mineral until the early 1800s, when crystallography became a key to mineralogical classification. Although the orthorhombic form of iron disulfide was formally named “marcasite” in 1845, the names “marcasite” and “pyrite” continued to be used interchangeably.

The premier marcasite source is the Komořany lignite mine in the western Czech Republic. Komořany is located within the North Bohemian Brown Coal Basin, a 100-mile-long, coal-rich, geological basin.

During the warmer, wetter climate of the Miocene Epoch some 20 million years ago, dense forests and profusely vegetated swamps covered this region. Large masses of organic matter became buried in swamps, underwent a process of coalification, and converted to lignite, a low-grade form of coal.

The ready susceptibility of marcasite to oxidize into basic iron oxides and sulfuric acid has caused serious environmental problems at Komořany, an extensively mined area that is Europe’s worst example of mine-drainage pollution.

Because marcasite is chemically unstable, it is not suitable for jewelry use.

Nevertheless, its name is still used in the jewelry trade. In the late 1800s, mourning jewelry, a style that emphasized schorl, jet, and pyrite beads, gained great popularity, especially in Victorian-era England.

But pyrite, then a major industrial source of sulfur, was saddled with a blue-collar image that had little appeal to jewelry buyers. Jewelers chose instead to label their pyrite beads as “marcasite,” a name rooted in the Arabic that conjured images of the mysterious Middle East. This marketing usage, however misleading, continues today and explains why our modern “marcasite”-bead jewelry is really made of pyrite

https://www.rockngem.com/rock-science-marcasite/?utm_source=newsletter&utm_medium=email&utm_campaign=rg_newsletter022020

NOTE: I am guessing you think the Komořany is a typo. I got it directly from the article just like that. . . .



**These two celebrated
their 65th anniversary
on June 30!
Congratulations,
Marilyn and Elmer!
We Miss You!**

