09/20/08 Combined board meeting minutes

Washington State Mineral Council Minutes Board Meeting @ Ellensburg

Stu opened the meeting at 9:45am

There were eleven attendees at the meeting, nine from the West side and two from the East side.

Kathy gave the treasurer's report. Due to the recent instability of the financial market and the fact the Walker Valley savings account is at Washington Mutual, the question came up about moving the money to a more stable bank. It was decided to leave the money at WAMU since it is insured by the FDIC.

Field trips/Wagonmaster report:
Ed reported that there are three field trips remaining on the calendar. October 4 to Money Creek, October 18 & 19 to Salmon Creek, and November 8 to Blanchard Hill.

The turnouts at the field trips have been smaller than in the past but are still working out quite well, especially for people new to the hobby.

Ed reported that the fences have been mended with the Pow-Wow and that the two organizations are working together again coordinating their field trips.

Ed agreed to hold another Wagonmaster field trip planning meeting at the Boeing facility some time in late January. The meeting date will be reported here when available.

Old business
The situation at Saddle Mt is unchanged. The WSMC board requests that all Eastsiders monitor the local BLM office and Saddle Mt for any changes in the situation and report it immediately.

New business
Ed Lehman reported that the WSMC display material, about four cases worth, needs a new home since no one has asked to display it at a show for at least 5 years. One suggestion was to donate the material to a museum such as the Rice NW Rockhound Museum outside of Portland. The material would be exposed to many more people in such a place. It was decided to bring this up at the meeting in November.

Ed also brought up the issue of the emergency medical kit the WSMC purchased about 12 years ago. This equipment requires an EMT to use safely and we have not had anyone qualified for several years now. Ed though we might be able to donate some of the material to an organization such the various Search and Rescue groups. Ed will try to get the Snohomish SAR to assess the state of the equipment and determine if anything of value can be donated.

The board agreed to reimburse Stu for the new set of locks for Walker Valley.

This year the West side did not have a board meeting in August so there was a long gap between June and September. It was decided to once again hold board meetings on the third Tuesday in August.

Nominating committee:
The Nominating committee will be asking people to fill positions on the board and report in November.

Miscellaneous news:
Steve Livingstone reported that Silver Capital Arts will close on September 20. He also passed out flyers about his new Rock Ranch in the Spokane Valley. His hope is to preserve some of the rich mining history of the area.

Ed Thomas reported that he is trying to get a club started in the Goldendale area. Ed also reported that he has been working with some of the local landowners in Klickitat county on opening their land to guided field trips. These areas have been closed for several decades due to abuses by some individuals and the landowners are reluctant to allow collecting. His hope is that we will be able to show that we can run a tightly controlled field trip to this area which might open the door to further opportunities.

Meeting adjourned,
Submitted by Glenn Morita, Secretary Pro-Tem

IMPORTANT CHANGES TO
EMERALD CREEK GARNET
AREA OPERATIONS
BEGINNING SATURDAY, JULY 19, 2008

The St. Joe Ranger District has announced significant changes to the Emerald Creek Garnet Area Operations. Due to overwhelming use at the Garnet Area on weekends a limit of 170 people has been established for daily use at the area. Well over 200 people purchased permits at the site on July 12th and that created a situation where folks were delayed in getting to the stock pile and the sluice boxes to wash their gravel. The 170 permit limit is designed to provide a positive experience to those who purchase permits to find Garnets at Emerald Creek.

Beginning Saturday, July 19th, a limitation of 170 folks will be allowed to purchase permits to dig garnets in any single day. Once that number has been reached additional visitors will be turned away. Please call the Clarkia Office of the St Joe Ranger District at (208) 245-1134 before heading to Emerald Creek, especially if you are getting a late start on Saturday or Sunday. Forest Service employees will update the Clarkia Office both Saturday and Sunday mornings regarding operations at the Emerald Creek Garnet Area with specific information about the number of visitors.

For more information about the Emerald Creek Garnet Area and the need for a limitation on daily visitors please contact Carol Ratcliffe at (208) 245-6074 or by email at cratcliffe@fs.fed.us.

Submitted by Christina Morrissey

Multifaceted Mineral:
Intense heat, pressure bear new form of silica

By Sid Perkins

Science New, August 6th, 2005; Vol.168 #6 (p. 84)

By squeezing a sample of quartz to pressures higher than those deep within Earth while zapping the material with a laser, scientists have created an exotic mineral previously unknown on Earth. They speculate that it may occur naturally on some large planets.

Silicon dioxide, or silica, is one of Earth's most common chemical compounds. It makes up more than 60 percent of the planet's crust. The substance is also one of nature's most diverse. Its atoms aggregate in forms as common as quartz crystals and as exotic as coesite and stishovite, minerals formed by the intense pressures generated when extraterrestrial objects such as comets and asteroids strike Earth's surface (SN: 6/15/02, p. 378: http://www.sciencenews.org/articles/20020615/bob9.asp).

In all, there are at least seven naturally occurring crystalline forms of silica on Earth, says Kei Hirose of the Tokyo Institute of Technology.

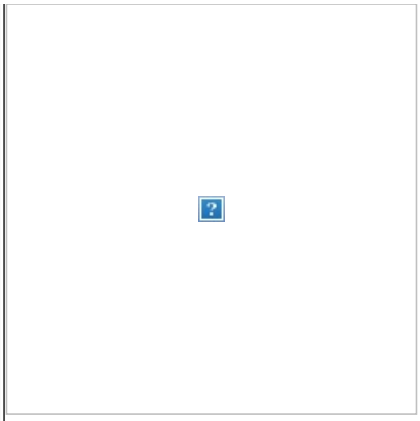
Now, scientists report yet another form. Hirose and his colleagues took a mixture of quartz crystals and silica glass and compressed it between two small diamonds to pressures approaching 3 million times the pressure exerted by the atmosphere at sea level. They also heated the sample with a laser to temperatures of up to 1,700°C. The diffraction pattern of X rays fired through the material provided information about the arrangements of atoms in the silica.

At low pressures, six oxygen atoms surround each silicon atom in a silica crystal. In their experiments, Hirose and his team noted that silica's atomic arrangement became more compact at temperatures above 1,525°C and pressures above 2.6 million atmospheres. This version of silica is at least 5 percent denser than any known low-pressure form. In the dense configuration—predicted years ago but never before synthesized—each silicon atom has eight neighboring oxygen atoms. The researchers describe their feat in the Aug. 5 Science.

The new research is "impressive," says Ho-kwang Mao of the Carnegie Institution of Washington (D.C.). Although many scientists have conducted tests at high pressures or high temperatures, "this could very well be the highest combination of pressure and temperature" ever reached in experiments on any mineral, he notes.

The newly produced type of silica probably doesn't exist on Earth. About 2,900 kilometers below Earth's surface, at the boundary between the outer core of molten iron and the mantle of overlying minerals, pressures measure only 1.3 million atmospheres. Most scientists speculate that below that core-mantle boundary, where pressures are even higher, there's no silica.

Hirose's group notes that its new form of silica might exist on large planets, such as Uranus, Neptune, or some of those discovered around distant suns. There, thick atmospheres and massive, rocky cores that likely include silica may exert the immense pressures that could make up the new mineral.



TIGHT SQUEEZE. In this depiction of a silicon dioxide crystal, white balls represent oxygen atoms while the blue octahedrons enclose silicon atoms. The red lines show results of the pressure-induced movement of atoms that has increased the number of oxygen neighbors for each silicon atom from six to eight.
Credit .Science

How to Facet Honey, Fire or Common Opal

In the June 2008 issue of "Jewelry Artist" an article on how to facet opal appeared and this is a condensation of the article, with some of my own observations/knowledge included.

The question was how to orient and cut common opal (and/or with fire) from the Juniper Ridge Opal Mine. The Juniper Ridge mine is a fee-dig site still operating in Oregon. I have seen samples of this orange to yellow opal, mostly clear but sometimes cloudy opal that Ed Lehman (Washington State Mineral Council Wagonmaster) has mined there. It cuts a nice stone and could be compared with the opal that comes from Mexico. Sometimes this opal is called 'honey' or 'jelly' opal. There is another opal mined in Oregon that also can be faceted--'jelly' opal from Opal Butte--which has also been operated as a fee-dig and owned by the West Coast Mining Co. This opal often has 'fire' or 'play of color' in it and is highly prized.

John Bailey is one of the partners of the Juniper Ridge Opal mine and a skilled faceter and jewelry designer. He gave the following advice. First, use common sense--let the shape of the rough determine the faceting pattern. You want to get the best yield possible from this opal (as well as any facet rough). If the opal has any play of color, orient your pattern so it is shown to good advantage. Many times you need to put the 'fire' down in the culet or else have it on the crown--again depending on the orientation of the stone. John states: "As for all faceted stones, the bigger the stone, the more faces the design should have, and the smaller the size, the fewer the faces" . He also recommends cutting the pavilion at 45 degree angles for most designs. For a rectangular piece of opal, John would cut the stone in a classic emerald design or a Ceylon-style oval (step-style pavilion and brilliant style crown). On a stone that is pale to begin with, if you cut it in a brilliant style (pavilion and crown) it will
'wash out' even more. The style of the cutting should be done to increase the saturation as much as possible by deepening the pavilion and using a step-cut style. Despite its clarity, rough that has a good color should be cut to optimize the color. John related that in valuing colored stones--the color is 60 percent of the value--so highly colored stones would command more attention.

Sometimes rough fire opal can "fisheye" and may have no sparkle after it has been cut. John's recommendation is whenever you are dealing with opal, you must determine how long it has cured. Has it been in water, or is it just out of the ground? Opal should be allowed to air cure for a minimum of six months to ensure stability with normal humidity levels and for the purchaser to look for potential fogging, cracking or crazing to occur. Opal is sensitive to changes in humidity, temperature and any sudden changes in either. It is important to guard against potential problems by storing your opal in a stable and dry atmosphere. (One of our members is familiar with Virgin Valley opal mining and we look forward to a future program/discussion with him.)

Dopping is another problem with opal because of its sensitivity to heat--normal wax dopping is not recommended. Opal is porous and can be affected by solvents. John recommends using a lower temp wax and both heating and cooling the stone slowly and carefully.

Samples of John Bailey's work are on his website: www.gemstoneartist.com, and learn more about the mine at www.juniperridgeopal.com

Ref: "Jewelry Artist", June 2008 pg. 14

from Crystal & Gem News, 09/08

Burns, Oregon is Aptly Named

by Jessie Camerer

The Field trip to Burns, Stinking Water and Warm Springs in July was great fun and yielded some nice specimens of petrified wood, agate and

obsidian. We camped under a grove of trees which had been frequented by the range cattle, also trying to beat the heat. So many “cow patties” were shoveled out of the way to make room for us to walk about. Walt also strung up a tarp on four poles and we set up tables and chairs underneath.

There were seven adults and three dogs. Every day we set out in a convoy, following Emmett Johnson, our leader. Large vistas of semi-desert opened up before us. The wild flowers had not quite finished blooming and the sage brush smelled intense. Such different terrain from where we live here in Washington. And it was HOT! The trees were few and far between but the dogs found every piece of shade there was and laid down in it while we roved over the dry ground seeking treasures.
It is not only the joy of discovery but the fun of sharing it with the other members of the group. We looked at it all when we got back to camp and must admit that we wondered why we had carried some of it back. We found Selenite which is very pretty, especially glittering in the sun, you just couldn’t resist collecting it. I overheard plans from some of the men to dispose of it secretly when the wives were not looking!!! But we foiled them as it all came home with us.

We played Tripoli one night. It's a card game usually played for money. In this instance we used poker chips and bow macaroni. The competition was fierce. One would have thought that millions were at stake. We were all disgusted when someone took the whole pot. But all was not lost as the macaroni got cooked later!!!!!

This is the beauty of belonging to this Club, having the opportunity to search for rocks, enjoying the company of friends and having many hilarious moments. And we care for each other. The last day we were there, a spot was found for me under a tree as I really was very hot. So I sat on a folding stool with my camera and water bottle, surrounded by dried cow dung and bleached bones. What more could a person want?

From Carny Hound, 08/08