

Place: Arden  
Community Club  
Hall Rd  
Arden, WA



Time 7:00 PM  
Third Tuesday  
April - November  
6:00 PM December -  
March & August

## The Panorama Prospector

September 2016

### Panorama Gem and Mineral Club

August 16, 2016, Minutes

by Anni Sebright

There was no meeting - - just good food, fellowship and tail-gating. Thanks again to Bill Allen and Luci Bristow. The cooking and serving were seamless.

Even though attendance was down from previous years, it was great to see all the future rockhounds enjoying their evening's treasures.

MARCH 9, 10 and 11th and not SEPTEMBER for this year's rock show (as reported in the last newsletter). Please be thinking about possible themes for this year's show, and bring your suggestions to the September 20th meeting.

Members with last names beginning with W, A and B are responsible for snacks and juice for the September meeting.



[Tailgate rock exchange after BBQ/Potluck]

Our condolences to Jan and Bruce Hurley and family at the passing of Jan's mom.

end

### Klondike Mt. Mysteries

by Joseph Barreca



[Sara Brown working the geode site]

*Once again I'll regale you with a story about a recent rock trip I took since (hint, hint) pictures and stories from other folks in the club are not forthcoming.*

For years myself and other members have been collecting geodes from the basalt range of mountains that stretches from Republic north into Canada and south to the Columbia River. Usually they are small and white, filled with quartz crystals. This last week I was invited to a site that is a virtual "motherlode" of these geodes on Klondike Mountain, the hill that the town of Republic is built on and the location of the Knob Hill Mine, whose tunnels reach below the town. By "motherlode" I mean a location where these geodes can still be found in their original rock matrix, not that they are especially plentiful or easy to acquire. Also the location is not exactly easy to get to, though you can make it in a two-wheel drive vehicle with decent clearance. This is by no means the only source of these geodes in Ferry County but highlights the mineral resources of Klondike



Mountain, which is also the location of the Stonerose fossil site.



[Geode still in the matrix rock with pen for scale]

My guide, Sara Brown, is in the cover picture digging through the dirt next to one of the outcrops of basalt. Earlier this year she found a geode there, somewhat bigger than an egg, that was packed solid with agate and crystals.



[Sara's solid agate/crystal geode]

So I started poking around to see what else could be found nearby. Most of the outcrops were covered in moss and lichens. So it was hard to see geodes in them. Along the base of the outcrops there was some dirt which occasionally would have a small geode in it. But digging through just this kind of dirt is where Sara found her big geode.

Nearby were also open slopes without much vegetation growing in them. This was the kind of area that had many loose geodes as discussed in the July edition of this newsletter under "Agate Fields". And indeed I did find a few similar pieces there.

Sara said that the really hard-core rockhounds would take hammers and chisels to the outcrop just below her in the first picture. So I thought I would give it a whack. Well, I did find some this way after quite a bit of work. This is where a very big sledge hammer would be good.



[Geodes exposed in the rock outcrop]

As you might expect, getting them out is a whole other problem. But you can extract them by carefully - well as "carefully" as you can - breaking away the basalt rock around them with a hammer. (Yes I did wear eye protection and it was a good idea.) I was hoping to find them in a looser kind of basalt that seemed to have many conglomerate rocks included in it along with some pockets that geodes might have popped out of. But no. They all seemed to be coming from the solid stuff.

Not being really keen on whacking solid rocks all day, I came up with another idea. Why not examine the rocks that had already broken off the outcrop and tumbled out into the field. This plan yielded immediate results. I quickly came up with another egg-size geode and a few smaller but still sizable ones. The larger one seems to have another kind of crystal, growing on top of the quartz. It looks like calcite and gets fizzy when exposed to acid. I'll bring it to the meeting and then to the rock shop for more examination. There are also some



green spots on it. Another very collectable rock found at this location is a green jasper. I only found a tiny piece of it that I wish I had held on to. Neither Sara nor I found any more of it on our trip.

All of this leads to a geological question, namely, "What the heck was going on here?" Okay not exactly scientific phrasing, but you have to wonder why silicon oxide (quartz,  $\text{SiO}_2$ ) would form within a hot mass of lava. Did it form before the rock was cool or in air pockets later? If so, why are there often rings of other material around the geodes? And where would calcite ( $\text{CaCO}_3$ ) come from to attach to the quartz?



[Ore found on Klondike Mountain]

This was just the first of many mysteries that arose from the outing. Perhaps a little more background is in order. Klondike Mountain was the center of maybe a hundred mining claims in the late 1800's. Several of those merged into the Knob Hill mine which kept producing Gold, Silver, Copper and several other minerals through the second World War when most gold mines were closed. By 1989 the Knob Hill mine had produced over 2 million ounces of gold. Only 5 other mines in the United States could make that claim. Much of the gold was in vent structures where hot mineral-bearing gasses left rich gold deposits condensed on the sides of the volcanic vents. Other epithermal-type deposits, characterized by wavy banded quartz usually ran about 1/2 oz. of gold per ton but in some pockets held 300 oz. per ton.

Our rock site was uphill and a couple of miles north from the main workings of the Knob Hill mine. It is owned by John Hancock Insurance and is designated forest land. Looking at our

handy-dandy GPS-enabled topo map, I saw that it was only a mile or so East of the Tom Thumb, one of the principle mines of the region. And the Tom Thumb sat near the formation of sedimentary rock that is the source of the world-class Eocene fossils found at the Stone Rose Fossil Center.

We decided to follow one of the crossroads from the geode site to the Tom Thumb to see if we could find some fossil digs along the way. At this point it did become a 4 wheel drive adventure. But the road was well travelled. Something more should be said about these GPS-enabled topo maps. They are available as a free download in PDF format from <http://ngmdb.usgs.gov/maps/topoview/>. My Samsung tablet has an internal GPS chip. Opening one of these PDF maps in an application called Avenza map, <http://www.avenza.com/pdf-maps> brings up a little blue dot on the map that shows you exactly where you are. Earlier I had used the application to mark a point on the map for the geode dig. (48.68601,-118.73908). The map showed where the two shafts of the Tom Thumb had been, but they were filled in long ago, though I did find a piece of wavy-banded quartzite near the lower one.

We didn't see any fossil digs on our route and decided to try a side road. It had been blocked with large rocks and also loads of mineralized mining waste with lots of quartz, iron, sulfur and some peacock copper, a piece of which is shown in the photo on the left.



[Fossil leaf from the mystery fossil site.]

We searched for another way to the area where Sara remembered a fossil dig site, but didn't find one before I had to leave for home. Sure

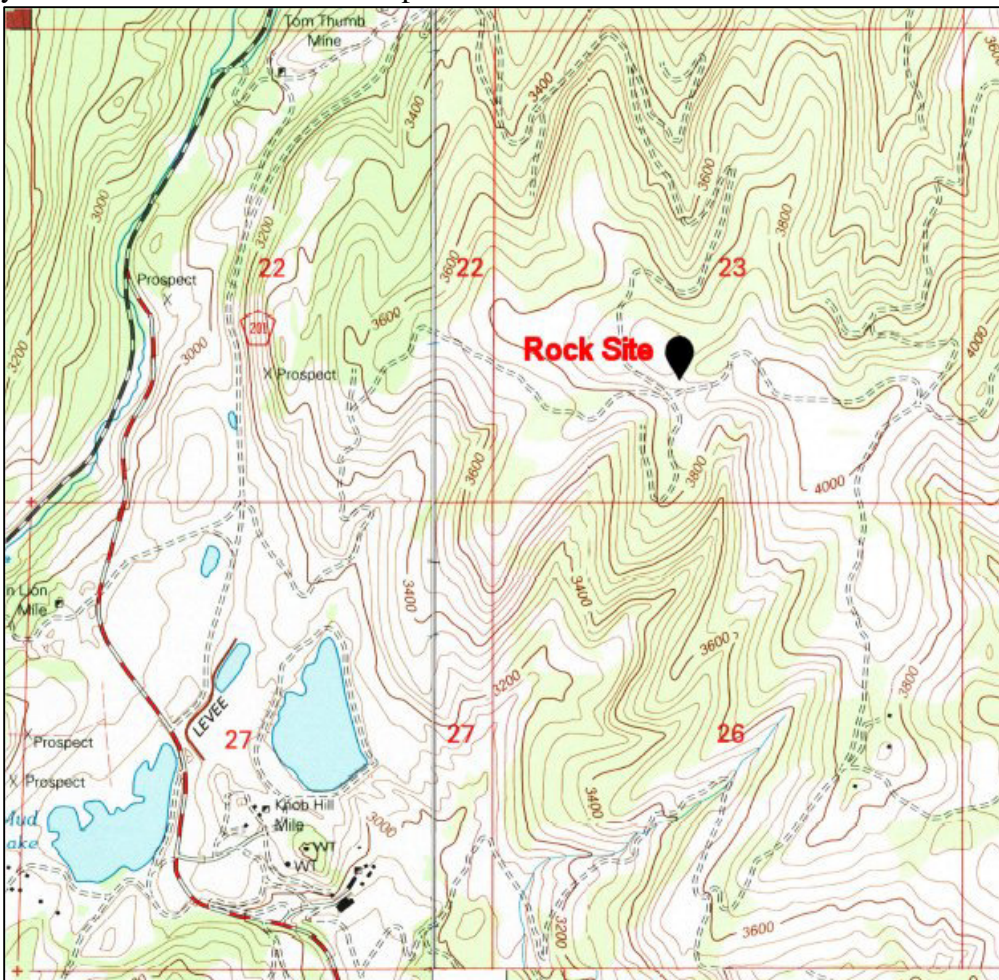


enough, as soon as I got home and checked my messages, there was one from Sara, who had found her way to the fossil site and sent home some pictures of her finds.



[Matching sides of a fossil leaf on Klondike Mt.]

So there you have it, geodes, gold, fossils and more all on Klondike Mt. Here is an image of the topo maps for the area. But I really encourage you to download them from TopoView.



## Road Closed to Crystal Site

Forest Service road 659 on the west end of Squaw Valley will be closed this fall for timber salvage.

Trees burned in last year's Tower Fire will be salvaged beginning the second week of September, according to a news release from the U.A. Forest Service. The road will be closed to the public to allow heavy trucks and heavy equipment to move in and out.

The road closures will block access to a popular quartz crystal collection site. The road should reopen sometime this winter.

## Johnie's Jabber

*Johnie Pitman*

The September meeting is when the bi-laws say the president will appoint a nominating committee to start the process of officers for next year. Also the scholarships have all been paid for this year.

It's not too early to start saving some funds for the November scholarship auction. The show theme will be decided at this next meeting.

## Refreshments

The refreshment list maintenance is done by Deborah Danielson. Letters for September are "A" and "W" but due to shrinking numbers of likely participants, it will also include "B". If you can bring something to eat to the next meeting please call Deborah Danielson. Her cell phone number is 509-207-0447. Her new home phone number is 509-960-1535. Her email address is [mickeesmom.dd@gmail.com](mailto:mickeesmom.dd@gmail.com) Please let her know what you plan to bring so there's not 8 kinds of cookies and no juice.



## Emerald Creek Garnets

*by Johnie Pitman*



[Johnie Pitman getting down and dirty]

After looking up the information on digging for garnets at Emerald Creek we, Ginger, myself and our granddaughter Chelsi, decided to go to the area on Wednesday, August 10 and dig on Friday to avoid the weekend crowd. I'm glad we did. There were still 50-60 people. Sherryl Sinn, Gene Fisher, and Sherryl's granddaughter Kaley met us in Potlatch, ID on Thursday and we camped at Laird Park campground which is on the Palouse River. It is a very nice campground and has a swimming hole in the river, the water was still cold so only the kids went in.



[Laird Park on the Palouse River]

It was the maiden voyage for Gene's new camper which is huge and has three slides, it's really nice. We knew that the garnet dig was on forest service road 447 and so was Laird Park. So it should be easy enough to find, just a few miles down the road 447. The road was a good gravel road at first then after a few intersections and miles it got very crooked and narrower and narrower down to one lane for the last 6-7 miles and we were

in a motor home and large pickup camper.

Fortunately we didn't meet anyone or someone would have had to back up a long way. Over an hour later and 17 miles from the campground we finally got to the parking lot of the garnet site, to our surprise there were 25 cars already there.

The dig itself was different than I was thinking it would be, as we were told the forest service had a pile of material where you could just go and fill your bucket. The pile was rough with waist deep holes and rocks of all sizes glued together with wet clay. Using a shovel could only happen after prying some loose and removing the large rocks then maybe you could get half of a shovel to put into the bucket if it wouldn't stick to the shovel. The next step was to screen the dirt through 1/4" screens to get rid of the little stuff that wouldn't have any garnets large enough to do anything with, well good luck screening wet clay!! Then finely go to the wash trough to wash the mud off and collect your garnets, this time the screens were finer about 1/8" the only problem was there were so many people there wasn't enough screens and some times no room, it was elbow to elbow. Once you have collected your garnets then you start all over again, until your back gives out or you have the limit. It's always the back. Everyone that tries very hard does find garnets, mostly small pieces, but they are the real star kind.



[ Sherryl Sinn and Kaley]

When we left the parking lot we continued on road 447 and got back to pavement in 6-7 miles and the road was much wider, it must have been the way everyone else had gotten there. We stayed at Laird park again Friday night then home on Saturday. It was a very enjoyable trip and camping for all of us. The eight year old girls worked hard and found as many garnets as anyone.

### Membership Dues:

**\$15.00 per household per year is due to the club Treasurer**

Johnie Pitman (address below) on the third Tuesday of November for regular members.

Webpage: <http://panoramagem.com/>

Contact: Bruce Hurley, President, 509-413-2768.

We, **The Panorama Gem and Mineral Club**, are a multi-faceted group of mineral-minded people. Our proud members include some real gems, a few fossils, and even some diamonds in the rough. A few have lost some of their marbles, but they know where to get more! A few need to polish their coordination because they are always tumbling! And some are miners who use the “silver pick” as their tool of choice! It should be crystal clear, that we all enjoy this unique conglomeration and above all else we strive to **HAVE FUN**. And we never throw stones (away).

### Northwest Rockhound Retreat

*Lamar Tilgner*

*NFMS Annual Meeting Minutes July 29, 2016*

There are a number of “repeats” to the retreat which is a tribute to the quality of instructors. They will help a novice and seasoned alike. The retreat is a process of learning and of sharing information. Fiftythree people are already under contract. A backup group is compiled. Those names go on a standby list. There are nine workshops (knapping has been added). They are looking into adding jewelry carving in the future. The Camp is from Labor Day, September 5-the

### Tailgateing

Here is another picture from the tailgate rock exchange at the August Potluck/meeting.



11th. There is a review session and show and tell at the end of the week. Attendees can move from class to class. The Federation puts new diamond wheels on equipment every year. The saws have been upgraded. The used wheels can be sold back to clubs and such. Nothing gets thrown away. At Midyear meeting, Lyle added that the Retreat is five days of seven hours a day working at the hobby. You don't have to cook, you build friendships, and there is sharing. He lamented that it is a terrible thing that some won't share what they know, but that is one of the wonderful things about the retreat. The week also includes a game: “Stump the Experts”. With 53 attendees and 16 instructors, there are multiple answers.

### Panorama Gem and Mineral Club: Organizational Chart

Officers:			
President:	Bruce Hurley	10617 W. Lakeside Lane, Nine Mile Falls, WA 99026	509-413-2768
Vice-President:	Bob Bristow	PO Box 1165; 2567 Mud Lake Rd. Chewelah WA 99109	509-935-4375
Secretary:	Anni Sebright	POB 293, Clayton, WA 99110	509-276-2693
Treasurer:	Johnie Pitman	701 B Williams Lake Rd, Colville, WA 99114	509-684-8887
Trustee 2:	Gene Fisher	295 Gold Creek Loop Rd, Colville, WA 99114	509-684-8546
Trustee 3:	Bill Allen	2633 Highline Rd, Chewelah, WA 99109	935-8779, 936-2446
Trustee 1:	Becky Dobbs	968 Phillpott Rd, Colville, WA 99114	509-684-6931
Committee Chairs			
Program Coordinator:	Bev Bockman	1750 N Havichur Loop, Post Falls, ID 83854	208-773-5384
Hospitality:	Debora Danielson	1365 Arthur Ct, Kettle Falls, WA 99141	509-960-1535
Club Shop:	Gene Fisher	295 Gold Creek Loop Rd, Colville, WA 99114	509-684-8546
Historian:	Carol Price	PO Box 77, Laurier, WA 99146	509-684-2857
Newsletter:	Joseph Barreca	2109 Hwy 25 South, Kettle Falls, WA 99141	509-738-6155
Show Chair	Bill Allen	2633 Highline Rd, Chewelah, WA 99109	935-8779, 936-2446