

Place: Arden
Community Club
Hall Rd
Arden, WA



Time: 7:00 PM
Third Tuesday
Each Month
(Jan.-Dec.)

The Panorama Prospector

June 2012

Minutes May 2012

By Ginger Pitman

The meeting started with 37 members present. Refreshments for next meeting will be provided by Bill, Luci and drinks by Becky. Thank You

Bob informed us of a lifetime rock collection for sale.

Coming events, include the North Idaho Gem and Mineral Club show at Coeur d'Alene, June 2-3, and the Northwest Federation Show at Kennewick, (May 18-20) Bruce will be leading a trip to the Metaline trilobite beds.

Sylvia gave our treasurer's report. We have enough for our 3 scholarships and the new donated monies for the 3 junior college/trade school. Thanks to the trustees who have picked the 5 winners. Johnie will present at Kettle Falls and Colville. Bill Allen will do Chewelah High School. Winners are:

Kettle Falls - Alexandra Anderson

JC/trade school - Erin Decker

Colville - Mariah Lentz

JC/trade school to Colyn Lindback

Chewelah - Colter Garcia

The club has been asked for a presentation on rocks at Rendezvous Days, but we have yet to decide what that would look like.

Novaks say the May 26 field trip to Riverside is a go for thulite and zebra rock.

The Pitman's will be going to help at the Coeur d'Alene show.

Bill/Sylvia will be talking to the owner of the mines outside of Chewelah for a trip or 2 in July/Aug.

Bob lead a discussion on field trips, now that the weather is getting better and the creeks are getting lower. If you have a favorite where you are going to collect, tell us when and you can lead a field trip. It doesn't have to be a weekend.

Continued on page 2

WARPED WONDERS

by Bruce Hurley



In 1912, local interests at Metaline Falls built a small Portland cement plant to support the many new lead and zinc mines then operating in northeastern Washington. Just east of town rises a mountain, soon known as Quarry Hill, which contains an abundant supply of limestone with the proper characteristics to make high-quality cement. Two years later, the Lehigh Portland Cement Company of New York purchased the operation, expanded it, and produced cement continuously for the next seventy-five years. By 1989, mining and construction in the area had declined to the point that local cement production was no longer economic. The Lehigh operation closed, and was eventually sold to the Lefarge Company of France, its current owner. At present, the plant and quarry remain on standby status.

While the old quarry no longer produces limestone for cement, the walls still occasionally ring with the sounds of mining the old-fashioned way, by hand, carried out by fossil collectors. Soon after excavations first began, workers began to discover fossils at several levels on Quarry Hill. With many active mines in the area, these fossils soon came to the attention of local geologists.

Minutes continued from page 1

June 21 – 24 is the Prineville, OR Rockhound Pow-Wow at the Crook Country Fairgrounds with daily field trips if anyone is headed to Oregon.

Remember to buy the raffle tickets; our door prize was won by Kathy Fritz.

The program was a video produced by Jeff Tetrick for Johnie which was made from some of Johnie's slabs using very close up photos which reveal some interesting and spectacular designs in the rock.

Remember if you want to join us doing a money tree for Daniel/Tina and the twins, we will have a place to put your envelopes at this meeting.

end

The fossils turned out to be predominantly those of trilobites, ancient marine arthropods related to the horseshoe crab, along with occasional brachiopods, bottom-feeding animals which resemble scallops, but are unrelated to them. Interestingly, many of these fossils are distorted as though somehow warped by nature, which indeed they were. Along with their relatively good preservation, this distortion has made these fossils popular items for collection for the last century.

The host rock at the quarry is a unit of thin-bedded limestone and shale, the lowermost of three members of the Metaline Formation. The formation also contains a massive upper limestone member overlying a bedded dolomite member, both of which host nearby lead and zinc deposits. The Metaline rocks are old, deposited in the middle Cambrian Period of the early Paleozoic

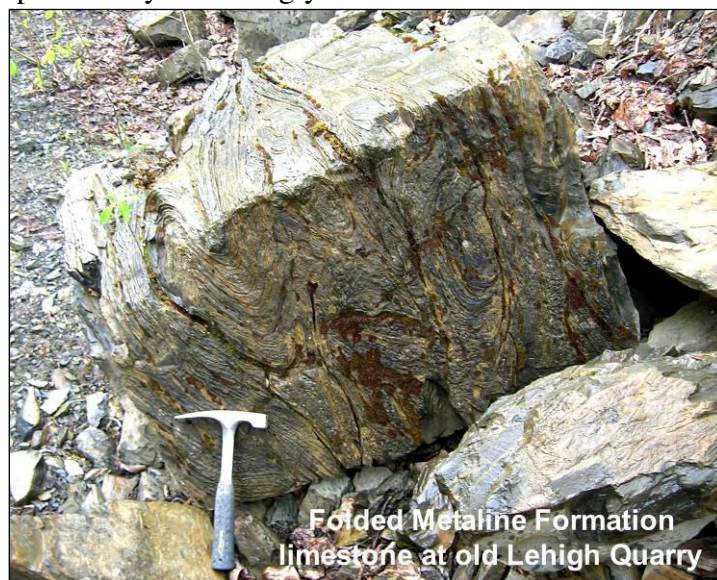


Era, about 520 million years ago. These sedimentary rocks were deposited on the ancient

sea floor along the western edge of what would eventually become the Northern Rocky Mountains.



During the time since the Metaline Formation rocks were deposited, several episodes of mountain-building have squeezed and uplifted them, locally warping and folding these ancient sediments. Within the formation, only the lower limestone-and-shale member hosts fossils, because these rocks were deposited in a fossil-rich environment and their fine-grain size and thin beds preserved the detail of the organism entombed within them. However, the fine-grained, organic-rich matrix and thin bedding also made these rocks the structurally weakest members of the formation. As a result, compression has warped these beds, and in some places they are strongly folded.



Depending upon the location and orientation of a fossil in a bed which is folded, the fossil may be stretched, compressed, or not deformed. The more a rock, especially shale or shaly limestone, is compressed, the more the

fabric of the rock itself becomes changed. If the rock begins to develop a cleavage, like slate, the original bedding is destroyed, and the fossil along with it. The fossils of the Meteline formation are unique in that the rocks in which they are found are both deformed and noticeably changed by heat and pressure (metamorphosed). In some places on Quarry Hill, the shale has actually been changed to the lowest grade metamorphic rock, argillite, yet still contains identifiable fossils! The warping of these fossils preserves a record of how much compressional stress their host rock has undergone through time, using measurements of the shapes of deformed versus undeformed fossils of the same type. Structural geology textbooks worldwide have long shown illustrations of Meteline Formation fossils as examples of deformed fossils, and their use in estimating compressional stresses during rock deformation.



The preservation of the fossils in Quarry Hill is truly fortunate, as the intensity of metamorphism increases greatly just north of Meteline Falls. The same rocks, known as the Nelway Formation fifteen miles north in Canada, have produced only parts of a pair of poorly-preserved trilobites. Along Trans-Canada Highway 3, outcrops of these rocks are now the metamorphic rock argillite, locally containing quarter-inch pyrite crystals and only occasional dark smudges where trilobites fossils were likely once present.

Thanks to the folks at Lefarge and their enlightened attitude in permitting access to their quarry, a number of new trilobite species have been discovered in recent years. Hopefully, one of the most famous fossil localities in the American West will continue to make contributions to our knowledge of the ancient past, for a long time to come.

Johnie's Jabber

By Johnie Pitman

The weather looks like it is going to be good for rockhounding in the near future. So put on your club hats and get out the shovels and maps, I'm ready to go dig up something. First Scott has checked out Jim Creek and will take the club there on June 23rd or 24th, we'll decide at the meeting. This location has pyrite and galena to collect.

Next, Bruce Hurley has permission to take the club to the trilobite dig at Meteline Falls, the date is yet to be determined.

Also Steve Livingstone has invited the club to his place "The Rock Ranch" for a day of free digging. He also has a very nice museum that is well worth the trip just to see it.

Ginger and I plan on going to Crystal Park which is south of Butte, Montana sometime in July and we hope some others can go also.

This month's program is all about trilobites presented by Bruce Hurley, don't miss it because it will be very interesting even if you're not into fossils.

The program for July will be "show and tell", so plan on bringing something to tell us about or show us how you do something, or tell us a believable story that happened while rockhounding. We want to hear what you like about rocks, fossils and minerals or just getting out to appreciate the wonders of nature. Let's make it fun and informative.

The scholarship winners have been



informed, check the meeting minutes for a list of the winners.

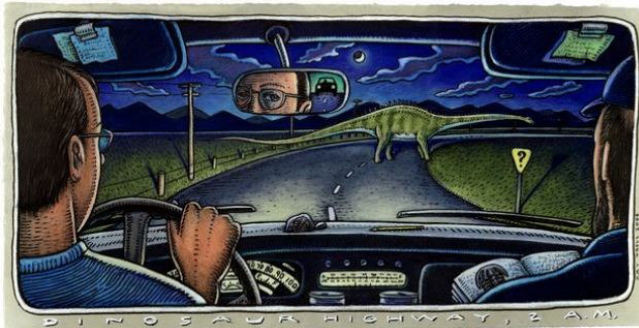
Kinross Gold Tours

(Stonerose News)



Kinross Gold Corporation will be giving Gold Pour Tours throughout the summer. These tours will be available periodically on Mondays. If you would like to participate in one of these tours, please contact Stonerose with your full name, date of birth, phone number, boot size, and the number of people in your party. This information must be provided at least 10 days prior to the scheduled tour date. All participants must be at least 12 years of age. This is a one of a kind Ferry County hidden treasure that you and your family can experience during your visit to Republic. For more information call 509.775.2295 or contact us by email at srfossils@rcabletv.com.

Crusin' the Washington Fossil Freeway



This summer Stonerose is hosting "Cruisin' the Washington Fossil Freeway" exhibit on loan from the Burke Museum in Seattle, WA. It will be open for viewing daily until July 8th. This exhibit depicts fossils from Washington on wonderful maps made by artist Ray Troll with information provided by Kirk Johnson from the Denver Museum of Natural History. Stonerose is excited to be the host of this exhibit. If you are on your way to distant places, be sure to add a stop at Stonerose to your itinerary. Don't forget to bring your tools along so you can be the first to discover the undiscovered!

'Cruisin' the Washington Fossil Freeway" exhibit sponsors are greatly appreciated! ACI Northwest, Pacific Mobile, Kinross Gold Corporation, Nate's Electric, Ferry County Commissioners, City of Republic, and Ferry County PUD

More About Crystal Park



Crystal Park is located in the Pioneer Mountains at an elevation of 7,700 feet, approximately 70 miles by road from Butte, Montana. The site is under claim to the Butte Mineral and Gem Club and is jointly maintained and supervised by the club and the Beaverhead National Forest. Because it yields exceptionally well formed quartz and amethyst scepter crystals, this site has been a favorite with amateur collectors for many years. Shown above are two scepter crystals: one is amethyst, the other shows a fine pattern of smoky color banding resulting in a scepter with "phantoms." This site is strictly reserved for amateurs; the length of stays are limited, and crystals can be collected using only hand tools. The ridge that has produced the best specimens has been heavily dug and now resembles a crater-scarred battlefield. Although commercial operations are forbidden, amateurs can sometimes be induced to part with a few of their prized specimens (The "golden pick" is difficult to resist). The ridge producing the crystals overlooks a beautiful alpine valley that is blanketed with wildflowers in the spring and early summer. Because this crystal site is relatively small, and collecting is strictly controlled, cut gems from this lovely light amethyst are rarely seen on the market. For further information on

Crystal Park, read "Crystal Park," by Earl Spendlove (*Rock & Gem*; March, 1993:8-16).



Crystal Park is open for day use only and has a fee per car. Facilities include 3 picnic sites with tables and grills, information signs, toilets, and a paved trail with benches and an overlook. The facilities are designed to be universally accessible.

Quartz crystals are scattered liberally through the decomposed granite of the unique 220-acre site that's been reserved by the Forest Service for the popular hobby of rockhounding. Quartz crystals are hexagonal (six-sided) prisms, with a pointed "face" at each end. The crystals found at Crystal Park can be clear, cloudy, white, gray or purple. They can be smaller than your little finger or up to several inches in diameter. Gray, purple and other colors are caused by minerals within the quartz. Gray crystals are known as "smoky" and the highly prized purple ones are called amethyst. Single crystals are most



common at Crystal Park. Most of the crystals have little value other than as collector's items. Rules established for Crystal Park include a ban on tunneling. The rules are listed on signs and in brochures available at the site. Other rules include use of hand tools only, and a five-day-per-person season limit on digging.

More Stuff I Didn't Write

The person who never makes mistakes loses a great many chances to learn something.

Old age is when you don't care where your spouse goes, as long as you don't have to go along.

One day's happiness makes a person forget his misfortune; and one day's misfortune makes him forget his past happiness.

Two Things worry most people these days; one, that things may never get back to normal; and the other, that they already have.



Fairy tales for grown-ups: Campaign speeches.

From a National Park Guide:

A thought for the trail – the candy bar you take onto a field trip should provide at least the energy needed for bringing the wrapper out with you.

DO YOU KNOW where minerals go when they die? Into paint thinner! It is clearly stated on the can that paint thinner contains MINERAL SPIRITS!

Life is just one fool thing after another,
Love is just two fool things after each other.

(Editor's Note: Through 7 years of writing this newsletter I have mostly managed to avoid jokes and clip art, but this issue is already late and sometimes something is better than nothing.)