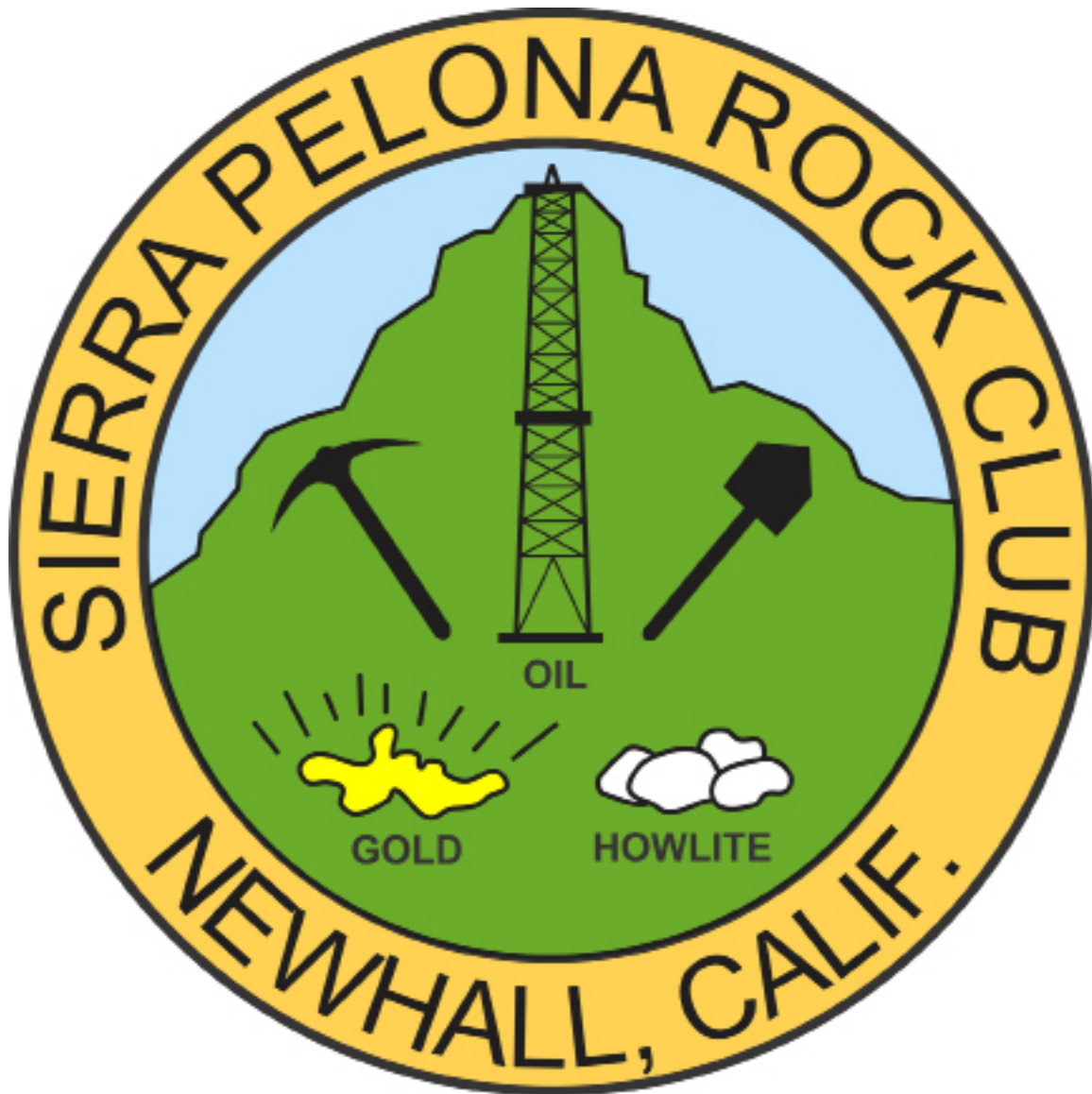


The Sierra Pelona nagram



November 2022

... Member of the California Federation of Mineralogical Society Inc. ...

The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.

President's Message

Hi Everyone

Well, the holidays are roaring in, like it or not. For me and Heidi, it is our busiest time of year what with our various interests and clubs. Lots of holiday work and parties, not counting our own family events. I know we are not alone...deep breaths!

One of the bigger events here at the SPRC is elections. We absolutely need a new treasurer as Shana is bowing out after a few years of excellent work for us. All our positions are open, and the current board has been in effect for a few years. It really is time for some new blood, although no one is complaining. New ideas and actions never hurt any club; it helps members from becoming complacent. So, think about it. It isn't a hard thing to do. Right now, board meetings are held by Zoom. Heidi keeps that account up and running and paid for.

Speaking of meetings, I know this is getting old and we are working hard to get it done, but we are still working on getting that room at COC.

We had a very successful, albeit exhausting, two weekends working and promoting our club booth at Gilchrist Farms in October. We have been unable to fundraise since the beginning of the Pandemic, yet our expenses never ended, so this was a much-needed boost to our bottom line. Thanks to Julie Tinoco, Trina and Omid Aeen, Ron Rackliffe, who also brought some beautiful amethyst tumble, Ruth Hidalgo, Natasha Illa, Greg Mazourek, Tina White and Bryan, and Don and Cheryl Cogan for their invaluable help in working the booth and helping pack up at the end. And a huge Thank-You to Ron Lawrence who donated several containers of absolutely gorgeous tumbled rock.

We'll also announce the location of our Holiday Party once we know exactly where it will be held. Stay tuned.



Gilchrist Farms Weekend Players



Spin that Wheel!



Proud Purchase



Heidi and Julie



Goats! Lotsa Goats!



Our first jackpot winner.

**Sierra Pelona Rock Club
General Meeting, via Zoom
October 18, 2022**

The meeting was called to order at 7:05pm. Seven people were in attendance, including guest Pavlina. Welcome Pavlina.

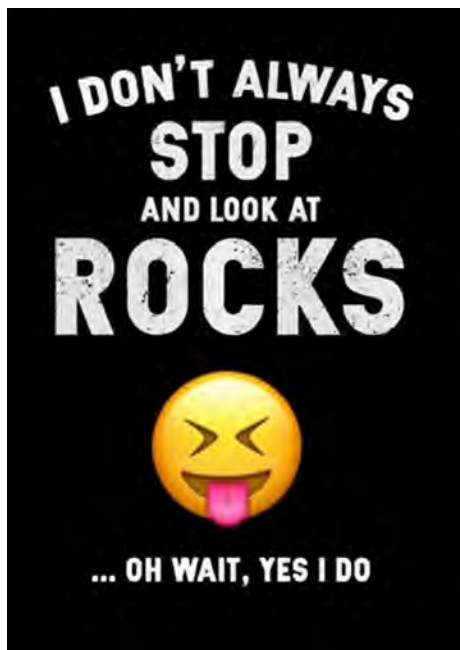
We still don't have access to a meeting room at College of the Canyons. Hopefully the insurance will be in effect and other required paperwork will be completed by the November meeting.

We talked about the upcoming (October 22, 23 and 29) fund-raiser at Gilchrist Farms for the club. We have enough coverage, but it's always nice for others to show up and give a hand. This will be our first fund-raiser (besides club activities within meetings) since the Pandemic shut everything down. Dianne Wohlleben is donating some horn coral fossils to be sold.

Julie spoke about the October field trip. She said it was a nice little group of people, some members of the Antelope Valley club joined her. They collected thulite near the Lavic Siding area.

Tina White was unable to attend as she was stuck at school, so there was no program. We all chatted, showed rocks and other items and concluded the meeting at 8pm.

Respectfully submitted,
Heidi Webber for Tina White



November
Shana Brunes-Ruiz
Frank Hummelbaugh
Jack Jenkins

December
Dianne Hellrigel
Mark Scott

Officers:

President – Bill Webber
Vice-President – Julie Tinoco
Secretary: Tina White
Treasurer –Shana Brunes-Ruiz
Federation Director (CFMS/AFMS) --Don Cogan

Chairpersons:

Claim--Linda Jenkins
Donation Rock Table--Dianne Wholleben
Equipment--Bill Webber
Field Trips – Julie Tinoco
Historian -Open
Hospitality – Ron Rackliffe
Membership – Heidi Webber
Website-- Larry Holt
Pelonagram Publisher, Editor – Heidi Webber
Programs –Tina White
Publicity –Open
Sunshine--Linda Jenkins

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at: Currently via Zoom

Contact the Club or the Sierra Pelonagram Editor at:
Sierra Pelona Rock Club
P.O. Box 221256
Newhall, Ca. 91322
Or e-mail: hwebber50@gmail.com
Visit the SPRC website www.sierrapelona.com

**SPRC Board Meeting
November 1, 2022**

Attendees:

- Heidi W.
- Bill W.
- Julie T.
- Don C.
- Tina W.

Meeting opened at 7:02 p.m.

Gilchrest Farms Events

- Bill thanked all those who helped out at Gilchrest Farms these past 2 weekends and shared what we earned.

Issues with Approval to Use Meeting Room at COC

Problems (communication and attitude) with our current insurance company have us still lacking approval from COC. Don C. will send Heidi the information on Mercer Insurance, used by the Astronomy Club without issue.

CFMS Business Meeting

Don will not be able to attend this meeting, to be held November 12th in Visalia. If anyone else would like to attend as the SPRC representative, please let Don or the Webbers know.

November Field Trip

Julie has sent out an email announcing the November 12th trip to the North Edwards area to look for Bloodstone, Jasper, and Agate. As of tonight, she's not heard from anyone that they will be going.

Website Emails

Heidi recently learned that she's not been receiving emails sent through the Club's website. She spoke with Larry, and they determined that it was an issue with forwarding between services, and it has been resolved. Heidi will soon be bombarded with emails from people interested in joining the Club!

December Club Activity

Although we don't have field trips in December, Julie has been advocating for a rock-related activity. Tonight, it was decided that those who are interested will go to Montrose on the 12/17 to visit the shop owned by Club members Janelle & DJ: The Stone Femme Studio. Those interested may then lunch together in one of Montrose's many interesting restaurants.

Topic for November Meeting Presentation

As we will be meeting after the month's field trip, Tina suggested that she put together a talk on the history of lapidary, with focus on the differences in terminology between various lapidarists, geologists, and mineralogists. Julie will also forward information on any great finds on the previous weekend's field trip.

Elections

Bill reminded us that elections for the Board will take place at our December gathering (12/10, presumably/hopefully at his group's clubhouse). We definitely need a new Treasurer, and other positions are open as well. Heidi pointed out that we could use some new blood/new ideas, so all are encouraged to consider serving.

Miscellany

Various topics, including the incoming storm and some of our more enjoyable customers at Gilchrest were discussed before the...

Meeting Adjourned at 7:35 p.m.



Rare Mystery Diamonds Came from Outer Space, Scientists Report

Diamonds, gemstones, Researches 10:08 PM

Scientists have debated its existence. Tiny traces provided clues. Now, researchers have confirmed the existence of a celestial diamond after finding it on Earth's surface. The stone, called lonsdaleite, has a hardness and strength that exceeds that of a regular diamond. The rare mineral arrived here by way of a meteorite, new research has suggested.

Strange diamonds from an ancient dwarf planet in our solar system may have formed shortly after the dwarf planet collided with a large asteroid about 4.5 billion years ago, according to scientists.

The research team says they have confirmed the existence of lonsdaleite, a rare hexagonal form of diamond, in



ureilite meteorites from the mantle of the dwarf planet.

Lonsdaleite is named after the famous British pioneering female crystallographer Dame Kathleen Lonsdale, who was the first woman elected as a Fellow to the Royal Society.

The team – with scientists from Monash University, RMIT University, CSIRO, the Australian Synchrotron and Plymouth University – found evidence of how lonsdaleite formed in ureilite meteorites and published their findings in the Proceedings of the National Academy of Sciences (PNAS). The study was led by geologist Professor Andy Tomkins from Monash University.

One of the senior researchers involved, RMIT Professor Dougal McCulloch, said the team predicted the hexagonal structure of lonsdaleite's atoms made it potentially harder than regular diamonds, which had a cubic structure.

"This study proves categorically that lonsdaleite exists in nature," said McCulloch, Director of the RMIT Microscopy and Microanalysis Facility.

"We have also discovered the largest lonsdaleite crystals known to date that are up to a micron in size – much, much thinner than a human hair."

The team says the unusual structure of lonsdaleite could help inform new manufacturing techniques for ultra-hard materials in mining applications.

What's the origin of these mysterious diamonds?

McCulloch and his RMIT team, PhD scholar Alan Salek and Dr Matthew Field, used advanced electron microscopy techniques to capture solid and intact slices from the meteorites to create snapshots of how lonsdaleite and regular diamonds formed.

"There's strong evidence that there's a newly discovered formation process for the lonsdaleite and regular diamond, which is like a supercritical chemical vapor deposition process that has taken place in these space rocks, probably in the dwarf planet shortly after a catastrophic collision," McCulloch said.

"Chemical vapor deposition is one of the ways that people make diamonds in the lab, essentially by growing them in a specialized chamber."

Tomkins said the team proposed that lonsdaleite in the meteorites formed from a supercritical fluid at high temperature and moderate pressures, almost perfectly preserving the shape and textures of the pre-existing graphite.

"Later, lonsdaleite was partially replaced by diamond as the environment cooled and the pressure decreased," said Tomkins, an ARC Future Fellow at Monash University's School of Earth, Atmosphere and Environment.

"Nature has thus provided us with a process to try and replicate in industry. We think that lonsdaleite could be used to make tiny, ultra-hard machine parts if we can develop an industrial process that promotes replacement of pre-shaped graphite parts by lonsdaleite."

What does it mean for us?

Now that scientists know about this mineral, the discovery raises the question of whether they can replicate it. Tools such as saw blades, drill bits and mining sites need to be durably hard and wear resistant, so a ready supply of lonsdaleite could make them perform even better, Salek said. And now with a credible scientific theory as to how these larger deposits formed, a rough blueprint exists to make lonsdaleite in a lab.

From this discovery, we can also learn more about the interactions of the universe, said Phil Sutton, a senior lecturer in astrophysics at the University of Lincoln in the United Kingdom. Sutton was not involved in the research.

In uncovering the story of where we come from and how we evolved, he added, it's important to know that materials were exchanged between environments -- even across solar systems.

The above story is based on materials provided by RMIT University.

Source: Geology.com