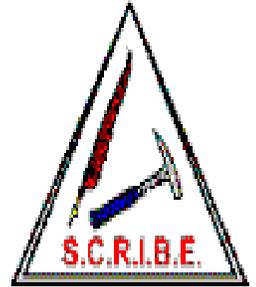




# MICRONEWS

## CANADIAN MICRO MINERAL ASSOCIATION INC

Member of the  
Central Canadian Federation of Mineralogical Societies



### President

Frank Ruehlicke  
660 Heathcliffe Place  
Waterloo, ON  
N2T 2P3  
519-880-2716  
[ruehlicke@rogers.com](mailto:ruehlicke@rogers.com)

### Vice President

Quintin Wight  
525 Fielding Dr.  
Ottawa, ON  
K1V 7G7  
613-526-4868  
[qwight@sympatico.ca](mailto:qwight@sympatico.ca)

### Treasurer

#### Memberships/Renewals

Jim Glen  
76 Flannery Ln  
Thorold, On  
L2V 4V8  
905-227-7200  
[jrglen@sympatico.ca](mailto:jrglen@sympatico.ca)

### Secretary

Neil Densen  
130 7th St  
Etobicoke, ON  
M8V 3B4  
416-259-5929  
[bettyneil@sympatico.ca](mailto:bettyneil@sympatico.ca)

### Editor

Randy Ernst  
2 Ferbane Place  
North York, ON  
M2J 1Y8  
416-494-4276  
[renst1004@rogers.com](mailto:renst1004@rogers.com)

### Directors

Jim Haase  
Hanne Vestergaard  
Al Alward

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Website — <http://canadianmicrominerals.ca/>

E-mail — [ruehlicke@rogers.com](mailto:ruehlicke@rogers.com)

### From the President

As you likely know, we hold our annual business meeting as part of our May symposium. After serving on the executive for 18 years, Bill Lechner has decided to step down. As I take over from Bill as President, I'd like to thank him for his contributions and leadership of the club. I'd also like to thank Percy Hornblow who is stepping down from his role as Director. Percy is one of those guys who is always willing to take on responsibility and then deliver on it. Thanks to Jim Haase who is replacing Percy on the executive. Big shoes to fill but I know Jim will do a great job. And last, but not least, I'd like to welcome Jim Glen to the role of Treasurer. Jim is a long time CMMA member and a fixture at both the Spring Symposium and the November workshop and I know I will draw on his experience going forward. So thanks again to Bill and Percy and please welcome Jim and Jim. Here is your club executive as voted by the club members:

President:	Frank Ruehlicke
Vice President:	Quintin Wight
Treasurer/Memberships:	Jim Glen
Editor:	Randy Ernst
Secretary:	Neil Densen
Directors:	Hanne Vestergaard
	Jim Haase
	Al Alward

## **50<sup>th</sup> Annual Symposium a Smashing Success!**

Wow! 3 days of microminerals, fellowship, excellent presentations, tons of giveaway material, a busy sales room plus 2 onsite dealers, two auctions, a great banquet and beautiful weather to boot! That's what I call a Symposium! Thanks and congratulations to Bill Lechner for organizing a fantastic weekend for us.

### Celebration:

Our 50<sup>th</sup> Annual Symposium was reason to celebrate. Attendees received a gift from the club of a commemorative lapel pin, a taperssuasiaite micromount prepared and donated by Bill, a pretty micromount prepared and donated by Phil Evannoff and a Thunder Bay Amethyst thumbnail prepared and donated by Al Alward. Thanks go to Bill, Phil and Al for their thoughtfulness. Bill also put together a slideshow entitled "Who are These People" that he presented Friday evening. This was a fun walk thru memory lane as he showed a series of photos from past Symposia and asked attendees to guess who was who. It was a nice way to reminisce and remember past members as well as turning back the clock on many current members. And what would a celebration be without cake – a beautiful chocolate cake supplied by Bill.

### Recap:

The Symposium began Friday with an informal gathering. Those interested in sharing photomicrography tips and techniques gathered in one lab where Bill gave a presentation on how he produces high quality photos using stacking software. A representative of Opti-Tech was on hand to give us a demonstration of a new Leica microscope with an integrated camera and software that lets you view live images from under the scope onto your computer screen. The integrated software can be used to capture images for subsequent stacking and has features that let you precisely measure the field of view or crystal length, etc. Those not interested in these informal sessions and discussions could meet in the other lab and work on their microminerals or socialize. In the evening, the formal program began with our traditional Wine and Cheese party. Thanks to Doug and George Rambo for sending sausage and cheese, and thanks to Al Alward for putting together a delightful selection of wines and snacks. Short presentations from a number of members including Pete Richards, Steve Stuart, Don Smoley and myself.

On Saturday, in addition to providing time for microscope work, we had the silent auction, a seemingly endless supply of giveaway material, a busy sales room managed by Karen Lechner (thanks!!) and an afternoon presentation by John Jaszczak on "Wonderful Wurtzite". I certainly gained a new appreciation for this species.

In addition to a wonderful meal, the Saturday evening banquet featured fellowship, the live auction with Tony Steede as auctioneer and a feature presentation by John Jaszczak on "Unexpected Treasures: Micromineral Graphite from Ontario, New York and New Jersey". Afterwards it was back to the Fireside Room to continue with Wine and Cheese and more socializing. Bob Rothenberg shared a video presentation of a special exhibit at the Freiberg Technical University featuring colorful insects (such as butterflies and moths) paired with minerals having matching colors and patterns. For example, an azure-blue butterfly was paired with a specimen of azurite. It was a fascinating exhibit.

Sunday was a continuation of Saturday's activities, with more microscope work, more giveaway material, more visits to the sales room and to our onsite dealers (Simkev and Tim Jokela). Our planned speaker for Sunday, Steve Chamberlain, was unable to attend and John Jaszczak graciously agreed to give a 3<sup>rd</sup> presentation. This time on the Miracle of Merlani, highlighting the

gemmy diopside, graphite and other minerals from this area in Tanzania. For more information, see the current issue of Rocks and Minerals which includes an article on Merlani co-authored by John. After lunch packup began in earnest and then too soon it seemed it was time for goodbyes as folks began their return trip home.

Thanks:

I'd like to thank all who helped put this conference together: Al Alward (wine & cheese), Derek Wickenden (coffee service), Percy Hornblow (auctions), Karen Lechner (sales room), Hanne Vesteregaard (door prizes), Tony Steede (auctioneer), Jim Glen (spiffy name tags) and Quintin Wight (speakers). And thanks again to Bill Lechner for a stellar job organizing the Symposium – the bar has certainly been set high!

Lastly, thanks to all of you who attended, who brought material for the giveaway tables, who donated materials to the auctions and who shared news, slides, and their knowledge with the rest of us. I think what makes the Symposium such a great event is the sum of all these contributions, big and small from so many of you. I look forward to continuing to share in your enthusiasm and interest as we embark on our next 50 years.







Please join us  
May 2-4, 2014  
51<sup>st</sup> Annual Symposium  
Canadian Micro Mineral Association  
Brock University, St. Catharines, Ontario

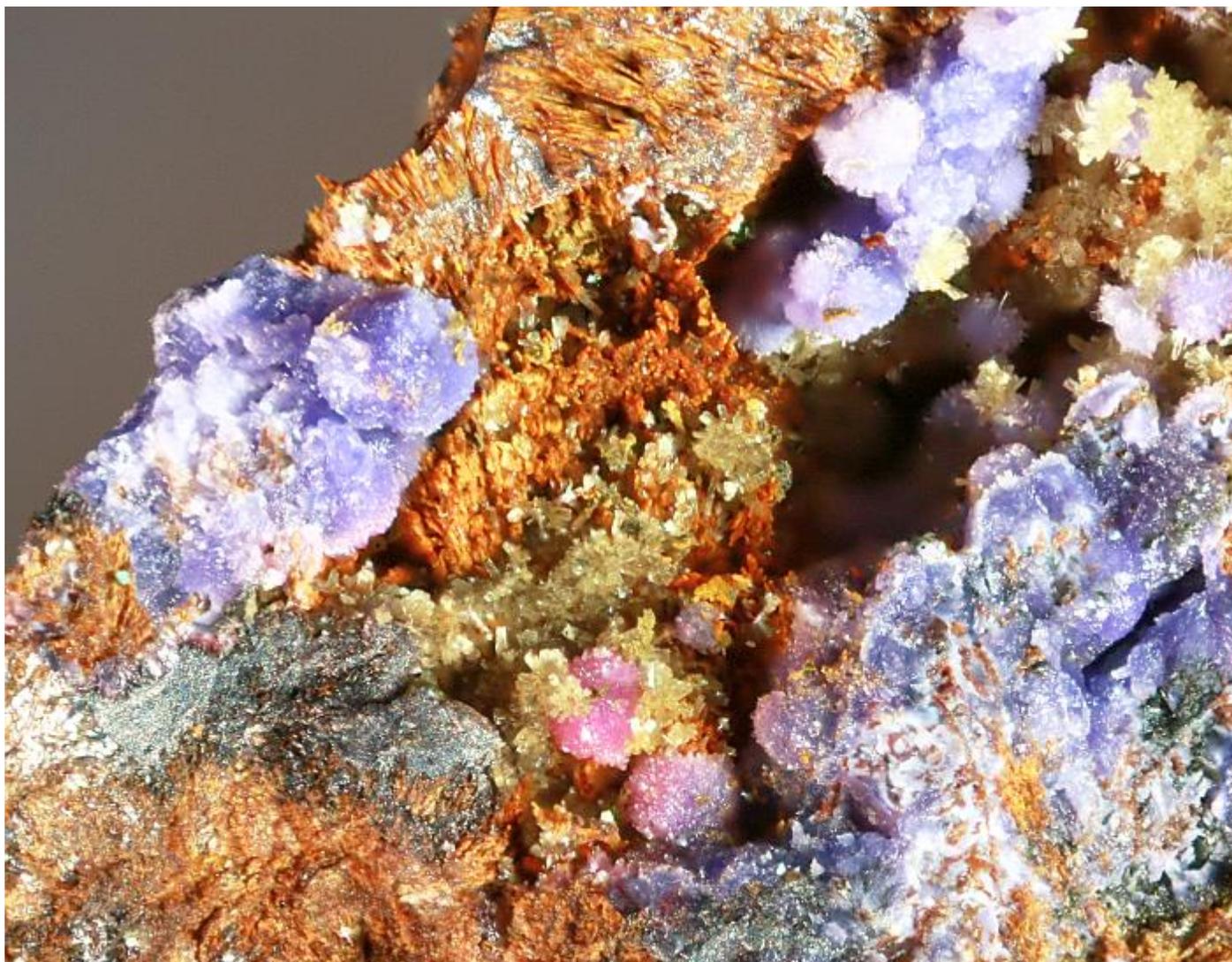
*Varenes Collecting – from Hanne Vestergaard*

Reminder for the Varenes Quarry., Sunday May 26th. 2013. time 900 am. People who want to enter the quarry have to be paid up members of the CMMA and show their membership card to the person there that collects the names or you do not enter. Long way to go to get turned back

## Membership Renewal

Not too early. Due NOW. Form at the bottom of this newsletter.

## Pictures from Dr. Henry Barwood



Interesting little pocket from the Williams pegmatite near Rockford, Coosa County, AL. Back in the 1960's they encountered some large pods of altered triphyllite with quite a few phosphate minerals in them. This little 1mm cavity contains purple and pink phosphsiderite, yellow stewartite, dark green lipscombite, red bermanite and altered brown rockbridgeite. Not the best image, but colorful. 40mm B&L objective and stacked with CZ



Not colorful, but extremely unusual group of benitoite from the Diamond Jo Quarry. These are intensely fluorescent and for a long time we identified them as fluorescent "barite". This is the only group of the colorless euhedral crystals I've found. Embedded anhedral blue crystals, and pink crystals in wollastonite are rare but I have several examples of each of them. Tiny benitoite after eudialite, and euhedral crystals on feldspar in quartz xenoliths, shows up in both Diamond Jo and Jones Mill material. Imaged with a 40mm B&L objective and stacked with CZ.



In the 1970's I directed a lot of people to the old Indian Mountain location north of Bluffton. One of them got totally lost and simply collected along the side of the road (what we would today call the fault line area). He found a boulder that had aluminum strengite, and some tiny white crystals that were an unknown. He sent some to me at Virginia Tech and i analyzed them. The turned out to be gorceixite. Not just any gorceixite, but 98% gorceixite molecule, which is rare in the crandallite group. He couldn't remember exactly WHERE he collected them and to this day no other specimens have turned up.

Tiny scalenohedrons of gorceixite on Fe stained quartz. 23mm objective. FOV about .75 X 1mm:



Here is an impossible-to-photograph aegirine from the Jones Mill Quarry. This was in a xenolith with narsarsukite. No matter how I tried to image the base of this, it would not respond to stacking. Fascinating bicolor prisms. FOV is about 1 X 1mm.



OK, one last aegirine. Same specimen, different crystal. After six tries with the other group, I'm following my father's advice: "If at first you don't succeed, Quit!" Color zoned crystal that goes from orange to green (several shades to almost colorless on the tip. Crystal is about 1 mm long. Jones Mill Quarry xenolith. Collected 2012

## **Burbankite, one last time – Axel Emmerman**

Two problems emerge when you're photographing transparent crystals. First of all: the light bounces around inside the crystal because any mineral is optically denser than air. You could eliminate the problem by photographing the crystal while immersed in a liquid that is optically denser than the mineral.

The result is that you see the crystal ribs and other artifacts, such as reflections, multiplied. The "gravity" phenomenon is determined by only a few factors: optical density, clarity, number of faces and angle of incident light. Size of the crystal is not a factor.

A second effect is caused by birefringence. Cubic minerals (regular system) don't suffer from it but they can still show inner reflection. Any other crystal system is optically active. It will display birefringence, the strongest perpendicular to the optical axes. If you photograph a mineral that belongs to the regular system with the line of view parallel to the c-axis, you won't see any lines double. If you rotate the specimen, so that you look onto an optical axis under a 90° angle, you'll notice that some of the edges of the faces look unsharp or even double.

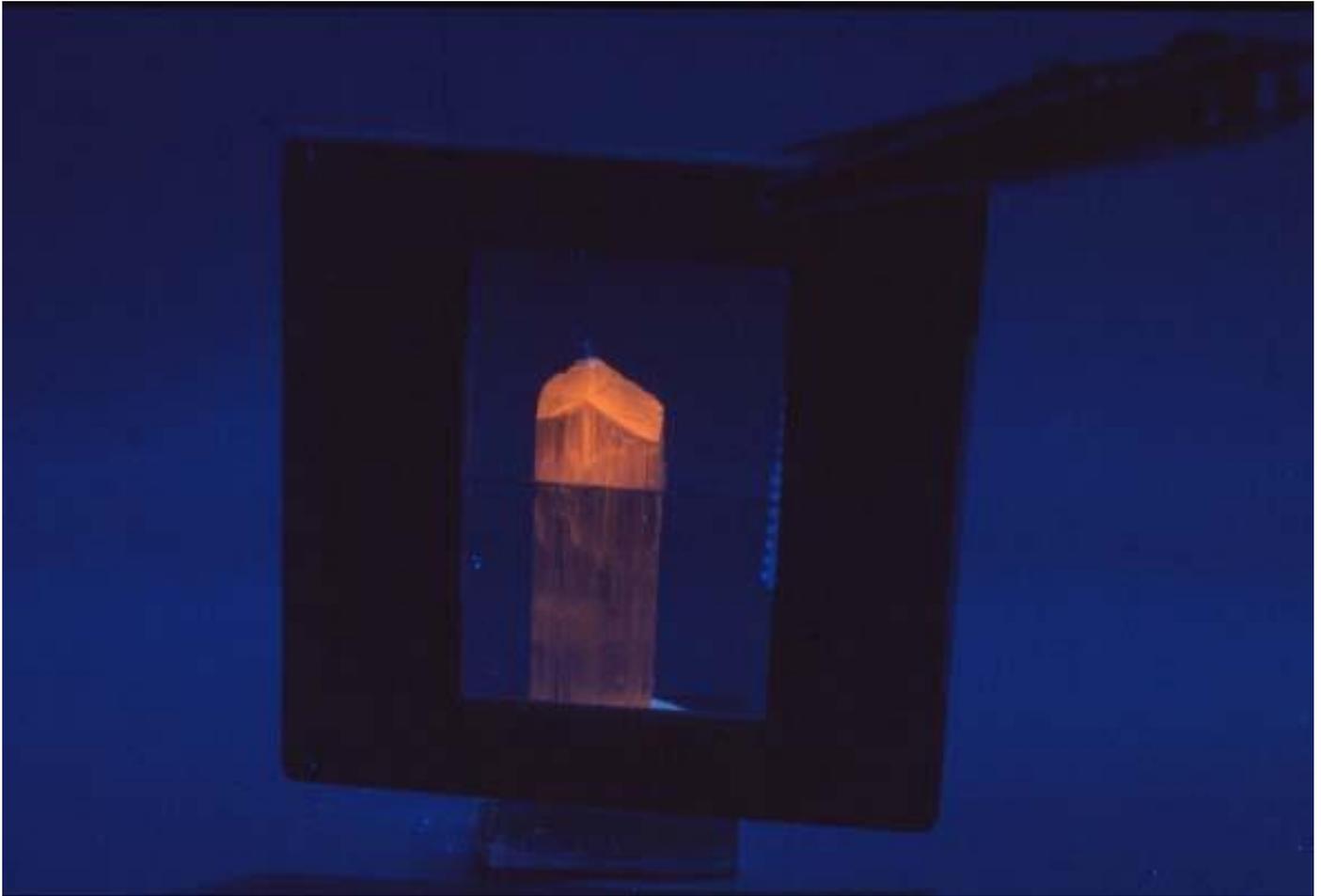
The lower the symmetry of the crystal system, the stronger the effect and the more likely you'll be bothered by it.

This effect depends on two parameters:

- path length: the larger the crystal, the more that the light paths will diverge. A good example is quartz. Small quartz crystals can be photographed without problems. Large crystals, say 10 cm or more, offer enough path length for the different directions in which light is diffracted to produce clear images and their "mirages".
- Refractive index: a high optical density will yield double images, even in small crystals.

I added a couple of images that show an inclusion or "glitch" in a calcite crystal. The first image is taken with a CIRCULAR polarization filter, oriented so that there is a maximal image of the "ordinary beam" and minimal exposure of the "extraordinary beam" (see scheme). Then I took the same image with the filter turned 90°. Now you see the glitch double.

The same applies to fluorescence. Take a look at the photo of a spodumene from Kunar, Afghanistan, fluorescent under 366 nm UV. The slide holds two small pieces of polarizing material with one perpendicular to the other. It's clear that the fluorescence emission is partially polarized, so the same precautions apply as for photographing clear crystals in normal light.



### [Articles from Mike Seeds](#)

## **Shoebox Adventures: Ghost Fluorite**

The baggie that came out of the big shoebox at the end of my microscope table, contained 12 micromounts and 12 photographs. They're specimens from the voice auction at the Atlantic Micromounters Conference in March of 2009. If you buy the specimen, you also get the color photograph taken by Steve Weinberger. Specimen No. 2 turned out to be ghost fluorite and it is spooky stuff.

The fluorite is a single cube about 5 mm on an edge on a granular matrix possibly dolomite. Unlike a lot of colorful fluorite, it is pale amber – roughly the color of dry Champaign. One face has a mysterious seam running down the center and you can see some kind of structure inside the cube that seems to repeat that seam along with some radiating fractures. It's not a beautiful sight until you put a UV light on it. Then the deep inside of the cube lights up with a pale yellowish glow that seems to be incased in the clear outer portions of the crystal – like a ghost trapped in a crystal coffin. It's ghost fluorite.

But it's even better. Watch closely as you click the light off and you can see the glowing core of the crystal fade away over a few seconds. Not only does the crystal's core fluoresce, it phosphoresces – retaining its glow for a short time after the UV light is removed. Spooky.

There are two possible explanations. Perhaps the cube began to grow from a solution depositing fluorite with an impurity that makes it fluoresce under UV. The composition of the solution could have changed later and deposited the outer, clear portion of the cube. The other

possibility is that the cube contains fractures or faults leading into its interior, and, at some point after it formed, a solution seeped inside and deposited the ghostly glow.

The mineral comes from the Flamboro Quarry (sometimes misspelled “Flamborough”) in Hamilton, Ontario, Canada, and those crystals are known to fluoresce and phosphoresce because they contain petroleum inclusions. Evidently, a solution penetrated the crystal and left behind organic compounds that react to the UV light. The ghost is trapped in fluorite, but it isn’t a fluorite ghost.

My records show that the specimen sold in the auction for \$3, which is the starting bid. I bid on it because no one else in the room would risk \$3, and they missed a neat bit of fluorite. If there had been a basket of little paper bags at the front of the room with a sign saying “Micromount Grab Bags – Selected for Your Pleasure by Expert Micromounters – only \$3,” the crowd would have gobbled them up. But no one would raise their hand for a \$3 fluorite. I didn’t know it was ghostly, but it went home with me and into the adventure shoebox at the end of my bench. Lucky me. --

## Shoebox Adventures: Lac Nicolet

The shoebox on the end of my bench is labeled “Atlantic Micromount Conference 3/09.” The other day I pulled out a baggie containing two little gray rocks and a slip of paper that said “Lac Nicolet” - - goodies from the giveaway table at the conference. Micromounters know that site as the Lac Nicolet Antimony Mine in Ham Sud in Quebec. A lot of interesting minerals come from that mine.

The little gray rocks proved to be almost solid stibnite, although there could have been native antimony and galena mixed in. They would be hard to recognize. Some of the stibnite made nice sprays a millimeter or two in diameter, but there was also Kermesite as brilliant crimson acicular sprays. Although they were quite small even for a micromounter, the Kermesite sprays were really beautiful and stood out against the gray background.

The words “Lac Nicolet Antimony Mine” suggest a huge open pit with monster trucks spiraling down the dusty access road to the big shovels at the bottom. In fact, Lac Nicolet is a small, eroded depression in the south side of a hill near the village of St-Martyer-Canadiens, in South Ham (Ham Sud) Township, Quebec. The only sign of mining is a chain link fence around the area.

MinDat says the mine was “never economically viable,” and except for exploratory work, “never went into production.” You can learn more from the March-April 1996 Min Rec. The antimony was discovered in 1863. Two shafts were sunk about 100 feet deep and a few drifts were dug. Later an adit was dug for drainage. Mining in the 1860s recovered 79 tons of poor ore. Except for rich pockets, the ore averages 5% or less antimony. Mining in the 1880s recovered 180 tons of ore, but the mine shut down again. Starting in the 1940s, various mining companies explored the site, but it never went back into production. One of those companies, the nearby Lac Nicolet Asbestos Mines, Ltd, left behind nothing but their name.

Today gravel pits have destroyed nearly all traces of the mine except for the two shafts now surrounded by the fence. It’s not clear whether the gravel pits expose true river gravel or mine tailings. Nevertheless, collectors continue to visit the area (with prior permission) and collect interesting minerals from the remains of the dumps. MinDat lists 43 minerals from Lac Nicole. But take care: the Min Rec article warns that the gravel pits are used by locals for target practice, so prior permission is important.

The two little rocks from the baggie were mostly stibnite, but close examination revealed senarmontite crystals (Sb<sub>2</sub>O<sub>3</sub>). They are translucent and faintly gray octahedral crystals in masses so that turning the specimen under the microscope produces a barrage of triangular flashes as the faces catch the light. Collectors on MinDat refer to this mineral as a “rare species,” but micromounters find it from Lac Nicole.

If you have specimens from Lac Nicolet, look carefully for valentinite. It is a rare antimony oxide, but it shows up on one of the two little rocks from the baggie as stubby, cream colored crystals with lengthwise striations. It has the same chemical formula as senarmontite, but is easy to distinguish by its crystal structure.

You will probably never own a cabinet specimen from Lac Nicole, but micromounters know the site well. It is a rare giveaway table that lacks rocks from the Lac Nicole Antimony Mine. – Mike Seeds

## Coming Events 2013

### **Jun 15-16** 🇨🇦 **Gneiss Guy Minerals and Fossils Warehouse Sale**

Sat 10-5; Sun 10-5

Open to the Public

Come check out our many specials on opening day

BBQ each day from 12:00 – 1:30

820 Gartshore St. Unit 19

Fergus, On N1M 2W8 (located only 1 hour from Toronto)

Contact: Ken Dardano at 519-831-3093 or [gneissguy@bell.net](mailto:gneissguy@bell.net)

**19** 🇨🇦 **Mineral Identification Night at the ROM 4:pm to 5:30 pm.** President's Choice Entrance on Queen's Park, doors nearest Museum subway stop. Visit their website at <http://www.rom.on.ca/en/activities-programs/events-calendar/rock-gem-mineral-fossil-and-meteorite-identification-clinic> or contact at 416-586-5816; [naturalhistory@rom.on.ca](mailto:naturalhistory@rom.on.ca)

### **Jul 14** 🇨🇦 **Prince Edward County Rock, Gem & Mineral Show**

Rekindle the rockhound in you and discover nature's treasures at our second annual event - showcasing gem and mineral, lapidary and jewellery exhibitors in the historic Crystal Palace - 375 Main Street, Picton.

PEC Fairgrounds - Crystal Palace, 375 Main Street, Picton On, 10am to 5 pm Admission: \$3.00, 12 and under free

Contact: 613-476-5510 or email John Zandarin at [howhardcanitbe@sympatico.ca](mailto:howhardcanitbe@sympatico.ca)

**19-  31st Annual Sudbury Gem and Mineral Show**  
**21**

**"Northern Ontario's Largest Gem, Mineral, Fossil, Bead and Rock Craft Show and Sale"**

Fri. 5 pm-9pm, Sat. 10 am-6pm, Sun. 10 am-5pm. Location :Carmichael Arena, 1298 Bancroft Drive across from Minnow Lake; 1 km. south of the Kingsway (Hwy. 17 East)  
Admission: Adults \$5, Seniors (60+) \$3, Kids 6-12 \$1, Kids under 5 free with adult  
Features: Dealers; displays; demonstrations; door prizes (including amethyst geode grand door prize); silent auctions; kid's activities; mineral identification; video theatre; field trip Sun. at noon; BBQ; free handouts and literature; outside dealers/swap area Sat. 11 am-4 pm; prospectors and metal detecting displays; free parking  
Contact: Ed Debicki (705) 522-5140, E-mail: [ed.debicki@sympatico.ca](mailto:ed.debicki@sympatico.ca)

Website: <http://www.ccfms.ca/clubs/Sudbury/show.htm>

**28  Bancroft Gem & Mineral Club 17th Annual Gem & Mineral Show**

Sunday 10 am-4pm.

Bancroft Legion Hall, Station St., Bancroft, ON

Features: 25 dealers plus silent and live auctions

Admission: \$2/adult, children & students (18 yrs & under) free.

Contact: Frank Melanson at 613-332-1032

Aug 1-4

** 50th Annual Rockhound Gemboree - "Canada's largest gem & mineral show"**

North Hastings Community Centre 103 Newkirk Blvd, Bancroft, Ontario and the Bancroft Curling Club at 63 Newkirk Blvd.

for more information, contact the Bancroft & District Chamber of Commerce , Tourism & Informaton Centre in Bancroft. 1-888-443-9999

our website is [www.bancroftdistrict.com](http://www.bancroftdistrict.com)

**17  Rockhound Family Day at Robert Hall Originals**

A fun family event!

Kids Fossil Dig

Rock BuddyCraft For kids – Free

Mineral Identification. Bring A Specimen!

Explore Outdoor Rock Piles!

**Giant Silent Auction** - Bring your items to include in the auction! Bidding begins at 11:00 & 1:00

\*10%commission)

**Free Rock Swap** – Bring a table and set up you treasures. Contact us to reserve your free rock

swap space.

10 am-4pm

138 Sugar Maple Road, St. George Ontario

Admission: Free

Contact: [inquiry@roberthalloriginals.com](mailto:inquiry@roberthalloriginals.com) (519) 448-1236 or 1-800-360-2813

Website: <http://www.roberthalloriginals.com>

**21** **📍** **Mineral Identification Night at the ROM 4:pm to 5:30 pm.** President's Choice Entrance on Queen's Park, doors nearest Museum subway stop. Visit their website at <http://www.rom.on.ca/en/activities-programs/events-calendar/rock-gem-mineral-fossil-and-meteorite-identification-clinic> or contact at 416-586-5816; [naturalhistory@rom.on.ca](mailto:naturalhistory@rom.on.ca)

**Sep 14-15** **📍** **"Wonders of the Earth" - The 44th Scarborough Gem & Mineral Club Show**

Sat. 10-6, Sun. 11-5.  
Don Montgomery Community Centre, 2467 Eglinton Avenue East, Scarborough  
Admission: adults \$5, children \$1  
Contact: Gem & Mineral Club of Scarborough [scarbgemclub@lycos.com](mailto:scarbgemclub@lycos.com)  
Website: [www.scarbgemclub.ca](http://www.scarbgemclub.ca)

**21-22** **📍** **47th Annual Ottawa Gem, Mineral and Jewellery Show & Sale**

Sat. 10-6, Sun. 10-5.

**60 + dealers**

**Nepean Sportsplex  
1701 Woodroffe Avenue  
Ottawa, Ontario**

**For more information check out Web Site**

[www.olmc.ca](http://www.olmc.ca)

or send an email to [dealerchair@olmc.ca](mailto:dealerchair@olmc.ca) or [showchair@olmc.ca](mailto:showchair@olmc.ca)

**27-29** **📍** **Ancaster Gem, Mineral, Bead & Jewellery Show**

Try on the latest in fashionable jewellery. See crystals, fossils & magnificent rocks from all over the world! Shop at over 30 dealers. Take a free seminar on rocks, fossils or crystals. Friday: 9:30 a.m. to 6:00 p.m.

Saturday: 10:00 a.m. to 6:00 p.m.

Sunday: 10:00 a.m. to 5:00 p.m. Ancaster Fairgrounds, 630 Trinity Road, Ancaster, Ontario (corner of Hwy. 52 & Hwy. 53)

Admission: \$8, under 12 Free

Contact: [inquiry@roberthalloriginals.com](mailto:inquiry@roberthalloriginals.com) (519) 448-1236 or 1-800-360-2813

Website: <http://www.roberthalloriginals.com> and click on Shows and Events E-mail: [rockshow@roberthalloriginals.com](mailto:rockshow@roberthalloriginals.com)

**Oct**

**16**

**📍** **Mineral Identification Night at the ROM 4:pm to 5:30 pm.** President's Choice Entrance on Queen's Park, doors nearest Museum subway stop. Visit their website at <http://www.rom.on.ca/en/activities-programs/events-calendar/rock-gem-mineral-fossil-and-meteorite-identification-clinic> or contact at 416-586-5816; [naturalhistory@rom.on.ca](mailto:naturalhistory@rom.on.ca)

**19-20** **📍** **44th Annual Gem Storm. Show and sale sponsored by the Kingston Lapidary and Mineral Club.**

Sat. 10-6, Sun. 10-5.

Portsmouth Olympic Harbour, 53 Yonge St., Kingston, ON.

Features: Over 30 dealers; Children' mine, Jewellery Workshop

Information: Contact Les Moss, Show Chairman at [emoss@cogeco.net](mailto:emoss@cogeco.net)

**26**  **Walker Club Annual Auction**

Sat. 1 to whenever

Knox United Church Christian Education Centre Auditorium in Scarborough. North East corner of Sheppard and Midland avenues.

**Information:** Contact: Bill Lechner at 416-438-8908 or [bill.lechner@rogers.com](mailto:bill.lechner@rogers.com)

**Website:** [www.walkermineralogicalclub.com/](http://www.walkermineralogicalclub.com/)

**Nov 6-13**  **Robert Hall Originals - Annual Fall Open House**

Canadian made pewter gifts & jewellery for Christmas gift giving

10 am-5pm

138 Sugar Maple Road, St. George Ontario

**Contact:** [inquiry@roberthalloriginals.com](mailto:inquiry@roberthalloriginals.com) (519) 448-1236 or 1-800-360-2813

**Website:** <http://www.roberthalloriginals.com>

**16-17**  **London Gem and Mineral Show**

Sat 9-6 Sun 10-5

Western Fairgrounds (NEW larger venue \*Canada Building\*)

Highway #401 to Highbury exit North,

west on Florence, North on Rectory - Main entrance

immediately on right hand side.

**Features:** Over 50 dealers, demonstrators, and educational talks

**Admission:** Adults \$6.00, Children \$3.00

**Contact:** Ken Dardano 519-831-3093 or [gneissguy@bell.net](mailto:gneissguy@bell.net)

**Website:** [www.gemandmineral.ca](http://www.gemandmineral.ca)

**29-1**  **Gneiss Guy Minerals and Fossils Warehouse Sale**

Sat 10-5; Sun 10-5

Open to the Public

Come check out our many specials on opening day

820 Gartshore St. Unit 19

Fergus, On N1M 2W8 (located only 1 hour from Toronto)

Contact: Ken Dardano at 519-831-3093 or [gneissguy@bell.net](mailto:gneissguy@bell.net)

**9**  **CMMA Fall Mini-Conference**

Burlington Arts & Cultural Center, 1333 Lakeshore Road, Burlington, ON, Canada

Contact: Bill Lechner at 416-438-8908 or [bill.lechner@rogers.com](mailto:bill.lechner@rogers.com)

**Website:** <http://canadianmicrominerals.ca/>

**Dec 11**  **Mineral Identification Night at the ROM 4:pm to 5:30 pm.** President's Choice Entrance on Queen's Park, doors nearest Museum subway stop. Visit their website at <http://www.rom.on.ca/en/activities-programs/events-calendar/rock-gem-mineral-fossil-and-meteorite-identification-clinic> or contact at 416-586-5816; [naturalhistory@rom.on.ca](mailto:naturalhistory@rom.on.ca)

# MEMBERSHIP RENEWAL FORM CMMA 2013

NAME : \_\_\_\_\_

ADDRESS : \_\_\_\_\_

PHONE NO : \_\_\_\_\_ E-MAIL : \_\_\_\_\_

**Yearly Membership fees: \$15.00 Can or \$15.00 US**  
**Mail to: Jim Glen, 76 Flannery Ln, Thorold, On, L2V 4V8**