



THE MINERALOGICAL SOCIETY OF NEW SOUTH WALES INC

Website: www.minsocnsw.org.au

Please address all correspondence to :-
The Secretary, 58 Amazon Road, Seven Hills, NSW 2147

NEWSLETTER NOVEMBER 2023

The November Meeting will be held on Friday the 3rd of November at 7.30 p.m. in the clubrooms of the Parramatta and Holroyd Lapidary Club at 73 Fullagar Road, Wentworthville.

The lecture will be given by speakers Lee Spencer, Jocelyn McGrade and Ian Graham on :-

‘Unusual Oxide Mineral Species from Base Metal Veins Surrounding the Mt Turner Porphyry Cu - Mo System, Georgetown’.

Lee Spencer would be the lead speaker, Ian Graham would deal with the Primary Mineralisation and Jocelyn McGrade would speak about the Oxide Zone Minerals.

FORTHCOMING MEETINGS and PROGRAMS

Saturday December 2nd. The Society Annual **Christmas Swap and Sell** will be held on Saturday from 11.00 am to 3.00 pm and would include a BBQ Sausage Sizzle.

As in previous years the Society Christmas Social will comprise the sale or exchange of mineral specimens and mineralogical material, books, magazines and equipment and the opportunity to relax and socialize. A range of food and drinks will be provided and would be set up inside the Club room and also adjacent to the BBQ griller outside. The Lapidary Club premises will be open from 10.00 am and members with sale material will be asked to drive into the car park to unload but must then move their cars outside the grounds where street parking is available nearby. Sellers will be particularly asked not to commence selling before 11.00 am and other members will be recommended not to arrive before then.

Tables for the sales will be set up both inside the Lapidary Club room and outside in the car park under awnings. Either location may be used for sales depending on the preference of the seller and first come, first choice. Members intending to sell are recommended to book a table and specify their preference for inside or outside by notifying the Secretary, George Laking, on (02) 9636 7145, Mobile 0468 387 899 or e-mail bglaking@tech2u.com.au. Depending on the number of tables being requested and limited room inside the Club some sellers may have to accept being assigned an outside table.

Members are reminded that anyone attending the Christmas Social who was not currently financial may buy but would not be allowed to sell minerals.

2024: The Society does not hold General Meetings in January. The first Meeting in 2024 will be on Friday, February the 2nd. Meetings will be held at the Parramatta and Holroyd Lapidary Club on the first Friday of each subsequent month through the year except if the date is before a long weekend when the Meeting would be held on the second Friday.

The SOCIETY COMMITTEE

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The OCTOBER MEETING

At the commencement of the Meeting the President, Dieter Mylius drew attention to the minerals which had been brought in, donated by members for sale for the **Kids with Cancer Foundation**. Last year the sale had provided about \$500 for the charity, compared to over \$1,000 in previous years, and it was hoped that the current sale would provide a generous amount.

Referring to forthcoming **Field Trips** the President noted that a visit to the Ardglenn quarry alongside the New England highway near Murrurundi was scheduled for the 3rd of November. The quarry was a source of a number of zeolite minerals and a full complement of twelve members were registered to attend. The Society had not been allowed to enter with more than twelve people.

John Chapman reported that he and a small party had paid a visit to **Kulnura quarry** to investigate what mineralisation might be currently exposed. They had found a few small pieces of a zeolite and some intriguing pieces of a purple-coloured basalt which had been sent to the Australian Museum for identification. Depending on mineral exposure a visit to Kulnura was an option for the future, the quarry management being willing to allow visits.

Graham Ogle announced that a meeting of the **Micro-Mount Group** would be scheduled probably for the end of the month and he would contact members when the date and venue were confirmed. Any Society members could attend the meetings but were asked to notify him in advance.

The Meeting was then handed over to Graham Ogle who was to deliver the first talk of the evening.

A New Mineral from Kingsgate

Graham Ogle

The speaker initially noted that over fifty minerals have been reported from the mining area of Kingsgate and up to a few months ago included one type locality mineral – kingsgateite. A second type locality mineral has now been added to the list and he would explain the background to this addition during his talk. The Kingsgate mineral field is located about 20 klm east of Glen Innes in New England. It has been the largest producer of molybdenum & bismuth in NSW mainly over the period from 1905 to 1920 but has also produced a suite of minerals. The molybdenum occurred in about 70 pipes over an area of around 700 acres.

The field has been quite prolific for mineral species. Many of the minerals are bismuth or molybdenum-containing but there are others of arsenic, tungsten, lead, sulphur, antimony, tin, iron, zirconium, copper and small amounts of silver minerals and gold. There have also been large amounts of optical and smoky quartz found.

The discovery of the new mineral derived from the examination of specimens in the Bill Aird collection. Bill was a South Australia collector who collected widely and passed away a few years ago. His collection was bought by Peter Elliott, (UA, SAM), who has been working through the collection and so far has identified five new minerals from various sites These were :-

Airdite – from the Spring Creek Mine	another from the Iron Monarch mine in SA.
Magnesiobermanite – White Rock #2	Whiterockite – White Rock Quarry #2
and ‘Mineral X’ from Kingsgate	

Initially Peter Elliott had only the one specimen of ‘mineral X’, a new bismuth molybdate. The mineral was found associated with molybdenite, bismuthinite, ferrimolybdite, cannonite, sulphur and wulfenite so it may have been from the Old 25 Pipe. It was yellow-greenish-brown, monoclinic with prismatic crystals to 1.1 mm. Subsequently, Graham Ogle sent Peter a specimen to identify which he had collected from the Wolfram Pipe at Kingsgate on a visit in 2020. The answer came back that this was a second specimen of ‘mineral X’. Graham speculated that there could be other specimens of the mineral in member’s ‘hidden’ collections. Bismuth molybdates are rare and Graham Ogle displayed a short list of others from sites around the World.

Daniel Mine, Saxony, Germany

Koechlinite Bi_2MoO_6

Su Seinargiu, Sardinia, Italy

Gelosaite $\text{BiMo}^{6+}_{(2-5x)}\text{Mo}^{5+}_{6x}\text{O}_7(\text{OH}) \cdot \text{H}_2\text{O}$

Mambertiite $\text{BiMo}^{5+}_{2.80}\text{O}_8(\text{OH})$

Sardignaite $\text{BiMo}_2\text{O}_7(\text{OH}) \cdot 2\text{H}_2\text{O}$

Suseinargiuite $\text{NaBi}(\text{MoO}_4)_2$

Chilu Mo Deposit, Fujian, Mexico

Chiluite $\text{Bi}_3\text{Te}^{6+}\text{Mo}^{6+}\text{O}_{10.5}$

Vaulry Mines, New-Aquitaine, France

Schlegelite $\text{Bi}_7(\text{AsO}_4)_3(\text{MoO}_4)_2\text{O}_4$

Kingsgate, NSW, Australia

Kingsgateite $\text{ZrMo}^{6+}_2\text{O}_7(\text{OH})_2 \cdot 2\text{H}_2\text{O}$

In order to present the mineral to the IMA for it to be recognised and approved the finders had to suggest a name. Minerals tend to be named after their chemistry, the locality, the geological formation, or a notable mineralogist from the state of locality. A few possibilities were considered, kingsgateite having already been taken and Peter Elliott did not favour double-barrelled names such as georgesmithite. Peter asked Graham for some suggestions and one name suggested was a mineralogist who he knew had spent many years working in geology and mineralogy in Australia, New Zealand and America and had published a number of papers: Society member David Colchester, and hence the mineral would be called colchesterite.



David Colchester

Colchesterite is a bismuth molybdate - $\text{Bi}^{3+}_2\text{Mo}^{6+}_2\text{O}_9$.

According to Mindat it is chemically similar to koechlinite and sardignaite and to the (otherwise Mo^{5+} -bearing species), gelosaite and mambertiite.

It has been approved by the IMA (International Mineral Association), and is awaiting publication

After Graham Ogle had concluded his talk and answered a few questions, David Colchester addressed the Meeting. He noted that the naming had been a surprise although he had been contacted some three months ago by Peter Elliott who had asked if his name could be put forward. He was quite agreeable and in the course of a discussion about the mineral the prospect of manufacturing some was mooted.

David also described how about two years before he retired from full-time work he was not sure how he would spend his retirement and mineralogy was only one of several of his interests. However shortly after retiring he was invited by Ian Graham and Ross Pogson to join them on a project and a few weeks later was asked by Peter Williams to join his group. Due to the influence of those three people David Colchester has continued working on mineralogical projects for the last fifteen years.

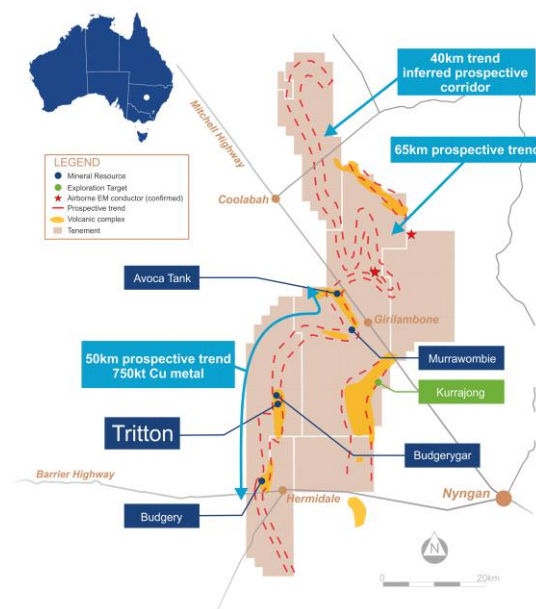
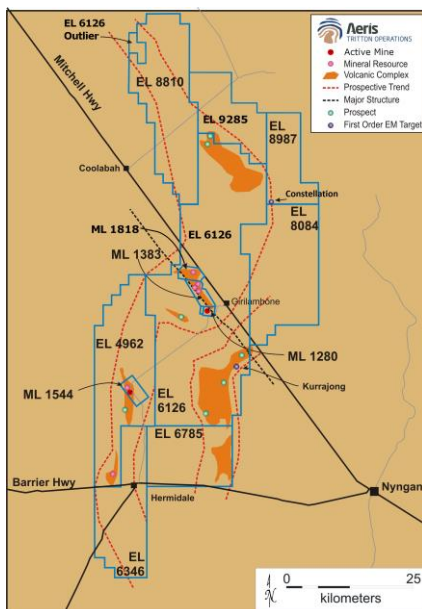
John Chapman introduced the next speaker of the evening. Some twelve to thirteen years ago he was on a field trip to Cows Flat mine near Torrington in New England and the geologist who showed the party around the site was Ian Bailie. In recently making inquiries about the Constellation Deposit he found that Ian Baillie had been involved in the discovery of the major site and has invited him to deliver the lecture. ‘

‘The Discovery of the Constellation Copper Deposit, NSW’

Ian Bailie

Ian Bailie commenced his lecture by introducing his company, Aeris Resources, noting that its CEO (André Labuschagne) is the father of one of Australia’s cricketers. Aeris has been active in central NSW for many years and among other projects was involved with operating the Girilambone deposit. Currently the main Aeris mine in the area is Tritton Copper Operations near Nyngan and Cobar but there are also several other sites under exploration and development. These include the Constellation Project which is located approximately 55 km north of Nyngan, 200 km north-west of Dubbo. More than 750,000 tonnes of copper have been discovered on the Tritton tenement package since modern exploration commenced at the site in the 1980’s. The tenement package is highly prospective for base metals deposits, covering about 2,330km² of the Girilambone Basin.

With the aid of a number of diagrams of aerial and then ground-based electro-magnetic readings the speaker described how the company conducted its exploration for new deposits. These initially included aerial geophysical mapping of the Budgery Sandstone which overlay much of the target area using aeromagnetic/radiometric data to interpret the distribution of the Sandstone north of the Mitchell Highway. Ian Bailie also indicated the time-line for the exploration project which had commenced in 2019.



FORTHCOMING EVENTS

The 45th Annual Seminar of the Joint Mineralogical Societies of Australasia

To be held over the 5th to the 10th of November at the Grindelwald Conference Centre, Tamar Valley Resort, Grindelwald, Northern Tasmania, (near Launceston).

Field trips and Gem and Mineral Show visits after the seminar.

For further information: - <http://www.mineral.org.au/seminar/seminar23.html>



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