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The S A Gem and Mineral Club

Associated Member of **FOSAGAMS**
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Chairman: Reinhardt van Vuuren: Cell: 0742408053 sagemclubpe@gmail.com

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Phone calls preferably after 17:00 weekdays

February 2015 NEWSLETTER

SUBS ARE NOW DUE

R130.00 PER INDIVIDUAL, R150.00 FOR FAMILY AND
R60 STUDENT

Payment can be made at the next Club meeting or

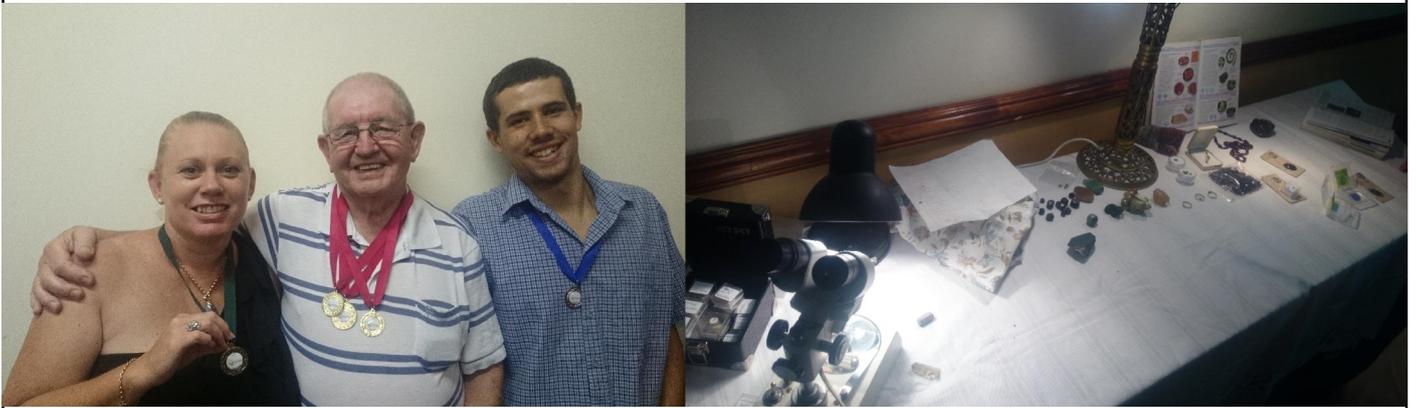
By Direct Deposit or by EFT into the Club's Savings Account:

SA GEM & MINERAL CLUB ABSA BANK Greenacres Branch

Branch Code 632-005 Savings Account No 380 3157 1933

PLEASE USE YOUR SURNAME AS REFERENCE FOR
DEPOSIT AND ADVISE THE TREASURER, DONAE' 0837735222

LAST CLUB MEETING : Was Thursday 29th of January 2015 in the Conference Room at St Saviour's Church Hall, Cnr Villiers Road and 1st Avenue Walmer at 7:30pm. There were 15 members and 1 visitor present. We had members bring samples of garnet and emerald, there was a big variety on display. The chairman showed some of the non micro mineral specimens that he had found at the Maitland mines over the last year, he also shared the total list of minerals that have been found at the mines of which about 80% are micromount sized specimens. Derek shared about a large garnet he bought when he was in Namibia.



WORKSHOP : The workshop is open EVERY Saturday between 02:00 and 05:00 and we welcome members to come and enjoy our facilities, perhaps prepare something for the next meeting or even just pop in to say HI to those that are working, it's always good to meet up will fellow club members so please feel welcome. Please call Angie on 0748874557 or Ray 0742408053 to let us know you are coming.

NEXT MEETING : Will be on Thursday the 26th of February 2015, at the Conference Room, St Saviour's Church Hall, Cnr Villiers Road and 1st Avenue, Walmer, at 7.30pm. The Birthstones for this month is amethyst and bloodstone. Please bring specimens for the display table. Come and enjoy a slideshow on the recent Tucson Gem show.

PROJECT : Mosaic Project to be completed by the end of April and presented at the meeting of the 30th of April 2015. More about this at the next meeting.

Amethyst is a violet variety of quartz often used in jewellery. The name comes from the Ancient Greek *ἀ-α-* ("not") and *μέθυστος* *méthystos* ("intoxicated"), a reference to the belief that the stone protected its owner from drunkenness. The ancient Greeks wore amethyst and made drinking vessels decorated with it in the belief that it would prevent intoxication. It is one of several forms of quartz. Amethyst is a semiprecious stone and is the traditional birthstone for February.

Amethyst is a purple variety of quartz (SiO_2) and owes its violet colour to irradiation, iron impurities (in some cases in conjunction with transition element impurities), and the presence of trace elements, which result in complex crystal lattice substitutions. The hardness of the mineral is the same as quartz, thus it is suitable for use in jewellery. Amethyst occurs in primary hues from a light pinkish violet to a deep purple. Amethyst may exhibit one or both secondary hues, red and blue. The best varieties of Amethysts can be found in Siberia, Sri Lanka, Brazil and the far East. The ideal grade is called "Deep Siberian" and has a primary purple hue of around 75–80%, with 15–20% blue and (depending on the light source) red secondary hues. The colour of amethyst is often laid out in stripes parallel to the final faces of the crystal. One aspect in the art of lapidary involves correctly cutting the stone to place the colour in a way that makes the tone of the finished gem homogeneous. Often, the fact that sometimes only a thin surface layer of violet colour is present in the stone or that the colour is not homogeneous makes for a difficult cutting. The colour of amethyst has been demonstrated to result from substitution by irradiation of trivalent iron (Fe^{3+}) for silicon in the structure, in the presence of trace elements of large ionic radius, and to a certain extent, the amethyst colour can naturally result from displacement of transition elements even if the iron concentration is low.

Natural amethyst is dichroic in reddish violet and bluish violet, but when heated, turns yellow-orange, yellow-brown, or dark brownish and may resemble citrine, but loses its dichroism, unlike genuine citrine. When partially heated, amethyst can result in ametrine. Amethyst can fade in tone if overexposed to light sources and can be artificially darkened with adequate irradiation. In the 19th century, the colour of amethyst was attributed to the presence of manganese. However, since it is capable of being greatly altered and even discharged by heat, the colour was believed by some authorities to be from an organic source. Ferric thiocyanate has been suggested, and sulphur was said to have been detected in the mineral.

