

Association of Applied Geochemists

www.appliedgeochemists.org

FROM THE PRESIDENT



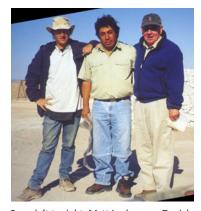
Matt Leybourne

Wishing everyone a great holiday season and all the best for the New Year! Hopefully, 2015 will bring positive changes in the mineral exploration industry. Certainly, the Association of Applied Geochemists (AAG) will be doing its part to generate interest through our biannual conference, where we showcase the latest in our research efforts in exploration geochemistry, the geochemistry of the environment associated with mineral extraction, and advances in analytical methodologies.

The AAG emphasises and encourages student participation in the International Applied Geochemistry Symposium (IAGS); we had excellent student attendance at the 26th IAGS in Rotorua last year. The organizers are again offering financial assistance for students to present their research; applications close on January 1, 2015. Students planning on attending should also note the free workshop on getting your research published in the peer-reviewed literature, and the AAG's Student Paper Prize, which is awarded every two years for the best student first-authored paper published in the AAG's journal, *Geochemistry: Exploration, Environment, Analysis (GEEA)*.

The AAG has now officially entered the modern social media world, thanks to the efforts of Romy Matthies, Sarah Rice, and Bruno Lemiere. The AAG has a blog on its website, has a Twitter account (@ AAGeochemists), and is on LinkedIn with the group "Association of Applied Geochemists." At the time of writing, in early October, the group already had 80 members.

As noted previously, our journal, *GEEA*, was looking for a new chief editor. A new editor will be announced in the near future. I am hoping that a large number of papers will come out of the Tucson IAGS in April to keep the new editor (and associates) very busy throughout 2015. Once again, I would like to express my thanks and admiration for the job Gwendy Hall has done over the last 14 years of the journal's existence.



From left to right, Matt Leybourne, Daniel Salinas, and Eion Cameron

In the last issue of Explore, Gwendy Hall wrote a moving obituary for our friend and colleague Eion Cameron. On a personal note, Eion was a great mentor to me and I really miss his guidance and zest for science. He can be seen doing field work at the Spence copper porphyry deposit in Chile in the accompanying photograph with myself and Daniel Salinas from Rio Tinto. Keiko Hattori at the University of Ottawa is leading an effort to assemble a special issue of GEEA in honour of Eion. Although Eion passed away before the volume could be

completed (hopefully to appear in 2015), he was shown the list of authors and papers. This will be an excellent issue that highlights many of the areas in exploration geochemistry in which Eion was influential.

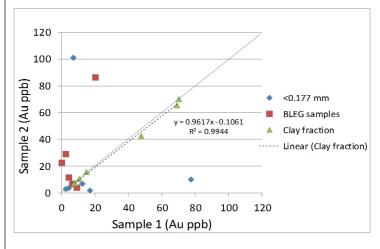
Matt Leybourne (Matthew.Leybourne@alsglobal.com) ALS Global, AAG President

RECENT ARTICLE PUBLISHED IN EXPLORE

D. ARNE AND B. MACFARLANE (2014) Reproducibility of gold analyses in stream sediment samples from the White Gold District and Dawson Range, Yukon Territory, Canada. *EXPLORE* 164 (September 2014)

Poor data precision for Au in historical, publicly available stream sediment data sets from the Yukon Territory, Canada, has led to a loss of confidence in this medium for Au exploration in some instances and an underutilisation in exploration programs where the geochemical focus has been solely on Au. The traditional approach of taking large samples for bulk analytical treatment or heavy mineral concentration has issues related to reproducibility from field duplicates due to the generally coarse-grained Au collected in the field, particularly where aggressive cyanide digestions are employed.

An alternative approach to obtaining representative Au data involves the analysis of the clay-sized fraction (<2 µm). The method provides more reproducible data for Au than conventional aqua regia digestion and analysis of the <0.177 mm fraction, as well as providing data for other potential pathfinder elements. Data from duplicate pairs from six sample locations near the Golden Saddle and Coffee Au deposits, Yukon Territory, and from three background samples are used to compare three analytical methods for Au: bulk leach-extractable gold (BLEG) analysis of 1 kg of <0.177 mm fraction; aqua regia digestion and ICP-MS analysis of a 30 g aliquot of <0.177 mm fraction; and aqua regia digestion and ICP-MS analysis of 0.5 g of <2 μm (clay-sized) fraction. This use of the clay-sized fraction provides reproducible Au data from field duplicates, even in samples that are not found to be particularly clay-rich in the field. The evaluation of reliable Au data for stream sediment samples, coupled with low-level multi-element analysis for potential pathfinder elements, is a cost-effective way to undertake regional exploration over large areas and should not be discarded simply because of issues with the reproducibility of historical Au analyses.



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