

#### SECOND CIRCULAR

16TH BIENNIAL MEETING

Rotorua, New Zealand • 28 - 31 March 2022 • www.sga2022.org

# THE CRITICAL ROLE OF MINERALS IN THE CARBON-NEUTRAL FUTURE

### Invitation

Welcome to the 16<sup>th</sup> Biennial Meeting of the Society for Geology Applied to Mineral Deposits (SGA), 28-31 March 2022 in Rotorua, New Zealand (www.rotoruanz.com). A hybrid format provides the option of in-person or virtual attendance.

#### **Rotorua**

With a population of 68,000, Rotorua is a thriving city with an economy focused around tourism, retailing, forestry and manufacturing. It is often referred to as the 'Lake District' because of the number of fishable lakes within its boundaries. Rotorua was historically New Zealand's first tourism destination, because of thermal features such as the Pink and White Terraces (destroyed in the 1886 Tarawera eruption).

Rotorua is the heartland of Māori culture, with Māori making up approximately 35% of the population in the Rotorua district. SGA delegates will have the opportunity to experience the warm spirit of Māori culture with a traditional Māori pōwhiri (welcome), concert and hangi (food cooked in an earth oven).

### **Meeting Venue**

The conference venue is the Rotorua Energy Events Centre located on the steamy edge of Lake Rotorua, in the immaculately manicured and picturesque Government Gardens. The cities major hotels and central business district lie just a few minutes walk away and the venue is only a 15 minute taxi ride from the airport. The centre has extensive free car parking.

## **Hybrid Conference Format**

With the ongoing COVID-19 pandemic and the uncertainty around international travel restrictions to New Zealand in March 2022, the 16<sup>th</sup> SGA Biennial Meeting will have a hybrid format with both in-person and virtual registration options. Due to the international nature of SGA, we are planning to offer a programme to suit both those attending the event in New Zealand as well as those joining virtually.

#### **Programme**

The meeting will feature presentations on topics related to mineral deposit research, exploration, sustainable development and environmental and social performance aspects related to mineral deposits. The oral and poster presentation sessions, and preand post-conference short courses and field trips provide a comprehensive programme.







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Champagne Pool at Waiotapu with Artists Palate sinter (left) and Au-bearing orange precipitate (right)

## SHORT COURSES AND WORKSHOPS

#### PRE-CONFERENCE

**Predictive geometallurgy** - 1-day (26 March), presented by Jens Gutzmer, Lucas Pereira, Max Frenzel, and Raimon Tolosana Delgado (Helmholtz Institute Freiberg for Resource Technology)

**Exploration geochemistry: applying the fundamentals** (AAG) - 1-day (27 March), presented by David Cohen (University of NSW) and Dennis Arne (Telemark Consultants)

Advances in the science of and exploration for magmatic Ni-Cu-PGE-Au-Te deposits: from the classic to the unconventional - 2-days (26-27 March), presented by David Holwell (University of Leicester), Marco Fiorentini (UWA), Daryl Blanks (University of Leicester) and Joshua Chong (UWA)

**Fundamentals of spectral reflectance for mineral exploration and mining** - 2-days (26-27 March), presented by Jonathan Cloutier and Lejun Zhang (CODES, UTas), and Jessica Stromberg and Carsten Laukamp (CSIRO)

Porphyry Cu-Ag deposits - 2-days (26-27 March), presented by David Cooke (UTas)

Enhancement and structural interpretation of geophysical data at the prospect to lithospheric scale: applications to mineral exploration - 2-days (26-27 March), presented by Lyal Harris (Institut National de la Recherche Scientifique - Eau Terre Environnement, Québec)

#### POST CONFERENCE

**Geology, genesis and exploration of epithermal ore deposits** - 1-day (1 April), presented by Stuart Simmons (Hot Solutions)

An introduction to machine learning and multivariate data analysis - 1-day (1 April), presented by Michael Gazley (RSCMME), Shawn Hood (GoldSpot) and Matt Cracknell (UTas)

Structural geology of orogenic gold deposits: primary and secondary controls on ore distribution in deposits and districts - 2-days (1-2 April), presented by Stephen Cox (Australian National University) and David Rhys (Panterra Geoservices)

**Fusing geochemistry and structure in 3D for best practice exploration, mining and research geology** - 2-days (1-2 April), presented by Nick Oliver (HCOVGlobal Consultants and James Cook University) and Dale Sims (Dale Sims Consulting)



Outcrop of the Empress vein in the Reefton Goldfield (left) and underground exposure of the Wakamarina vein in Marlborough (right), both orogenic gold deposits.



### TECHNICAL PROGRAMME AND ABSTRACT SUBMISSION

The technical programme will have plenary sessions, several streams of concurrent sessions, and separate poster sessions.

The main theme for the conference is *The Critical Role of Minerals in the Carbon Neutral Future* and Abstract submissions are encouraged on this and other topics related to mineral deposit research, exploration, sustainable development and environmental and social aspects related to mineral deposits.

Concurrent session topics are listed at https:// confer.eventsair.com/sga2022/technical-

programme. Abstracts for consideration for inclusion in the technical programme and publication in the conference proceedings volume must be submitted by **30 September 2021**. There is a choice of submitting either an Abstract (max 300 words) or a Short Paper (Max 4 pages, including an abstract of max 200 words). Information on the submission process, document formatting and templates are provided at https://confer.eventsair.com/ sga2022/call-for-abstracts

#### **TRADE EXHIBITION**

The Trade Exhibition provides a forum for companies and organisations to exhibit their products and services. It is open throughout the conference and is the venue for lunches, morning and afternoon tea/coffee, and some evening functions. Sponsors & Exhibitors will also have the opportunity to set-up a Virtual Booth to connect with virtual attendees.

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Mt Tarawera



Southern Alps

#### **FIELD TRIPS**

#### NEW ZEALAND

**Orogenic and placer gold deposits of the South Island** – 7-day, pre-conference (19-25 March) field trip providing an overview of the geological setting and visits to gold deposits, including the Macraes gold mine which has produced >5 Moz Au since 1990.

**Volcanic features of the Taupo Volcanic Zone** – 2-day, pre-conference (26-27 March) tour of andesite stratovolcanoes and rhyolite domes, calderas and ignimbrite deposits.

Volcanic features of the Rotorua area – 1-day, post conference (1 April) tour viewing rhyolite domes, calderas and ignimbrite deposits.

**Epithermal environments of the North Island** – 5-day, post conference (2-6 April) field trip visiting active volcances and geothermal systems of the Taupo Volcanic Zone and epithermal Au-Ag deposits in the Coromandel Peninsula, Hauraki Goldfield.

#### AUSTRALIA

**Arc-and orogenic-associated mineral systems in Victoria** – 5-day, pre-conference (21-25 March) field trip visiting porphyry-style and world-class orogenic gold deposits, including underground mine tours of selected orogenic gold deposits (e.g. Fosterville, Stawell, and Costerfield).

**Metallogenic evolution of the Yilgarn Craton, Western Australia** – 7-day, preconference (19-25 March) field trip visiting classic geological localities of both nickel and gold deposits showcasing the deposit style diversity and focusing on mineral system formation from regional to deposit scales.

VHMS and Sn deposits of Western Tasmania: from exploration to remediation – 5-day, post conference (2-6 April) field trip visiting several Cambrian VHMS and Devonian granite-related deposits (e.g. Hellyer, Mt Lyell, Henty and Rosebery-Hercules VHMS, Renison Sn and Kara Fe-W skarn).

#### **NEW CALEDONIA**

**Geology, and Ni and Cr deposits of New Caledonia** – 10-day, pre-conference (16-26 March) field trip visiting outcrops of the main tectonostratigraphic units of the island's geology, and active nickel and chromite mines. The tropical island scenery and French colonial features make this tour highly suitable for accompanying persons.





Epithermal laminated quartz vein, Golden Cross (left) and breccia of vein fragments, Favona (right), Hauraki Goldfield.

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## **STUDENTS**

Students are invited to attend and encouraged to submit abstracts and present their research results at the 16<sup>th</sup> SGA Biennial Meeting which offers a great opportunity for them to interact with leading scientists, other young researchers and the industry in an informal environment. Incentives include discounts, prizes and opportunity to apply for travel grants.

### ACCOMPANYING PERSONS PROGRAMME

**Sunday** - Government Gardens, Rotorua Museum, Te Puia Māori cultural centre and Whakarewarewa Māori village

**Monday** – Rotorua amphibious Duck tour and Skyline gondola and café

**Tuesday** – Orakei Korako thermal park and Huka Falls cruise

Wednesday - Hobbiton movie set, Mills Reef winery and Mount Maunganui and beach

**Thursday** - Lake Rotorua cruise, Mokoia Island, Wingspan Birds of Prey and Redwoods treewalk

## **KEY DATES**

**30 September 2021** Deadline for abstract submission

**26 October 2021** Online registration open

**1 February 2022** Deadline for early bird registration

**REGISTER YOUR INTEREST** join the mailing list at: www.sga2022.org