



AUCKLAND
3-5 APRIL 2019

#pacrim2019

Preconference field trip (FT4) The Ordovician porphyry copper-gold province of central NSW, Australia

OVERVIEW: Participants on this field trip to the Ordovician porphyry copper-gold province of central NSW will gain a brief overview of the Macquarie Volcanic Province that hosts the operating Cadia, Northparkes and Cowal mines, and of these deposits themselves. The many unusual features of this province have led to both island arc and extensional rift settings proposed for the formation of both porphyry and vein deposits and both models will be discussed along the way. Preservation of mineral deposits over 450 Ma is just one of the intriguing features!

LEADERS: Dick Glen (Richard Glen Consulting) and Phil Blevin (Geological Survey of New South Wales)



Dick is Adjunct Professor at Macquarie University in Sydney, having retired as Senior Principal Research Scientist from the GSNSW in 2013. At the Survey, he worked on many regional mapping projects as well as mineral and energy framework studies, including joint Federal Government funded projects, such as the one with CODES, University of Tasmania (Tony Crawford and Dave Cooke) on the Macquarie Volcanic Province.



Phil is Manager - Mineral Systems at the Geological Survey of New South Wales with an interest in understanding how mineral systems work in both igneous and sedimentary rocks. Before that, he worked on government and industry-funded projects on granite fertility and on intrusion-related Cu-Au igneous rocks, and also consulted in Australia and overseas for industry and government agencies.

START: Newcastle, noon Friday 29 March. Participants will need to organise their own travel arrangements to Newcastle airport (subject to discussion).

END: Finishes at Sydney Airport noon Tuesday 2 April, ready for the flight to Auckland.

DURATION: Five days

PROVISIONAL ITINERARY

Friday 29 March: Assemble at noon at Newcastle for the drive to Orange. Evening: introduction to the Ordovician porphyry copper-gold province and the Macquarie Volcanic Province. Overnight Orange.

Saturday 30 March: AM: Cadia Mine. PM: Geology southern Molong Volcanic Belt (or vice versa). Overnight Orange.

Sunday 31 March: AM: Drive west to Junee-Narromine Volcanic Belt and geology of the northern part of the belt. PM: Northparkes Mine. Overnight Forbes.

Monday 1 April: AM: geology of the southern part of the Junee-Narromine Volcanic Belt. PM: Cowal gold Mine. Overnight Bathurst. Discussion after dinner.

Tuesday 2 April: Drive to Sydney via Blue Mountains for tourist stops and geological scenery. Arrive Sydney Airport at noon, for flight to Auckland.

INCLUDED:

- Road transport during the field trip
- 4 breakfasts, 3 lunches and 4 dinners
- Accommodation (single or share) for 4 nights

NOT INCLUDED:

- Transport to Newcastle.
- Flight from Sydney to Auckland
- Any snacks (stops will be made for participants to purchase these)
- Alcohol

SPECIAL REQUIREMENTS: The field trip involves easy walking. Enclosed footwear, long trousers, long shirt, sturdy enclosed shoes, sun hat and wet weather gear. Sun screen is

advised. Discussions with mines might lead to requiring more personal protection equipment.

If you are a visitor to Australia you should arrange for travel and medical insurance before travelling to Australia, because many medical services are not free to overseas visitors.

MAXIMUM NUMBER OF PARTICIPANTS: 50

MINIMUM NUMBER OF PARTICIPANTS: 16

COST:

NZ \$2420 (Early bird)

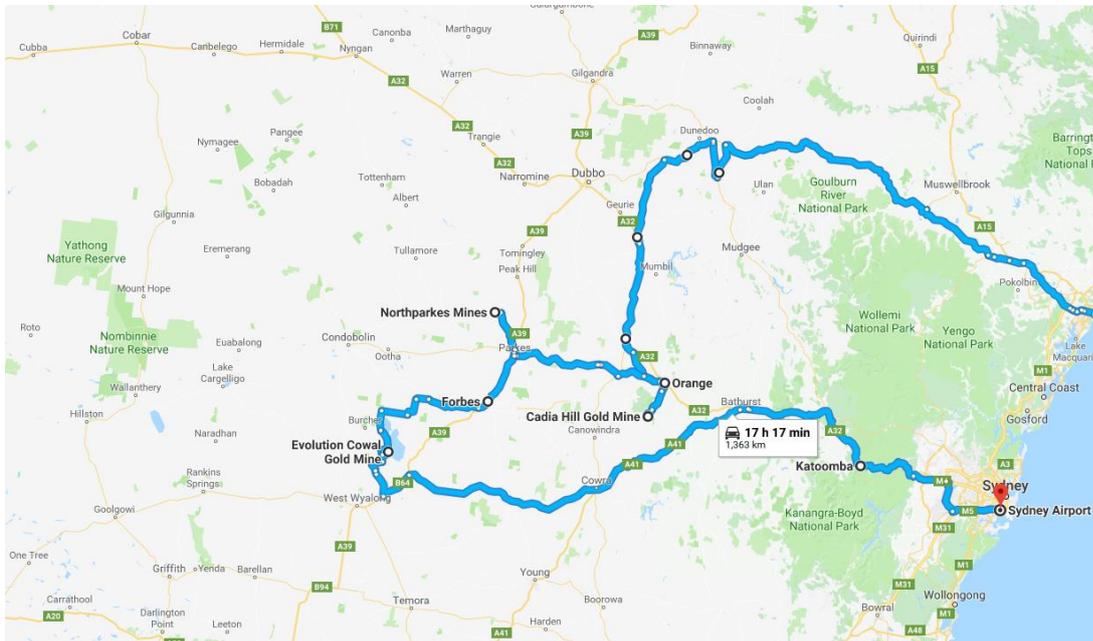
NZ \$2680 (Standard)

NOTE: This field trip is subject to confirmation and minimum numbers. Some activities may be weather dependent. Mine visits are subject to permission from the operators.

FURTHER INFORMATION: email Dick Glen at geology.rg@gmail.com

REGISTRATION: Visit <http://pacrim.ausimm.com>

ROUTE MAP





Cadia mine (Source www.blayneynsw.com/Cadia_Mine.html)



Cadia mine (Source www.bathurstcitylife.com.au/events/cadia-mine-to-open-doors/)



Cadia mine open pit, 2007



Northparkes mine in 2014
(Source: watt.electricalnews.com/NEWS/Northparkes-celebrates-20-years-of-mining/18987)



Aerial photograph of Northparkes mine site
(Source: www.researchgate.net/publication/289442574_Northparkes_Mines_-_Flotation_and_Planning_for_the_Future/figures?lo=1)



Northparkes mine open pit, 2004



Cowal mine (Source: www.mining.com/wp-content/uploads/2015/05/barrick-gold-sells-cowal-mine-to-evolution-mining-for-550-million.jpg)