Vulcan IOCGU Discovery

- Under Investigation

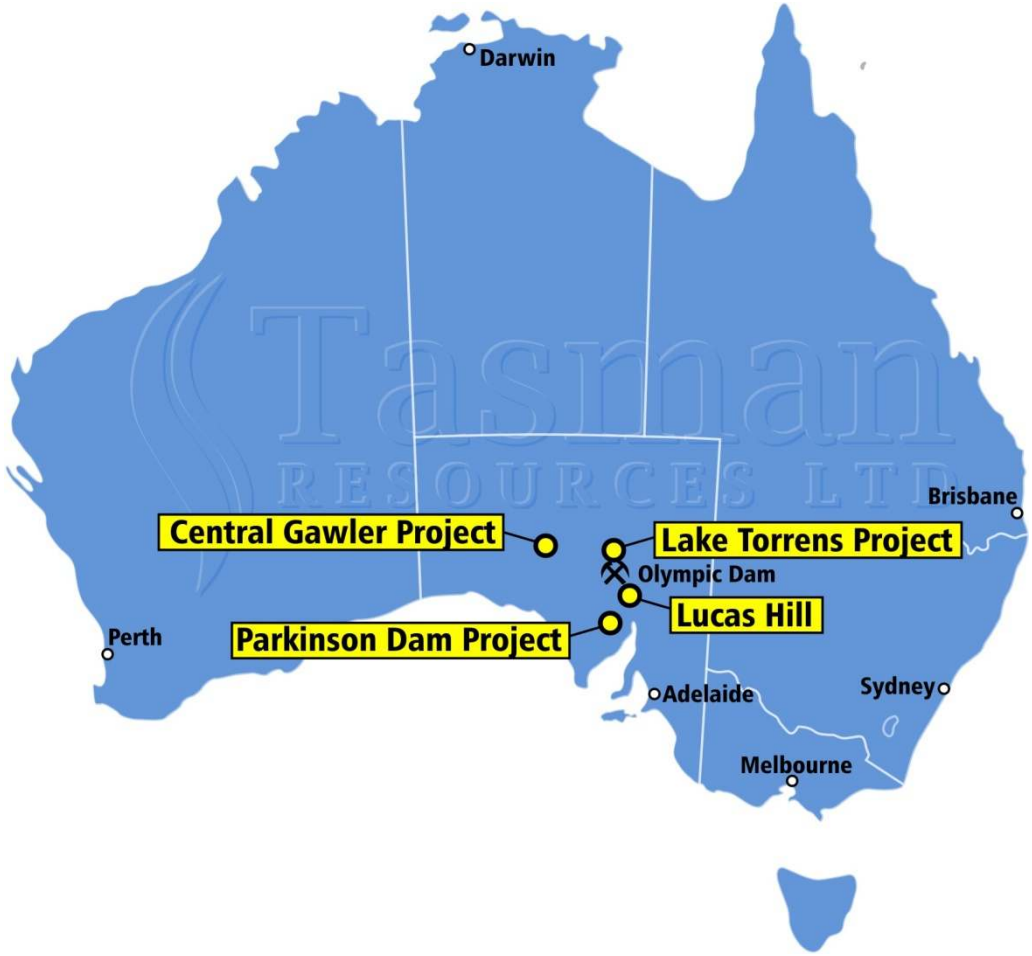
Disclaimer

The interpretations and conclusions reached in this presentation are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty.

Any economic decisions that might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk.

It should not be assumed that the reported Exploration Results will result, with further exploration, in the definition of a Mineral Resource.

Tasman Project Locations



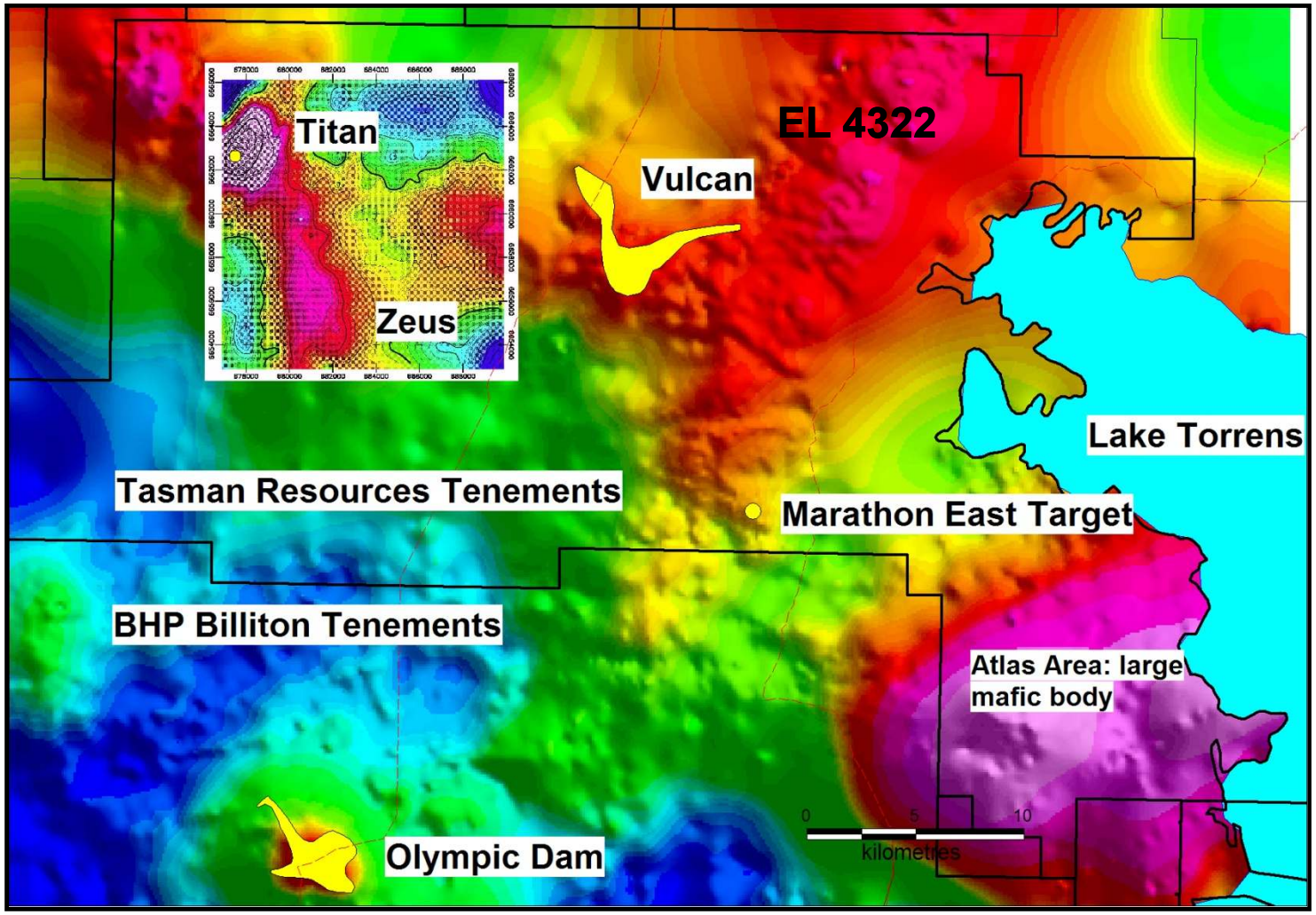
Lake Torrens (1,803 km^2)
IOCGU

Lucas Hill (264 km^2)
IOCGU

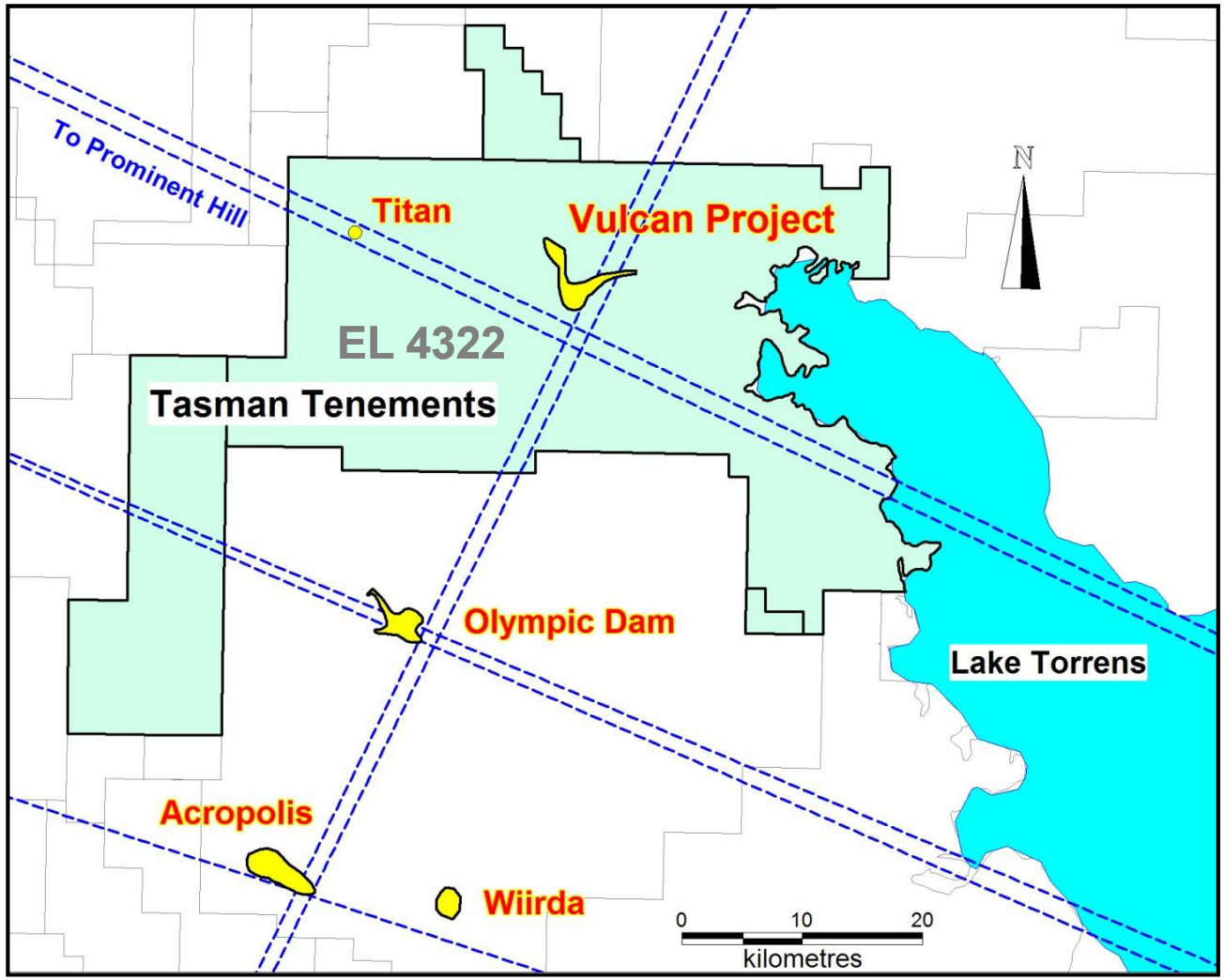
Parkinson Dam (194 km^2)
Epithermal Au, Ag, Zn/Pb

Central Gawler (447 km^2)
Au

Lake Torrens Project
Bouguer Gravity (+residual insert)



Lake Torrens Project
Showing Tectonic Lineaments (WMC, 1975)



Vulcan - Summary

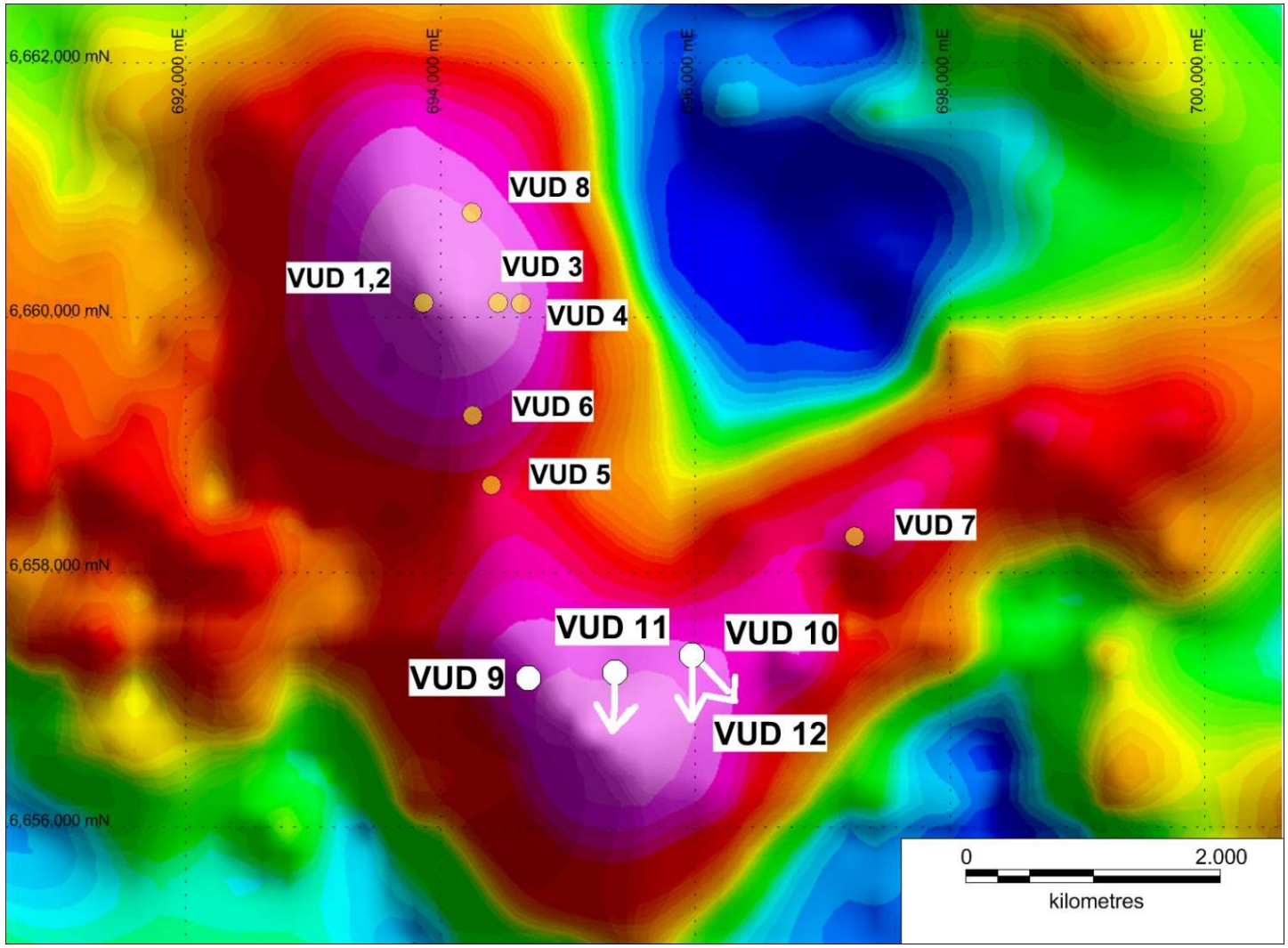
- Large hematite-dominent IOCGU system (~ 12km^2) 30km north of Olympic Dam
- Hosted by granite, volcanics and metasediments(?)
- 12 holes drilled:
  - Very thick & strong alteration, inc.100's metres of hematite breccias; intense sericite and carbonate alteration
  - Very thick, low grade IOCGU mineralisation (Cu, U, Au, Ag, Mo, REE)
  - Narrower, high grades locally
  - Early days; currently drilling ~ 10 hole program
- Mineralisation dated at 1590my by Re-Os (PACE 2020)
- Tasman–Rio Tinto Farm-In/JV Agreement commenced Sept 2012

Vulcan IOCGU Discovery

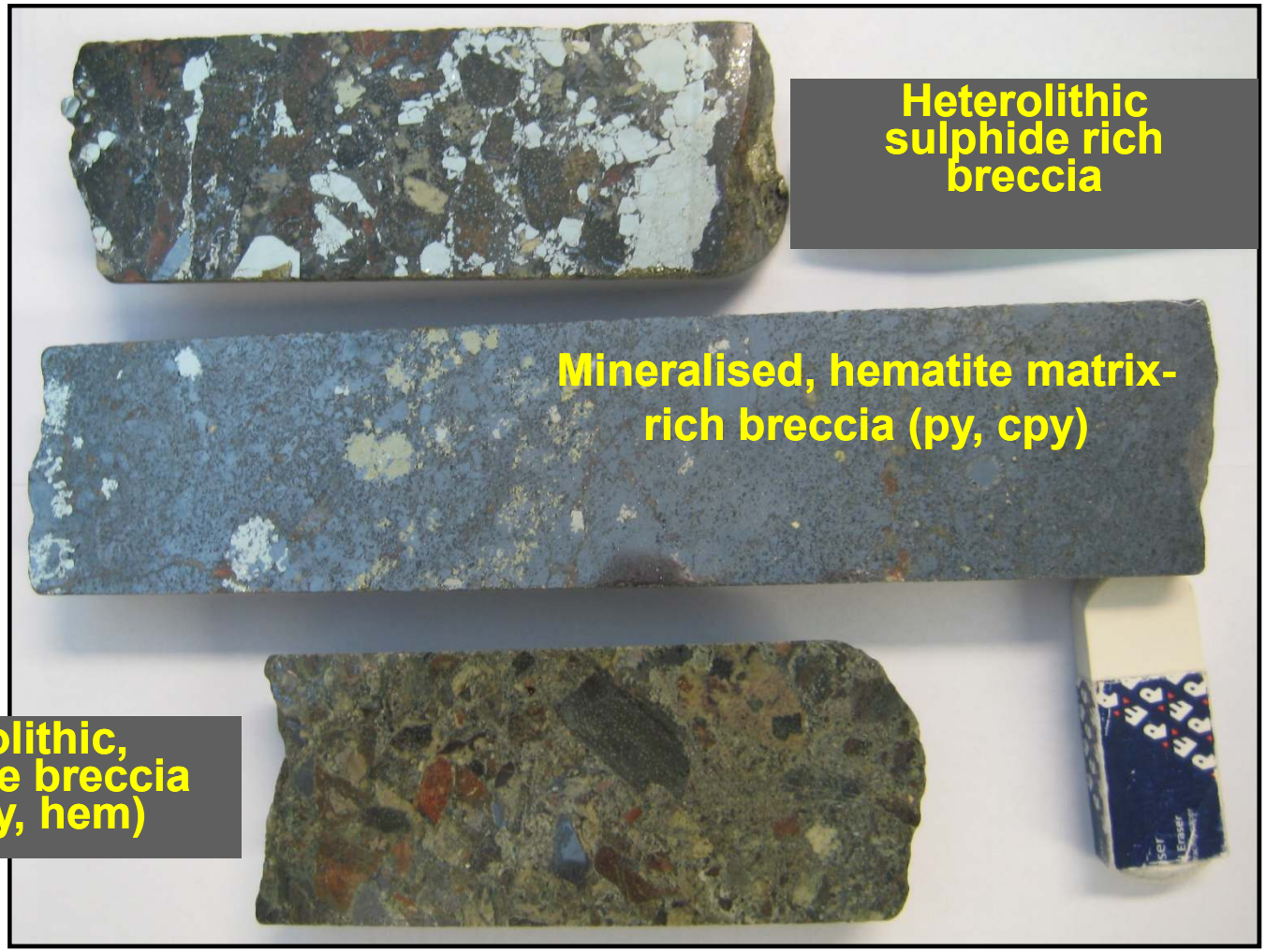
- 1981 WMC: first hole – SHD 1; barren, off - structure
- 2009 Tasman reinvestigation:
  - New gravity data
  - Geophysical remodelling
  - Tectonic data synthesis
  - GA seismic reinterpreted
- 2009 Tasman drills VUD 1 at north – hits Vulcan IOCGU system
- 2010 Further gravity, modelling, 4 further holes (at north)
- 2011 Further 3 holes (north and east)
- 2011 (Oct) Conditional Tasman-Rio Tinto Farm-In/JV Agreement announced
- 2012 (Sept) Drilling resumed – (at south); Tasman managing

Vulcan IOCGU Project

Residual Gravity Image showing drilling completed

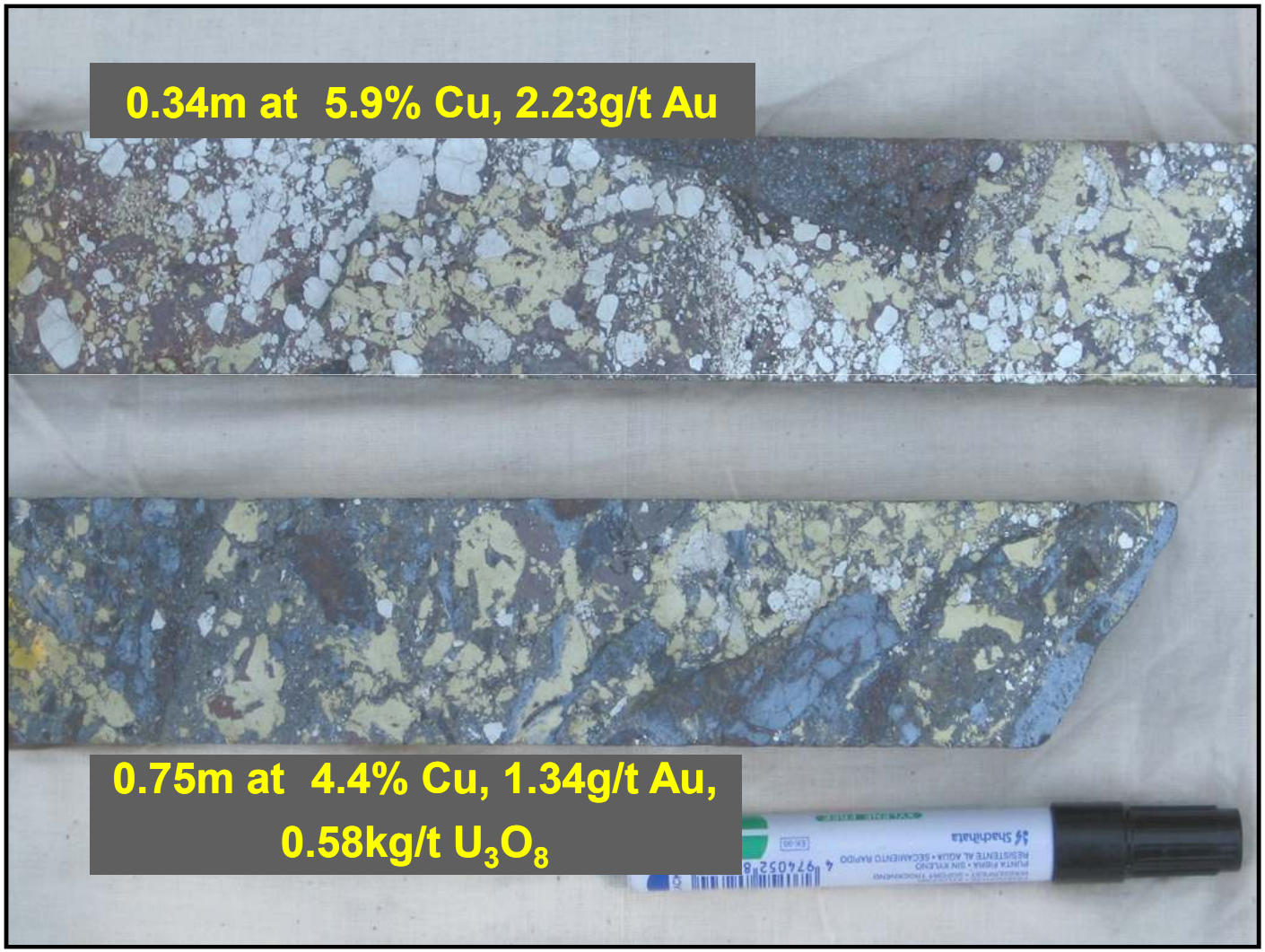


VUD 1: Mineralised Breccias



VUD 7: +160m of Mineralised Hematite Breccia

VUD 3: High Grade Cu - Au - U_3O_8

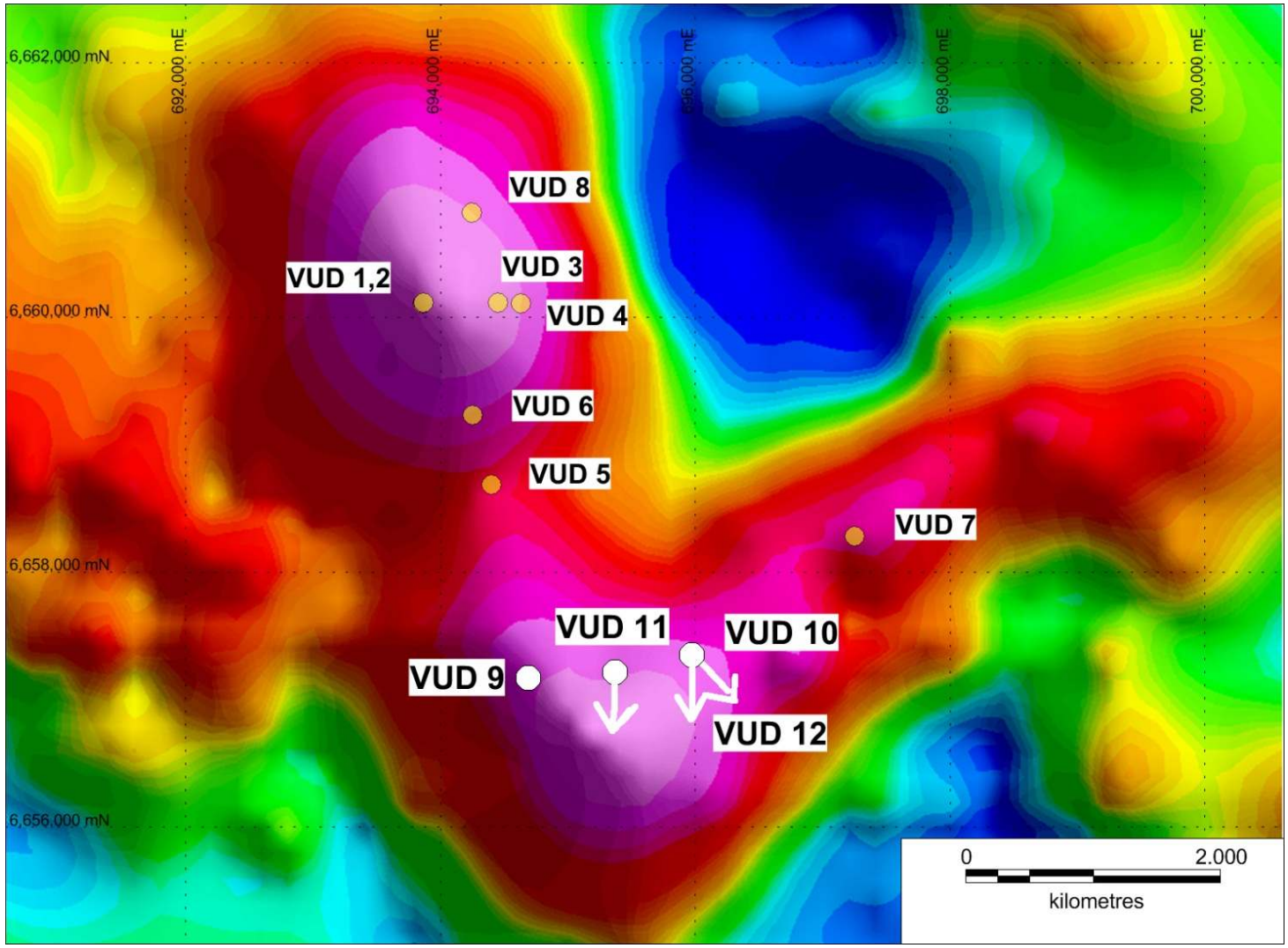


VUD 8: Silica-Hematite Breccia

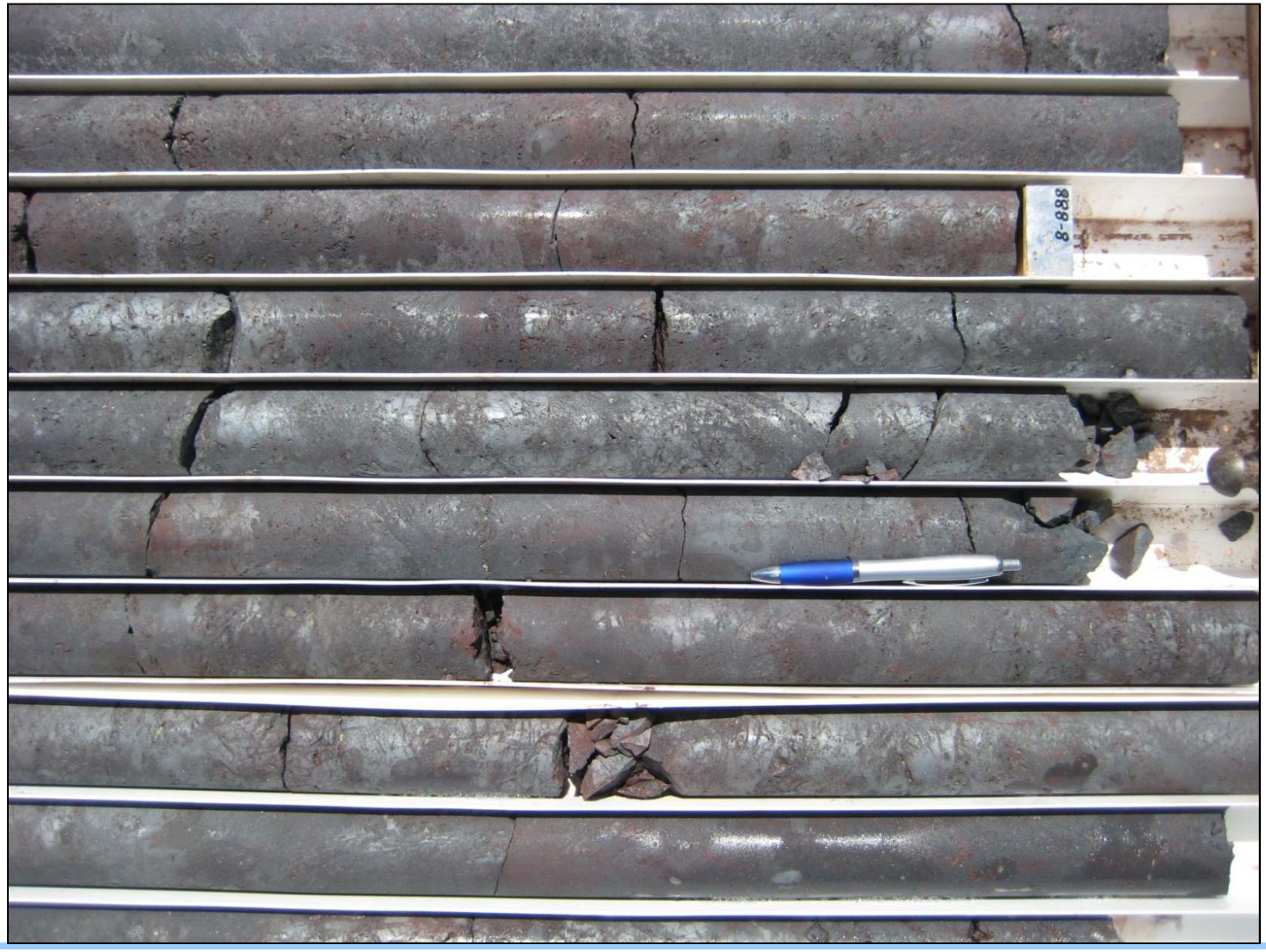
(+ bornite - chalcopyrite)

Vulcan IOCGU Project

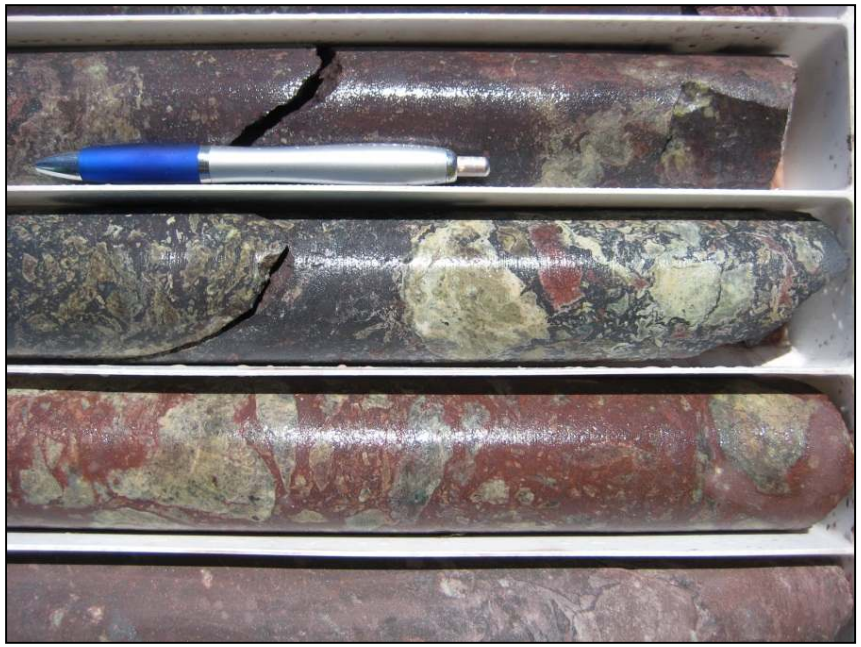
Residual Gravity Image showing drilling completed

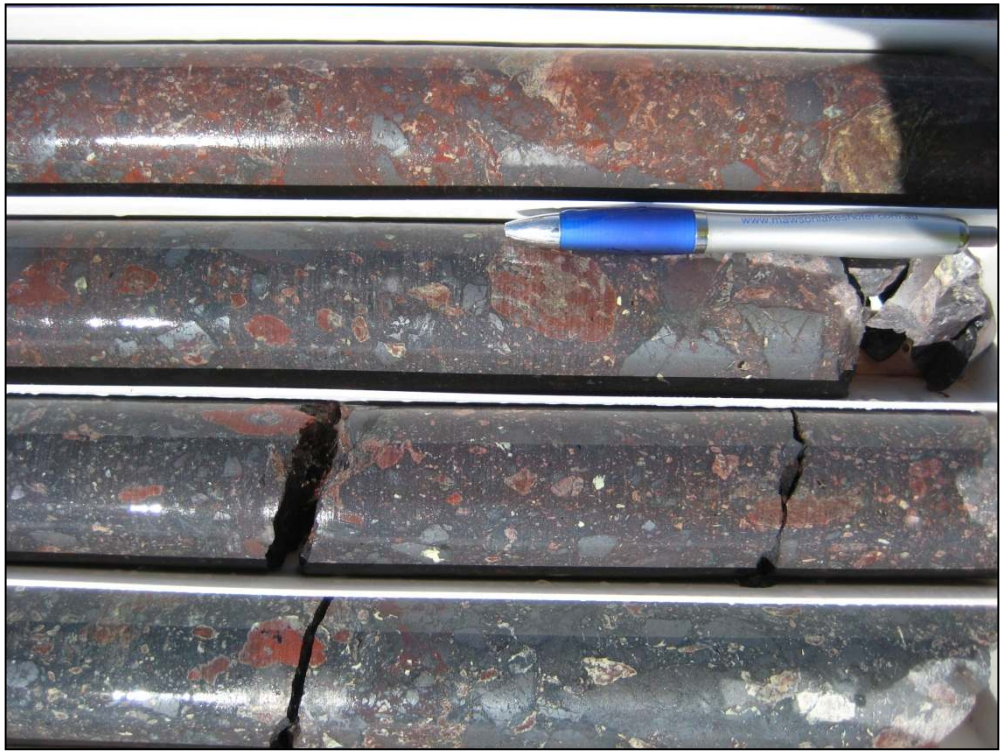


VUD 9: 242m intersection of hematite breccia



VUD 9: complex, multiphase breccias



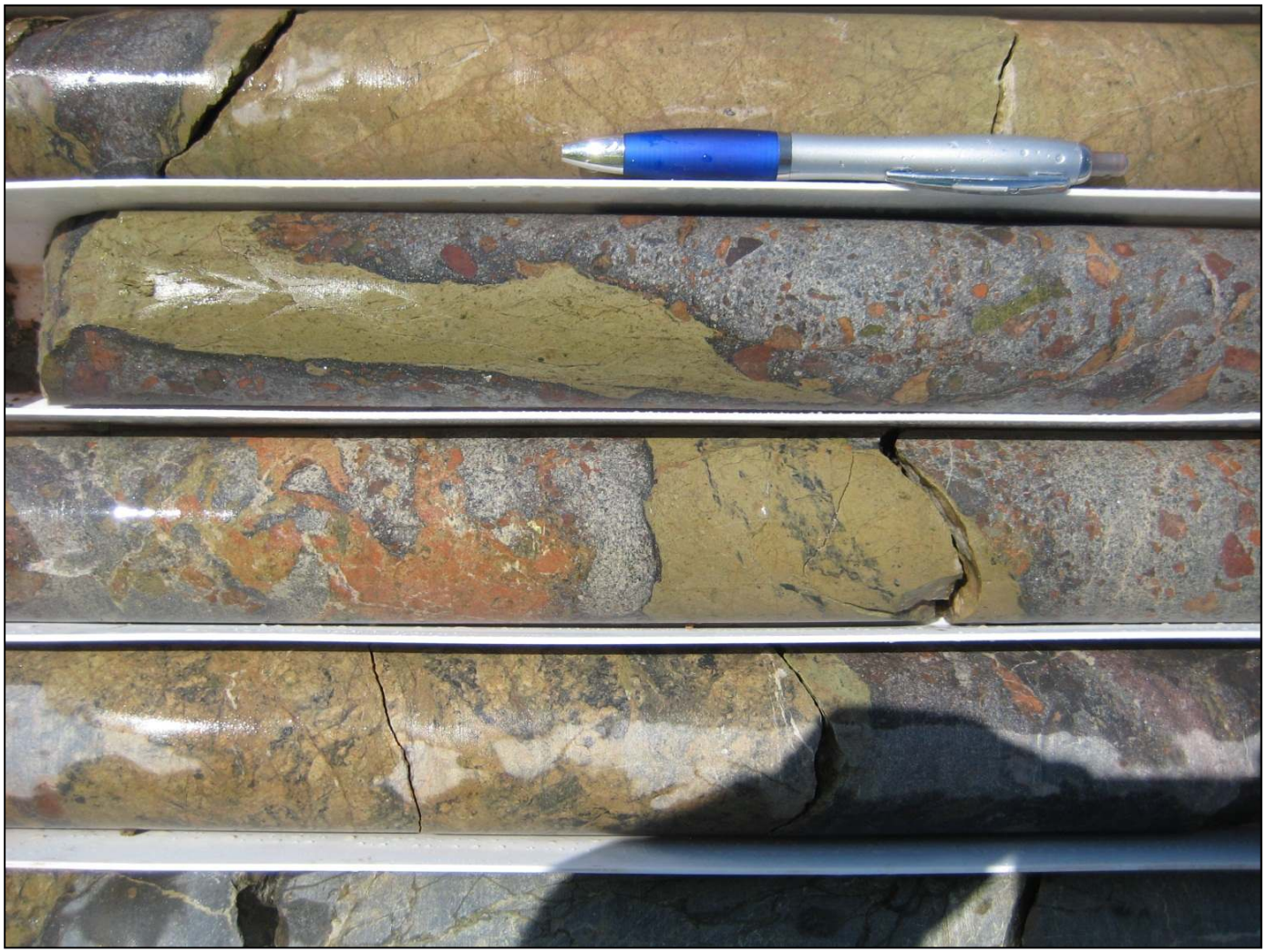


VUD 10: intense sericite-carbonate alteration

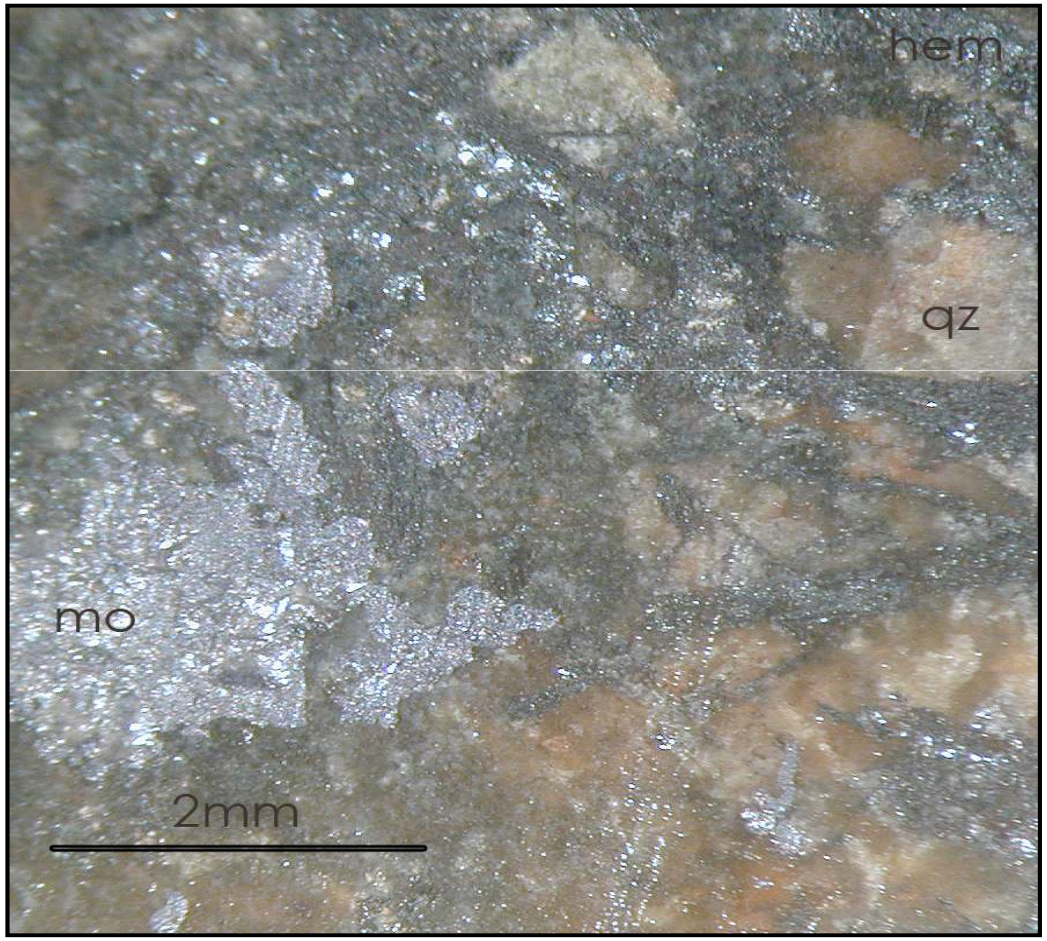
VUD 11: Hematite matrix-rich breccias

VUD 11: Breccia – alteration styles

VUD 11: Late-stage dykes



Vulcan Geochronology
Re^{187} - Os^{187} in MoS_2 (PACE* 2020)

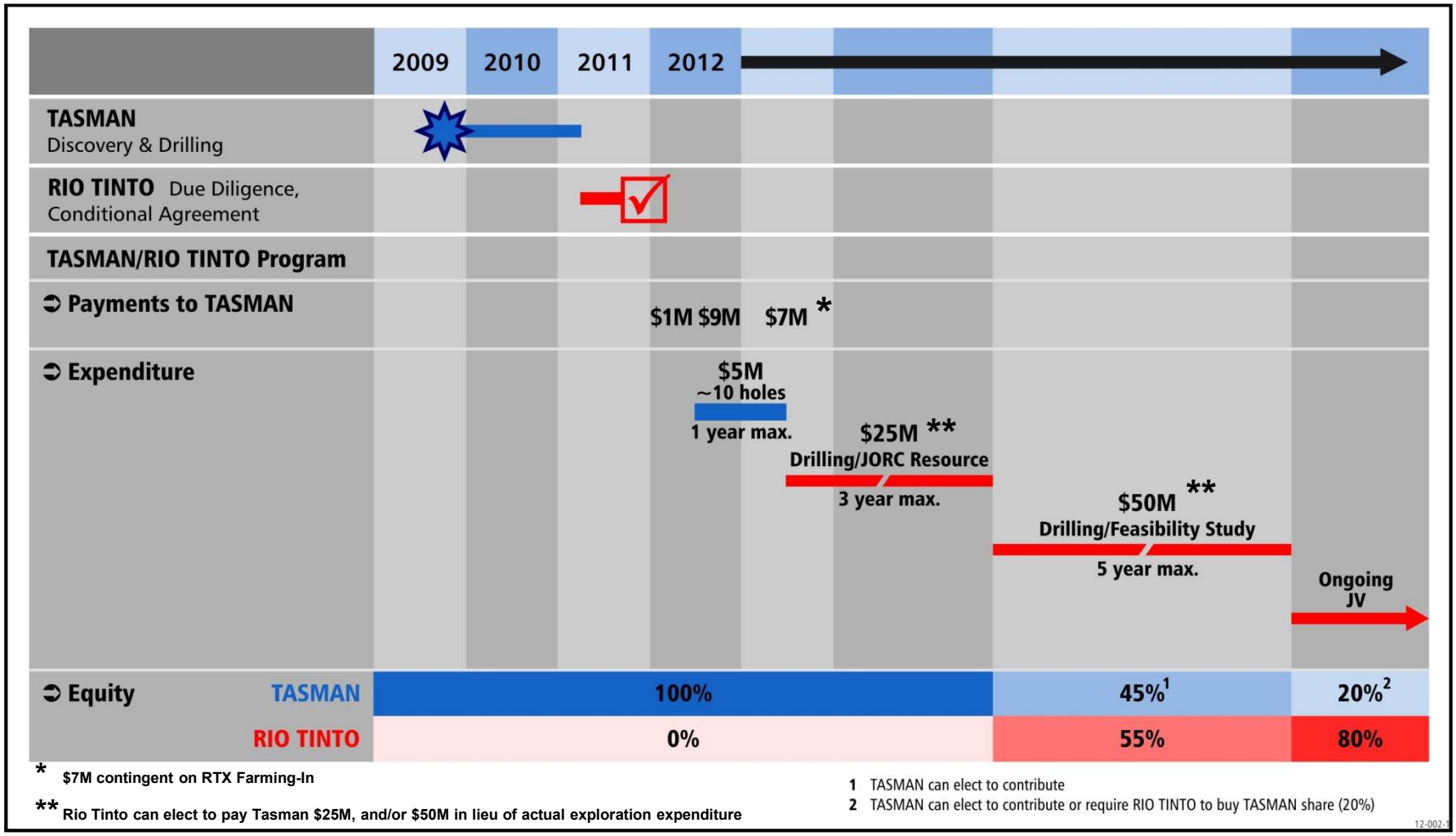


MoS_2 (grey) in VUD 001

- **MoS_2 (molybdenite) widespread at Vulcan - ideal for direct dating of mineralisation**
- **4 samples from 3 holes - average age 1590 Ma**
- **1590 Ma consistent with age of GRV and nearby IOCGU systems**

* Program for Accelerating Exploration, funded by SA Government

Vulcan Project: Time Line



Competent Person's Statement

The information in this presentation that relates to Exploration Results and Activities is based on information compiled by Robert Smith and Michael Glasson who are Members of the Australian Institute of Geoscientists.

Robert Smith and Michael Glasson are full-time employees of the Company. Robert Smith and Michael Glasson have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Robert Smith and Michael Glasson consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.