

1985/11. Geological compilation map of the Mount Read Volcanics, Que
River to Mt Darwin

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INTRODUCTION

The accompanying 1:100 000 scale map of the Mt Read Volcanics from Que River to Mt Darwin, western Tasmania, has been produced in response to requests from company geologists and others for a single compilation map showing the major stratigraphic divisions of the volcanics and associated sequences, and the major mines and prospects within the volcanics.

The compilation is based largely on the author's own mapping south of Rosebery, but includes important contributions from Green (1983), Collins (*in* Collins *et al.*, 1981) and Brown (1983) north of Rosebery (with modifications based on reconnaissance traverses by the author in some areas), and from Comstaff Pty Ltd and Aberfoyle Exploration Pty Ltd for The Pinnacles and Que River areas respectively. The latter contributions are gratefully acknowledged.

DESCRIPTIVE NOTES

Descriptions of the major volcanic units may be found in the references listed on the map and will not be reiterated here. Further descriptions of the Rosebery area are contained in Green, Solomon and Walshe (1981), and brief descriptions of the Que River Mine - Hellyer prospect area are given in Wallace (1984) and Sise and Jack (1984). Copies of the Departmental Unpublished Reports referred to on the map may be obtained on application to the Department.

The following notes are added for clarification:

- (1) Most of the lenses of rhyolite-dacite shown within the Que River andesite sequence are actually altered pyritic andesites (J.R. Sise, pers. comm.).
- (2) The belt of unassigned felsic volcanic rocks extending northwards from Mt Murchison on the eastern side of the Henty Fault consists largely of rocks in which quartz phenocrysts are common and obvious. These rocks are more akin to the Tyndall Group correlates of the Gooseneck and Lake Selina-Lake Dora areas (and have a similar relationship to the Sticht Range Beds as the latter sequence) than to the feldspar-phyric rocks of the Central Volcanic Sequence at Red Hills.
- (3) The term "western sequence" has not been used for volcano-sedimentary sequences lying west of the main Central Volcanic Sequence. Mapping has now shown that the volcano-sedimentary sequence to the north and west of the Henty Fault is younger than the Central Volcanic Sequence and overlies it, whereas that to the south of the Henty Fault is partly older than, and partly coeval with, the Central Volcanic Sequence and interfingers with it. The two "western sequences" cannot, therefore, be correlated, and use of the term may be confusing.

REFERENCES

The accompanying map contains a list of references. Additional references are given below.

GREEN, G.R.; SOLOMON, M.; WALSH, J.L. 1981. The formation of the volcanic-hosted massive sulfide ore deposit at Rosebery, Tasmania. *Econ.Geol.* 76:304-338.

SISE, J.R.; JACK, D.J. 1984. Exploration case history of the Hellyer deposit, in BAILLIE, P.W.; COLLINS, P.L.F. (eds.). *Mineral exploration and tectonic processes in Tasmania*. 48-49. Geological Society of Australia (Tasmanian Division) : Hobart.

WALLACE, D.B. 1984. Developments in the geological understanding of the Que River deposit, in BAILLIE, P.W.; COLLINS, P.L.F. (eds.). *Mineral exploration and tectonic processes in Tasmania*. 55-56. Geological Society of Australia (Tasmanian Division) : Hobart.

[7 March 1985]



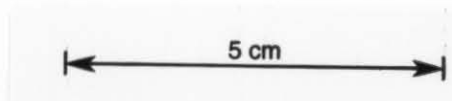
GEOLOGICAL SURVEY OF TASMANIA

GEOLOGICAL COMPILATION MAP OF THE MOUNT READ VOLCANICS QUE RIVER TO MT. DARWIN

Compiled by K. D. Corbett B.Sc. Ph.D.
1984

0 2 4 6 8 10 KILOMETRES

SCALE 1:100 000



REFERENCE

TERTIARY - QUATERNARY

Tertiary basalt (Tb), Tertiary sediments (Ts),
Pleistocene moraine (Qpm)

Unconformity

LATE CARBONIFEROUS - JURASSIC

P-J Permian Supergroup, Jurassic dolerite

Unconformity

LATE DEVONIAN

Dg Granite

SILURIAN - EARLY DEVONIAN

S-D Eldon Group undifferentiated

Conformity, ?disconformity

ORDOVICIAN

Gd Gordon Limestone Subgroup

Unconformity, disconformity, conformity

LATE CAMBRIAN - EARLY ORDOVICIAN

Ow Owen Conglomerate and correlates

Unconformity, disconformity

CAMBRIAN - ?EOCAMBRIAN

NORTH AND WEST OF HENTY FAULT ZONE

Dundas Group and correlates, including "Rosebery Group" (Middle to Late Cambrian)-greywacke, siltstone, mudstone, conglomerate, tuff
Major felsic tuff unit
Quartzwacke-quartzite-mudstone
Conglomerate
Basaltic volcanics
Andesitic volcanics
Lower volcano-sedimentary sequence, Howards Road area
Major felsic tuff unit
Disconformity, ?unconformity
Central Volcanic Sequence - rhyolitic to dacitic volcanics, mainly feldspar-phyric
Andesitic volcanics
Quartz-phyric volcanics
Shale-siltstone horizons
Crimson Creek Formation - mafic lithicwacke, mudstone - unfossiliferous
Success Creek Group - mudstone, quartzite, dolomite, mixite (?Eocambrian)

SOUTH AND EAST OF HENTY FAULT ZONE

Tyndall Group and correlates - (late Middle to Late Cambrian) - mainly quartz-feldspar-phyric volcanics and volcanoclastic conglomerates
Sticht Range Beds - quartzwacke, siltstone, siliclastic conglomerate
Unconformity, ?disconformity
Central Volcanic Sequence - rhyolitic to dacitic volcanics, mainly feldspar-phyric
Andesitic volcanics and intrusives
Shale-siltstone horizons
Volcano-Sedimentary Sequence - greywacke, siltstone, felsic tuff
Mainly felsic tuff
Basaltic volcanics (tholeiitic variety VSbr)
Quartzwacke-siltstone

UNASSIGNED CAMBRIAN UNITS

Felsic volcanics
Sedimentary units, including Farrell Slate
Volcano-sedimentary sequence

CAMBRIAN INTRUSIVE ROCKS

Granite
Felsic porphyry - mostly quartz-feldspar-phyric
Gabbro
Ultramafic rocks and serpentinite
Unconformity

PRECAMBRIAN

Osnah Formation correlate
Concert Schist
Metamorphosed Precambrian of Tynenian region

Geological boundary - approximate
Fault - approximate
Bedding - facing known, overturned
Trace of anticline, syncline
Cambrian fossil locality
Mine, Prospect

SOURCES

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- Aberfoyle Exploration Pty Ltd. mapping.

CARTOGRAPHY BY J.H. CLARKE, D.M. HARDY AND A.J. HOLLOCK