Mineral Resources Tasmania
Tasmanian Geological Survey
Record 2003/13

Western Tasmanian Regional Minerals Program
Devonian Granite Aureoles Project

Regional map set and geophysical signatures of major deposits

K. C. Morrison[1], A. R. Reed[2] and N. J. Turner[3]

CONTENTS

Summary … 2
Introduction … 2
Scope of the project … 2
Acknowledgements … 3
Regional map set … 3
Geophysical signatures of major deposits … 5
References … 6

Tables

1. Characteristics of main deposits … 8

Figures

1. Location map … 4
2. Dolphin, Bold Head; total magnetic intensity … 10
3. Mt Bischoff; resistivity … 11
4. Mt Bischoff; radiometric image, potassium … 12
5. Kara; total magnetic intensity … 13
6. Kara; radiometric image, thorium … 14
7. Moina; radiometric image, thorium … 15
8. Moina; total magnetic intensity … 16
9. Moina; resistivity … 17
10. Renison Bell; resistivity … 18
11. Renison Bell; radiometric image, uranium … 19
12. Comstock, Sylvester, Queen Hill; total magnetic intensity … 20
13. Comstock, Sylvester, Queen Hill; resistivity … 21
14. Cleveland and Magnet; total magnetic intensity … 22
15. Cleveland and Magnet; resistivity … 23

Maps

1. Pre-Carboniferous geology and mineralisation
2. Total magnetic intensity and major deposits
3. Residual gravity and major deposits
4. Radiometric ternary and major deposits
5. Uranium and major deposits
6. Airborne electromagnetics and mineralisation

1 K. C. Morrison Pty Ltd, 41 Tasma St, North Hobart, Tasmania 7000
2 EarthSearch, 50 Queen St, Bellerive, Tasmania 7018
3 N. J. Turner Geological Services Pty Ltd, 65 Lochner St, West Hobart, Tasmania 7000

Summary

This report covers six 1:250 000 scale maps depicting the economic geology and geophysics of the mineralised Devonian granite aureoles in western Tasmania, and includes an atlas-style set of geophysical images over the main granite-sourced deposits discovered to date.

The distribution of mineral occurrences around granite batholiths shows clear evidence of metal zonation and of tin or tungsten predominance in some granites, but there is no correlation between granite type and either tin or tungsten. Major tungsten deposits tend to occur <1 km from the margin of the main body of their source granites, whereas major tin deposits are more distal from the main batholiths, but occur <1 km from fault-controlled porphyry or granite dykes connected to the main granites.

Large ore bodies of skarn-hosted or massive sulphide-hosted tungsten and tin have formed where thick carbonate host units are connected to source granites by major syn-intrusion faults and the host rocks have been fractured by the intruding granite. Airborne EM and radiometrics detect the massive mineralisation and alteration, and magnetics and radiometrics track the major faults. Carbonate-replacement style also appears the best prospect for a granite-sourced base metal ore body, but discoveries to date have been generally low grade.

The observations in this work are based on comparisons with known deposits but there is also exploration potential for endogranite gold stockwork systems below shallow cover and for massive carbonate-hosted deposits, more distal from the main batholiths than has previously been considered prospective.

Introduction

In the period 2000–2002 Mineral Resources Tasmania (MRT) acquired a substantial body of new aerial geophysical data as part of its Western Tasmanian Regional Minerals Program (WTRMP). Together with MRT's existing databases these new data have been utilised in several thematic projects that aim to highlight mineral exploration opportunities in western Tasmania. Both MRT personnel and independent geologists and geophysicists have participated in the generation and execution of the projects.

This report is part of a series relating to a thematic project that deals with the prospectivity of the Devonian granite aureoles in western Tasmania, which are widely recognised for world-class tin and tungsten deposits and also contain significant occurrences of other metallic and industrial commodities. The work that has been carried out illustrates the regional setting of known granite-related mineralisation against the backdrop of MRT's new and existing data. It also illustrates the setting and geophysical features of selected occurrences of granite-related mineralisation at a more local scale.

The results of the December 2002 to April 2003 round of work on the Devonian Granite Aureoles Project are presented in four reports. A set of 1:250 000 scale maps of the economic geology and geophysics of the granite aureoles has been produced, and an atlas-style set of geophysical images and tabulated information summarising the prospect-scale signatures of the main deposits discovered to date is included in this report.

Scope of the project

This project is intended to stimulate exploration for granite-related deposits in western Tasmania and not to be the initial round of an exploration program. The maps and images produced are, to a large extent, stand-alone products, which have not been heavily interpreted for the purpose of anomaly identification or target ranking. The overall interpretation of the WTRMP magnetic, radiometric and electromagnetic (EM) surveys is covered in separate reports (Leaman and Webster, 2002; Reid, 2003; Leaman, 2003; Leaman and Richardson, 2003) whereas the current project deals with the geophysical responses of individual ore bodies and their structural and stratigraphic settings.

A central concept to the scope of the project is the 'granite aureole'. The term is not used here in the sense of a contact metamorphic aureole. Rather, we have considered the distribution of those mineral deposits and occurrences from the Mineral Resource Location and Characterisation (MIRLOCH) database which are likely to have formed from granite-sourced fluids (or at least have required a granite heat source), and then assigned the 4 km isobath (Leaman and Richardson, 2003) as a subjective limit to prospectivity. Thus the aureole is essentially a recommended zone of exploration surrounding or overlying a granite intrusion. The evidence from MIRLOCH suggests that the 4 km limit is, in general, conservative, because most of the major deposits discovered to date are located less than one kilometre from their source granites. The possibility of structurally-controlled long distance fluid migration is considered, particularly if the timing of faulting between a granite and a major carbonate body can be shown to facilitate migration. This scenario is discussed in the third report (Turner *et al.*, 2003*b*).

Selection of the areas for prospectivity reviews has been driven by judgements on the prospectivity of those commodities which are predicted to attract the most exploration interest under current market conditions. If the economic geology of previously discovered ore bodies was the only consideration, then prospects for further tin and tungsten discoveries would dominate the study. The negative sentiment which continues to prevent investment in tin exploration in Tasmania cannot be ignored, despite the obvious potential for more discoveries of carbonate-hosted and greisen tin deposits in western Tasmania. Timing is the key issue and, whereas a revival in tin exploration will probably occur in the future, there currently appears, for strategic reasons, to be a renewed interest in tungsten. King Island is the predominant tungsten district in Tasmania, hence its promotion in the second report (Turner *et al*., 2003*a*).

The Balfour and Moina areas both combine relatively untested ideas for deposit formation, with potential for metal commodities which are currently attracting exploration investment. The coincidence of tin and copper at Balfour is well known but a genetic link has not been proven (although the precedent for a granite-sourced tin/copper ore body is established at Cleveland). Balfour is a site of major structural intersections and despite the presence of tin greisen vein mineralisation, no granite outcrop is recorded. Report 3 (Turner *et al*., 2003*b*) considers the potential significance of the structural trends in connecting subsurface granite to host lithologies.

The area around Moina and the Dolcoath Granite provides the best opportunity for granite-related gold mineralisation, in addition to the substantial tonnage of fluorite and tin/base metal skarns previously discovered. The apparent gold-bismuth correlation and the potential for establishing a gold-tungsten link, combined with the fact that a substantial area of the Dolcoath Granite is subsurface at shallow depth, enhance the prospect for a granite-hosted gold target. This idea is developed in the fourth report (Morrison *et al*., 2003).

Acknowledgements

The project was supervised and co-ordinated by MRT Managing Geologist Dr Geoff Green, and in some respects the work was a collaborative effort between the authors and MRT staff. In particular, we wish to thank Mr Ken Bird and Dr Robert Richardson for their skills and efforts in crafting the six 1:250 000 scale maps. Other MRT people readily contributed their time and knowledge towards solving particular problems. Dr David Seymour, Dr Geoff Green, Mr Michael Dix, and Dr Marcus McClenaghan are thanked in this regard.

Allegiance Mining NL and Jervois Mining Ltd kindly made available company data. Consultants Mr Alan Fudge and Mr Gerald Purvis generously shared their expertise on King Island and the Moina area respectively.

Geophysical consultant Dr David Leaman modelled the granite isobaths for the region; the results of that work are contained in separate reports (Leaman, 2003; Leaman and Richardson, 2003).

Regional map set

Maps 1 to 6 (fig. 1) show the geology, MIRLOCH locations and selected geophysical data for granite aureoles inside the WTRMP area. Where MIRLOCH data and geology indicate that granite-related mineralisation may extend outside the 4 km isobath, the 'aureole' has been extended to cover those prospective areas. For example, the model indicates that the Heemskirk and Renison granites are connected at 9 km depth (Leaman and Richardson, 2003) but at the 4 km isobath they appear disconnected (Map 1). The base metal and nickel sites at Heazlewood, west of Cleveland, have also been included because of their possible fault connection to the northern side of the Meredith Granite.

The new gravity-magnetics modelling by Leaman and Richardson (2003) shows important developments in understanding the form of some batholiths. The Proterozoic granites on King Island are apparently not contributing to the form of the model, suggesting that they are not deep-rooted plutons. The model indicates that King Island is entirely underlain by Devonian granite. The Beulah–Sheffield area (the easternmost aureole on Map 1) is an enigma. Outcropping intrusive rocks previously thought to be granites are now identified as Cambrian andesite and no Devonian granite has yet been identified in the field (Corbett and McClenaghan, 2003). In addition, no tin or tungsten MIRLOCH sites (i.e. the most likely to be granite sourced) occur within the 4 km isobath. Nevertheless, the evidence from modelling is that a large subsurface granite exists.

Devonian structural control of granite form is evident beneath the northern end of the Henty Fault, around the Rosebery Fault, and across the neck area which divides the Heemskirk and Renison granites. MIRLOCH sites are strongly aligned along these fault trends. The complex shelved form of the Housetop Granite implies Devonian thrust deformation. Interpretation of the isobaths around the Housetop Granite is aided by the section depicted in Leaman and Richardson (2003).

Broad scale classification of granite types on Map 1 uses the current work of McClenaghan (in prep.).

- *I type:* Meredith, Grassy and Sea Elephant granites.
- *I type crystal fractionated:* Housetop, Dolcoath, Renison and eastern Heemskirk (red granite).
- *S type crystal fractionated:* Interview, western Heemskirk (white granite) and Granite Tor.

Radiometrics (Maps 4 and 5) confirm the subdivision of the Heemskirk Granite and support possible fractionation of the Meredith Granite into two or three rock types, but not to the extent indicated by Camacho (1987) on geochemical grounds.

MIRLOCH data clearly indicate a pattern of granites sourcing predominantly either tin or tungsten. The Heemskirk, Renison and Meredith (and possibly Sea Elephant) granites are tin prone and the Interview and Grassy granites are tungsten prone. The Housetop Granite shows a tin predominance in the east and the group of tungsten skarns at Kara in the west. Around the Dolcoath Granite, tungsten sites occur at the

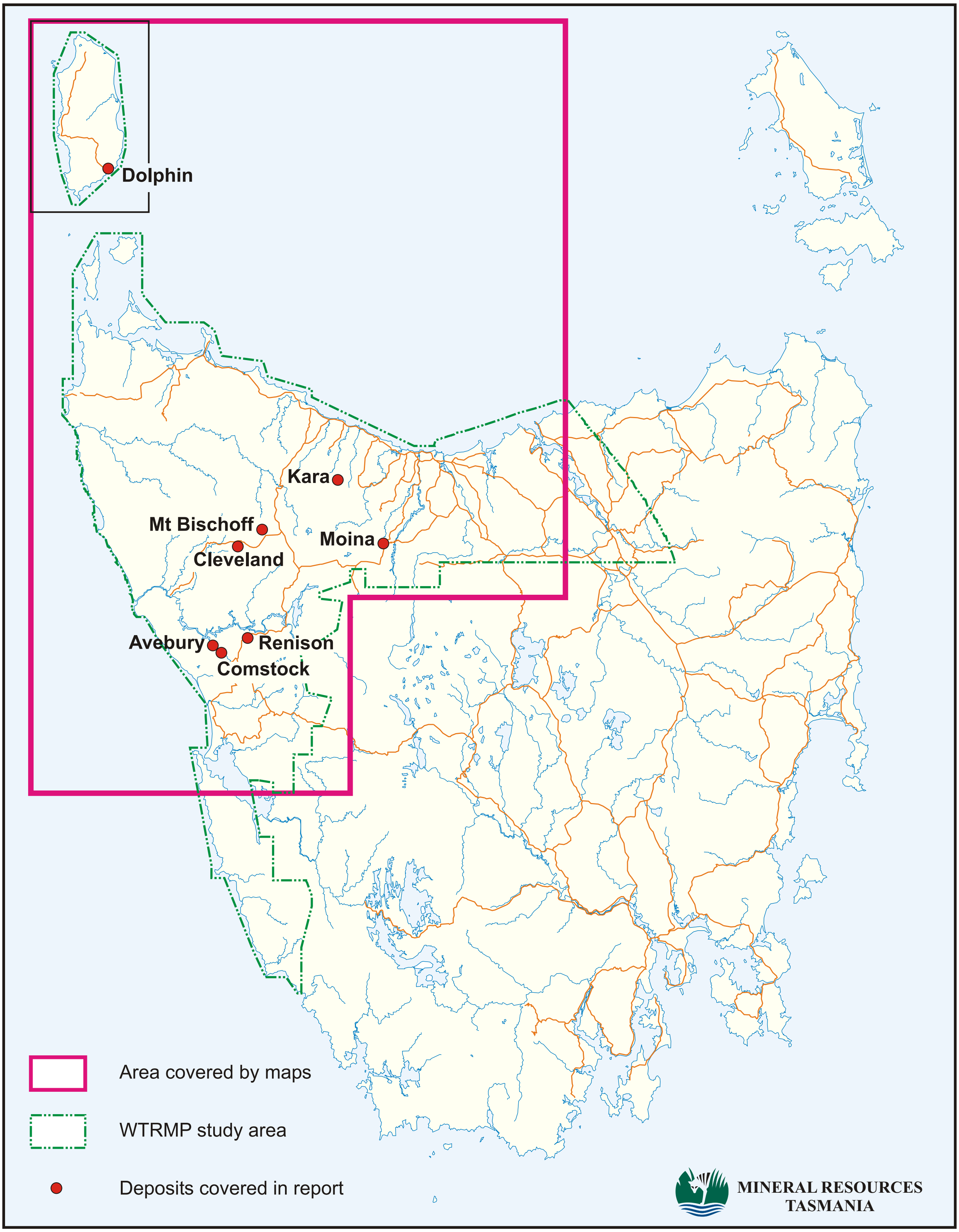


Figure 1

Location map showing area covered by Maps 1 to 6 and the eight deposits discussed in the report.

granite margin and tin mineralisation is more distal. In the Cleveland mine, the tungsten enriched Foley Zone is a stockwork system close to a granitic porphyry below the main mine workings, whereas the tin and tin-copper ore lenses replaced limestone, above and more distal from the granite. Zonation could also explain the tin occurrences at Balfour if the modelled subsurface granite at Balfour is really part of the Interview Granite (Map 1).

In general, metal zonation around Tasmanian Devonian granites is well established (e.g. Collins *et al.*, 1989). Kitto *et al.* (1997) interpreted an intermediate copper zone around the tin mineralised Renison Granite, and an outer silver-lead-zinc zone. One of the main prospects in the copper zone is the Colebrook Hill skarn, which also contains significant tungsten.

Despite the consistent picture of metal zonation there is no evidence of a correlation between granite type and metal predominance, at least not at the broad scale of granite classification used in this project.

Assigning mineralisation occurrences to a granite-related origin is inevitably subjective, with greatest confidence for tin and tungsten and least confidence for gold and some base metal sites, particularly where major faults cutting through Cambrian volcanic rocks are involved. The gold-tin-copper mineralisation at Lakeside has a Devonian signature (Taheri and Green, 1990) but its prospectivity is due more to its location on the Henty Fault than the fact that it falls inside the one kilometre isobath on a spine of granite modelled beneath the Henty Fault.

Most of the base metal shows east of the Heemskirk Granite are structurally-controlled quartz veins and are generally small. The largest silver-lead-zinc deposits of this type in the study area are Magnet and Mt Farrell and both contain less than one million tonnes, with Magnet having the higher zinc grade of 7.3% (Green, 1996). The Sylvester carbonate replacement skarn has a resource of 6 million tonnes and although the overall zinc grade is only 5.5% (Crossing, 1992*a*), the resource is large enough to potentially contain a smaller ore body.

The inclusion of nickel sites, hosted in Cambrian serpentinite and mafic volcanic rocks, is a consequence of the recent exploration success of a new style of granite-related deposit at Avebury (Allegiance Mining, 2003). The role of Devonian granite at Avebury, and other similar nickel prospects nearby, appears to have been as a heat source for remobilisation of nickel and metasomatism of the host rocks, rather than as a primary source of metal. The magnetite skarns at Kara and around the Heemskirk Granite may have a similar origin, if the iron was stripped from Cambrian mafic and ultramafic rocks overlying the intruding granites.

The pre-Carboniferous geology on Map 1 has been simplified into seven host rock associations, in addition to the Proterozoic and Devonian granites, to show the major relationships between stratigraphy and MIRLOCH data. The link between larger deposits and thick dolomite and limestone, in the Neoproterozoic and Ordovician respectively, is shown in Table 1 and discussed below.

Geophysical signatures of major deposits

Table 1 summarises the geological and geophysical characteristics of the eight known deposits which are considered most likely to contain ore bodies under present day economic parameters. Bold Head/Dolphin, Mt Bischoff and Cleveland have all been major mines that are now closed. Renison and Kara are operating mines and Avebury is a new discovery moving towards mine development. The Sylvester and Moina skarns are currently classed as sub-economic, predominantly because of the low grade at Sylvester and difficult metallurgy combined with a restricted market for fluorite at Moina. The reader is referred to Green (1996) for an overview of all Devonian granite-related deposits in Western Tasmania.

The eight deposits in Table 1 span an impressive range of metallic and industrial mineral commodities. Geologically, the Avebury nickel deposit contrasts with the other deposits in that it is hosted in serpentinite and appears to have formed due to remobilisation and concentration of primary nickel, as a result of heating and deformation of the host rocks caused by the intruding Heemskirk Granite (Allegiance Mining, 2003). Avebury and nearby similar prospects are currently being explored; for reasons of commercial confidentiality it was not appropriate to use the company data necessary to portray a useful geophysical signature for Avebury.

In contrast, the granite-sourced deposits share some important characteristics which can help focus further exploration.

- The development of large tonnages of massive mineralisation over widths suited to modern mechanised mining requires thick, homogenous carbonate-host rock units, even though stockwork systems, fracture fill vein lodes and greisen may comprise substantial parts of a resource. Replacement of carbonate by massive sulphide mineralisation at Mt Bischoff, Renison, Queen Hill and Sylvester produces strong conductivity and radiometric anomalies at each site. The response at Cleveland is less convincing, perhaps due to the attitude of the remaining sulphides and the smaller, discontinuous nature of the mineralised limestone lenses.
- The major deposits of tin, tungsten and iron occur less than one kilometre from the source granites, or at least dykes emanating from the main granite batholiths. Granite or porphyry occurs within the area of mine development at Bold Head/Dolphin, Mt Bischoff, Cleveland, Renison and Kara. The

Sylvester base metal skarn is probably the most distal of the main deposits, which is consistent with the general pattern of metal zoning around the granites, although previous exploration at Sylvester raised the possibility of an undrilled granitic dyke under the skarn system (Crossing, 1992*a*, *b*).

- Major deposits form where folded host rocks are fractured by granite intrusions, then metasomatised and mineralised by granite heat and late-stage fluids which are focussed by one or more major faults and/or fault-controlled dyke systems (e.g. Halley and Walshe, 1995; Kitto, 1992). Typically, the major faults are easily seen geophysically. At Kara the combination of radiometrics and magnetics show the importance of nearness to granite for the tungsten skarns and the fault control on the iron deposits. Magnetics clearly show the Grassy River Fault and its control on the positions of the Bold Head and Dolphin ore bodies. Thorium radiometrics traces the Bismuth Creek Fault at Moina, on which the two main skarn deposits are located, and suggests alteration along the fault and in shallow subsurface extensions of the Dolcoath Granite.

The included 14 images were selected as the best data for characterising the seven deposits described in Table 1 (i.e. excluding Avebury). As a guide to exploration this information is limited to analogues with known deposits, which are all located in the aureoles close to the source granites. Conceptually, variations on this style of target, such as endogranitic tungsten or gold-bismuth stockwork mineralisation and distal carbonate-hosted massive deposits connected to batholiths by faults, have potential in the study area and have attracted little exploration to date. Examples of these will be discussed in the third report (Turner *et al*., 2003*b*) and fourth report (Morrison *et al*., 2003).

References

ALLEGIANCE MINING. 2003. Review of operations, Tasmanian Nickel Project, *in: Allegiance Mining NL, Annual Report 2002*. 4–11.

BROWN, S. G. 1990. King Island scheelite deposits, *in:* HUGHES, F. E. (ed.). Geology of the mineral deposits of Australia and Papua New Guinea. *Monograph Serial Australasian Institute of Mining and Metallurgy* 14:1175–1180.

CAMACHO, A. 1987. *Geochemistry of some fractionated western Tasmanian granites*. M.Sc. thesis, La Trobe University : Melbourne.

COLLINS, P. L. F. 1981. The geology and genesis of the Cleveland tin deposit, western Tasmania: fluid inclusion and stable isotope studies. *Economic Geology* 76:365–392.

COLLINS, P. L. F. 1983. *Geology and mineralisation of the Cleveland mine, western Tasmania*. Ph.D. thesis, University of Tasmania : Hobart.

COLLINS, P. L. F.; WILLIAMS, E. 1986. Metallogeny and tectonic development of the Tasman Fold Belt System in Tasmania. *Ore Geology Reviews* 1:153–201.

COLLINS, P. L. F.; BROWN, S. G.; DRONSEIKA, E. V.; MORLAND, R. 1989. Mid-palaeozoic ore deposits, *in:* BURRETT, C. F.; MARTIN, E. L. (ed.). Geology and mineral resources of Tasmania. *Special Publication Geological Society of Australia* 15:270–292.

CORBETT, K. D.; MCCLENAGHAN, M. P. 2003. A review and interpretation of the Lower Palaeozoic geology of the Que River–Sheffield area, with particular reference to the Cambrian volcanic sequences. *Record Tasmanian Geological Survey* 2003/17.

CROSSING, D. J. F. 1992*a*. *EL 42/87, incorporating ML's 43M/85 and 123M/47 — Zeehan area. Annual report for the period Oct. 1991 to Sept. 1992*. RGC Exploration Pty Ltd [TCR 92-3386].

CROSSING, D. J. F. 1992*b*. *EL 42/87 Zeehan, partial relinquishment report for the period 1987 to 1992*. RGC Exploration Pty Ltd [TCR 92-3379].

DOUGLAS MCKENNA AND PARTNERS. 2003*a*. *Final report on Dolcoath EL 37/97 Tasmania for Jervois Mining Limited*. Douglas McKenna and Partners Pty Ltd [TCR 03-4846].

DOUGLAS MCKENNA AND PARTNERS. 2003*b*. *Final surrender report on Stormont EL 20/92 for Jervois Mining Limited*. Douglas McKenna and Partners Pty Ltd [TCR 03-4850].

GREEN, G. R. 1996. *in: Tasmanian–Commonwealth Regional Forest Agreement Background Report. Part D. Social and Economic Report Volume 111*. Tasmanian Public Land Use Commission.

GREEN, G. R. 2003. *Mineral exploration opportunities in Tasmania*. Mineral Resources Tasmania.

GROVES, D. I.; MARTIN, E. L.; MURCHIE, H.; WELLINGTON, H. K. 1972. A century of tin mining at Mount Bischoff, 1871–1971. *Bulletin Geological Survey Tasmania* 54.

HALLEY, S. W.; WALSHE, J. L. 1995. A reexamination of the Mount Bischoff cassiterite sulfide skarn, western Tasmania. *Economic Geology* 90:1676–1693.

KITTO, P. A. 1992. The geological and structural controls on mineralisation at the Renison tin mine. *Bulletin Geological Survey Tasmania* 70:97–117.

KITTO, P. A.; EVANS, D. A.; MROCZEK, C. R. 1997. Renison — new advances in the geological understanding of a world-class ore deposit, in DENWER, K.; *et al.* (ed.). Third International Mining Geology Conference. 31–40. *Publication Series Australasian Institute of Mining and Metallurgy* 6/97.

KWAK, T. A. P.; ASKINS, P. W. 1981. Geology and genesis of the F-Sn-W(-Be-Zn) skarn (wrigglite) at Moina, Tasmania. *Economic Geology* 76:439–467.

LEAMAN, D. E. 2003. The form of the King Island and Beulah granites. *Record Tasmanian Geological Survey* 2003/06.

LEAMAN, D. E.; WEBSTER, S. 2002. Quantitative interpretation of magnetic and gravity data for the Western Tasmanian Regional Minerals Program. *Record Tasmanian Geological Survey* 2002/15.

LEAMAN, D. E.; RICHARDSON, R. G. 2003. A geophysical model of the major Tasmanian granitoids. *Record Tasmanian Geological Survey* 2003/11.

MCCLENAGHAN, M. P. *in prep*. The geochemistry of Tasmanian Devonian–Carboniferous granites and implications for the composition of their source rocks.

MORRISON, K. C.; REED, A. R.; TURNER, N. J. 2003. Western Tasmanian Regional Minerals Program, Devonian Granite Aureoles Project. The Dolcoath Granite: A gold exploration target. *Record Geological Survey Tasmania* 2003/16.

PATTERSON, D. J.; OHMOTO, H.; SOLOMON, M. 1981. Geologic setting and genesis of cassiterite-sulfide mineralization at Renison Bell, western Tasmania. *Economic Geology* 76:393–438.

RANSOM, D. M.; HUNT, F. L. 1975. Cleveland tin mine, *in:* KNIGHT, C. L. (ed.). Economic geology of Australia and Papua New Guinea. *Monograph Serial Australasian Institute of Mining and Metallurgy* 5:584–591.

REID, J. 2003. Western Tasmanian Regional Minerals Program. Helicopter electromagnetic data (HEM) — processing, quality control and interpretation. *Record Tasmanian Geological Survey* 2003/09.

TAHERI, J.; GREEN, G. R. 1990. The origin of gold-tin-copper mineralisation at the Lakeside Deposit, western Tasmania. *Geological Report Mt Read Volcanics Project Tasmania* 5.

TURNER, N. J. 1992. Kara and other nearby magnetite resources. *Report Department of Mines Tasmania* 1992/12

TURNER, N. J. 1993. Catalogue of data relating to King Island Scheelite Ltd. *Report Mineral Resources Tasmania* 1993/18.

TURNER, N. J.; REED, A. R.; MORRISON, K. C. 2003*a*. Western Tasmanian Regional Minerals Program, Devonian Granite Aureoles Project. Tungsten prospectivity, King Island. *Record Tasmanian Geological Survey* 2003/14.

TURNER, N. J.; REED, A. R.; MORRISON, K. C. 2003*b*. Western Tasmanian Regional Minerals Program, Devonian Granite Aureoles Project. Devonian granitoids and prospective copper, tin and gold, northwestern Tasmania. *Record Tasmanian Geological Survey* 2003/15.

WHITEHEAD, C. H. 1985. Preliminary review of the potential magnetite resources — Kara Properties — EL17/68, *in:* WHITEHEAD, C. H. 1987. *Exploration Licence 17/68. Annual Report November 4 1985 – November 1986*. Tasmania Mines Ltd [TCR 88-2759].

WHITEHEAD, C. H.; TURNER, N. J. 1990. Kara scheelite-magnetite deposit, *in:* TURNER, N. J.; TAHERI, J. 1990. *10th Australian Geological Convention. Excursion Guide E2, tin and tungsten deposits and related Devonian granitoids*. Geological Society of Australia.

WRIGHT, J. H.; KWAK, T. A. P. 1989. Tin-bearing greisens of Mount Bischoff, northwestern Tasmania, Australia. *Economic Geology* 84:551–574.

[15 June 2003]

Table 1

Characteristics of main deposits

Deposit	Pre-mine resource	Deposit style	Distance from granite	Host stratigraphy	Structural setting	Key references	Gravity	Magnetics	Radiometrics	Electromagnetics	Summary
Bold Head/ Dolphin (fig. 2)	17 Mt @ 0.85% WO_3 (Brown, 1990)	Scheelite-bearing carbonate replacement skarn.	< 1 km — Grassy Granodiorite, Bold Head Adamellite.	Neoproterozoic Grassy Group dolomite.	Fractured host rocks in granite aureole. Ore body positions controlled by major fault.	Brown, 1990; Turner, 1993; Turner *et al.*, 2003*a*	Located near the edge of a gravity low and on sharp gravity boundary coincident with Bold Head Fault.	Adjacent to prominent magnetic linear coincident with Grassy River Fault.	Marked negative Th anomaly in Proterozoic volcanic rocks adjacent to Grassy River Fault. Deposits associated with discretely positive Th anomalies. Positive anomalism in Mesoproterozoic shale adjacent to Grassy River Fault in all bands but most marked in Th. Uncertain origin behind variable radiometric anomalism NE of Bold Head (high Th, U; low K).	No data.	Both Dolphin and Bold Head are radiometrically anomalous. Considerable magnetic contrast at contacts between Mesoproterozoic and Neoproterozoic rocks. Radiometric anomolism (K, Th) in Mesoproterozoic rocks adjacent to granite and Grassy River Fault, consistent with the Grassy River Fault being a major conduit for granite-related fluids.
Mt Bischoff (fig. 3, 4)	10 Mt @ 1.1% Sn (Green, 1996)	Carbonate replacement, granite porphry dykes, fault and fracture fill veins.	< 1 km — Meredith Granite, in part endo-granitic dykes.	Neoproterozoic Oonah Formation dolomite.	Folded host rocks breached by intruding porphyry dykes. Mineralisation controlled by post intrusion fracture system.	Groves *et al.*, 1972; Wright & Kwak, 1989; Halley & Walshe, 1995	On gravity low located at NE extent of a discontinuous NE-SW orientated trough that extends to Meredith Granite.	Prominent bullseye magnetic high over workings — possibly cultural. Underlying low frequency positive magnetic anomaly extending north of old workings.	Positive radiometric anomalism in all bands, although individual bands show varying extent, intensity, and centre of anomalism.	Prominent conductive bulls-eye anomaly over old workings. Less prominent linear conductors radiate from bulls-eye. Conductivity anomalies around basalt margin south of mine.	Strong radiometric and EM response over massive mineralisation. Prominent bulls-eye magnetic high over old workings appears cultural, with underlying low frequency magnetic response possibly related to mineralisation.
Kara (fig. 5, 6)	2.2 Mt @ 0.8% WO_3, >30% magnetite (Whitehead, 1985; Turner, 1992)	Carbonate replacement skarn.	< 1 km — Housetop Granite.	Ordovician Gordon Group limestone, calc sandstone.	Broad synclinal granite roof pendant with some possible fault control on deposit trends.	Whitehead, 1985; Whitehead & Turner, 1990; Turner, 1992	Negative to moderately negative gravity response.	Deposits form marked and discreet magnetic highs. Kara No. 1 and Kara South are located on N-trending positive magnetic linears. Kara No. 2 appears as one of about four discrete magnetic 'blebs' within granite. In 1VD data, Kara No. 1 and Kara South lie within a 1.7 km wide by about 10 km long N to NNE-trending corridor characterised by marked alternating positive and negative magnetic high and low linears.	Kara No. 1 and Kara South are located on a Th high and on the northern and southern flanks, respectively, of a K high. Kara South also lies on a weak to moderate NW-trending linear feature. Kara No. 2 lies within spot K low within the granite that corresponds with mapped carbonate. Kara No. 1 is associated with prominent U high, with U response medium to low for Kara South. As with K, there is an indication that the two deposits are separated by a NW-trending linear.	No data.	Magnetic data clearly show position of Kara deposits and adjacent Fe-rich deposits. Kara No. 1 and Kara South are within N-trending corridor evident in magnetics and K-band radiometrics. These deposits may also be associated with a NW-trending linear evident in radiometric data. Kara No. 2 forms one of several positively magnetic blebs within the main Housetop Granite body.
Moina (fig, 7, 8, 9)	26 Mt @ 18% CaF_2, 0.1% Sn, 0.1% WO_3 (Green, 1996)	Carbonate replacement skarn.	< 1 km — Dolcoath Granite.	Ordovician Gordon Group limestone, Moina Sandstone.	Folded, fractured host rocks connected to source granite by major fault.	Kwak & Askins, 1981; Douglas McKenna, 2003*a*, *b*; Morrison *et al.*, 2003	Located on the northern flank of a moderately positive gravity ridge separating the outcropping Dolcoath Granite from the main buried granite body ~8 km to the SW.	Discrete positive magnetic anomalies, the larger over Moina West. No distinct shape to the anomalies, although both appear to lie on regionally extensive, but discontinuous positive NW-trending magnetic ridges orientated at about -30° to the mapped Bismuth Creek Fault. Moina lies at the intersection of one of these ridges with the Bismuth Creek Fault (and also NE-trending linears coincident at surface with outcropping Tertiary basalt). There are also several other very prominent magnetic highs located along the length of these magnetic ridges.	Positive Th and to a lesser extent U response shown along length of Bismuth Creek Fault.	Marked by adjacent overlying basalt although, in various bands, small (<300 m diameter) resistive anomalies surround Moina East.	Positive magnetic anomaly associated with both Moina East and Moina West. The deposits approximately coincide with the intersection of the Bismuth Creek Fault, a prominent NW-trending magnetic ridge, and a 2 km wide corridor characterised by NE-trending magnetic linears underlying or within the Tertiary basalt.
Renison (fig. 10, 11)	26 Mt @ 1.46% Sn (Green, 2003)	Carbonate replacement, fault and fracture fill veins.	< 1 km — Pine Hill Granite.	Neoproterozoic Success Creek Group – Crimson Creek Formation dolomite.	Folded host rocks fractured by intruding granite and mineralisation controlled by major fault development.	Patterson *et al.*, 1981; Kitto, 1992; Kitto *et al.*, 1997	Mineralised zone coincides with an indent on northern flank of a marked negative gravity anomaly.	No consistent or differentiable response between mineralised zone and variable response observed in adjacent rocks.	Strong response from siltstone in the Success Creek Group, with the greatest response from these rocks adjacent to the Mine Sequence and where the siltstone intersects an outcropping granite dyke. U is particularly marked. Carbonate-bearing Success Creek Group rocks in the Mine Sequence show moderate response, but considerably higher than the same rocks outside the mine.	With the exception of the far NW extent, most of the Mine Sequence shows up as a prominent conductor. To a more variable extent, this conductive zone extends to include mineral prospects and deposits south of Renison and the tailings dam to the north.	Mineralised zone prominent in all EM datasets, although far NW of zone is consistently resistive. Mine Sequence apparent in all radiometric bands, but particularly Th and U.

Deposit	Pre-mine resource	Deposit style	Distance from granite	Host stratigraphy	Structural setting	Key references	Gravity	Magnetics	Radiometrics	Electromagnetics	Summary
Comstock/ Sylvester (fig. 12, 13)	6 Mt @ 5.5% Zn, 3.3% Pb, 40 g/t Ag (Crossing, 1992*a*)	Carbonate replacement skarn, fault fill veining.	< 2 km — Heemskirk Granite, possible dyke close under deposit.	Neoproterozoic Oonah Formation dolomite, limestone, marl.	Folded host rocks. Mineralisation controlled by major faults and intraformational melange zones.	Crossing, 1992*a*, *b*	A NE- to ENE-trending negative gravity trough extends east from the Heemskirk Granite. The trough shows an increasing gravity gradient towards the Queen Hill group of deposits (360 500 mE, 5 436 175 mN). The Comstock–Sylvester group of deposits lie on the SE flank of this trough.	A prominent ENE-trending magnetic linear is located about 200 m north of Comstock and Sylvester. Both deposits are located within a positive magnetic 'high' bulging from the southern margin of this linear and at the intersection of this linear with the mapped WNW-trending Balstrup Fault. The ENE magnetic linear has a strike extent of at least 5 km. The eastern extent of this structure is only weakly evident in the magnetic data but clearly intersects the Queen Hill group of deposits. Between Sylvester and Queen Hill, the structure appears disrupted by the NW-trending Sylvester Fault.	No consistent response although there is a 400 m diameter moderate to high radiometric anomaly over the southern Comstock group of workings (~357 500 mE, 5 360 400 mN).	The Comstock and Sylvester deposits are located at the NW end of a prominent NW-trending conductive EM anomaly (that terminates against ~E-W magnetic linear previously noted). The EM anomaly extends about 3.5 km to the SE of Comstock and Sylvester and lies to the SW of the NW-trending Balstrup Fault. The EM anomaly and Balstrup Fault diverge with distance away from the Comstock-Sylvester deposits.	The Comstock-Sylvester group of deposits lie at the intersection of an ENE-trending positive magnetic linear and a NW-trending conductive zone. The ENE-trending magnetic linear is at least 5km in extent and connects the Comstock-Sylvester group of deposits with those at Queen Hill. Its projection to the west intersects the main mineralised areas within the southern Heemskirk granite. An approximately coincident ENE trend is also evident in the gravity data.
Avebury	4 Mt @ 1.5% Ni — exploration continuing (Allegiance Mining, 2003)	Skarn in metasomatised nickel-bearing ultramafic rocks.	< 2 km — Heemskirk Granite.	Cambrian serpentinised ultramafic/mafic complex.	Fractured, faulted and folded ductile host rocks in granite aureole.	Allegiance Mining, 2003; Company reports to Australian Stock Exchange	N/A	N/A	N/A	N/A	N/A
Cleveland (fig. 14, 15)	10 Mt @ 0.78 % Sn, 0.3% Cu (Collins *et al.*, 1989)	Carbonate and shale replacement with footwall stockwork vein system.	< 1 km — Meredith Granite porphyry dyke.	Cambrian Halls Formation (Cleveland-Waratah association) marl, limestone.	Folded host rocks intruded by granite. Ore lenses controlled by intersection of steep fracture system and thrusts.	Ransom and Hunt, 1975; Collins, 1981; Collins, 1983	Located on NW flank of regional gravity trough.	Nothing definitive. Deposit located on gradational NE-trending boundary between magnetic high to SE and low to NW.	Deposit located at NE end of NE-trending belt about 2.5 × 0.5 km in extent of variable but mainly positive radiometric response.	Deposit located in or at margin of moderately to weakly conductive corridor, about 200 m wide by about 2000 m long, and orientated at about 045 degrees (parallel to mineralisation and unit strike).	A lack of areal extent to this deposit has prevented effective characterisation using regional geophysics.

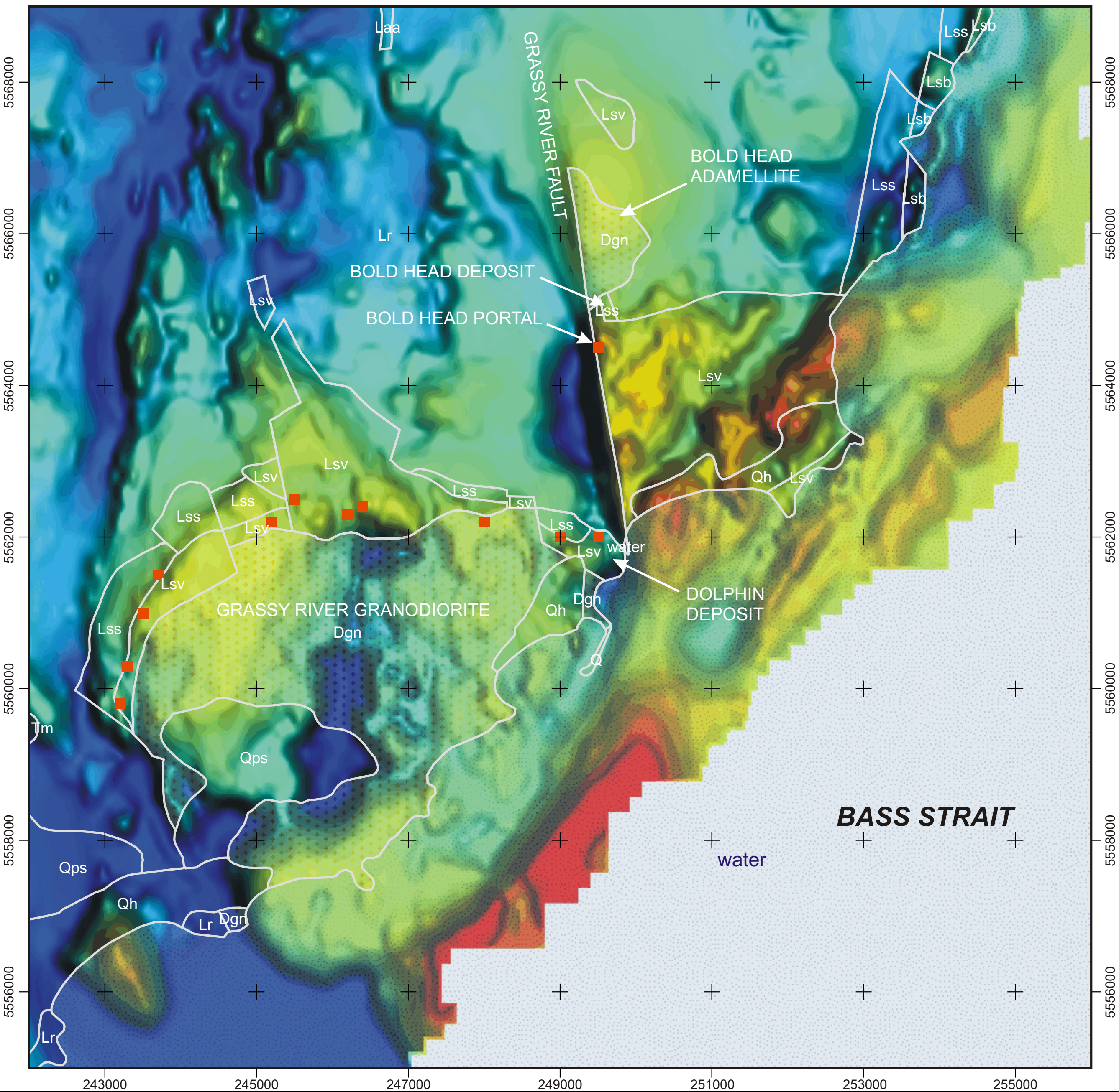
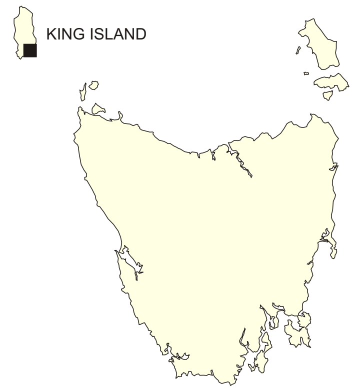


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)

DISCLAIMER

This and accompanying maps and reports are based on interpretations of geophysical data. While every care has been taken in the preparation of these data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. This material is provided upon the condition that the user, by receiving or viewing the material shown, agrees not to act in reliance upon it without first satisfying himself/herself by independent enquiry or advice as to the correctness, accuracy, relevance, currency, reliability or otherwise of the material displayed, including (without limitation) representations of fact, nature, quality and suitability. Whilst every endeavour has been made to ensure the accuracy and reliability of the information shown, the author expressly disclaims any liability or responsibility for any errors or omissions that may occur herein. The user shall have, make or bring no action, suit, claim, demand or proceedings against the author for damages, compensation, losses, costs, expenses, orders or any other legal or equitable remedy should any such material be found to be incorrect, inaccurate, erroneous, defective, deceptive or misleading, whether caused by the negligence of the author or any other cause whatsoever.

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.



Tasmania, with location of main image shown on King Island

Legend

- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Devonian granite
- 1:250 000 scale geology unit outline (see Geology of NW Tasmania map for unit descriptions)

Magnetic HIGH

(with overhead illumination)

Magnetic LOW

N

2000 1000 0 2000 metres

Dolphin, Bold Head

Total Magnetic Intensity

Image by Alistair Reed

Figure 2

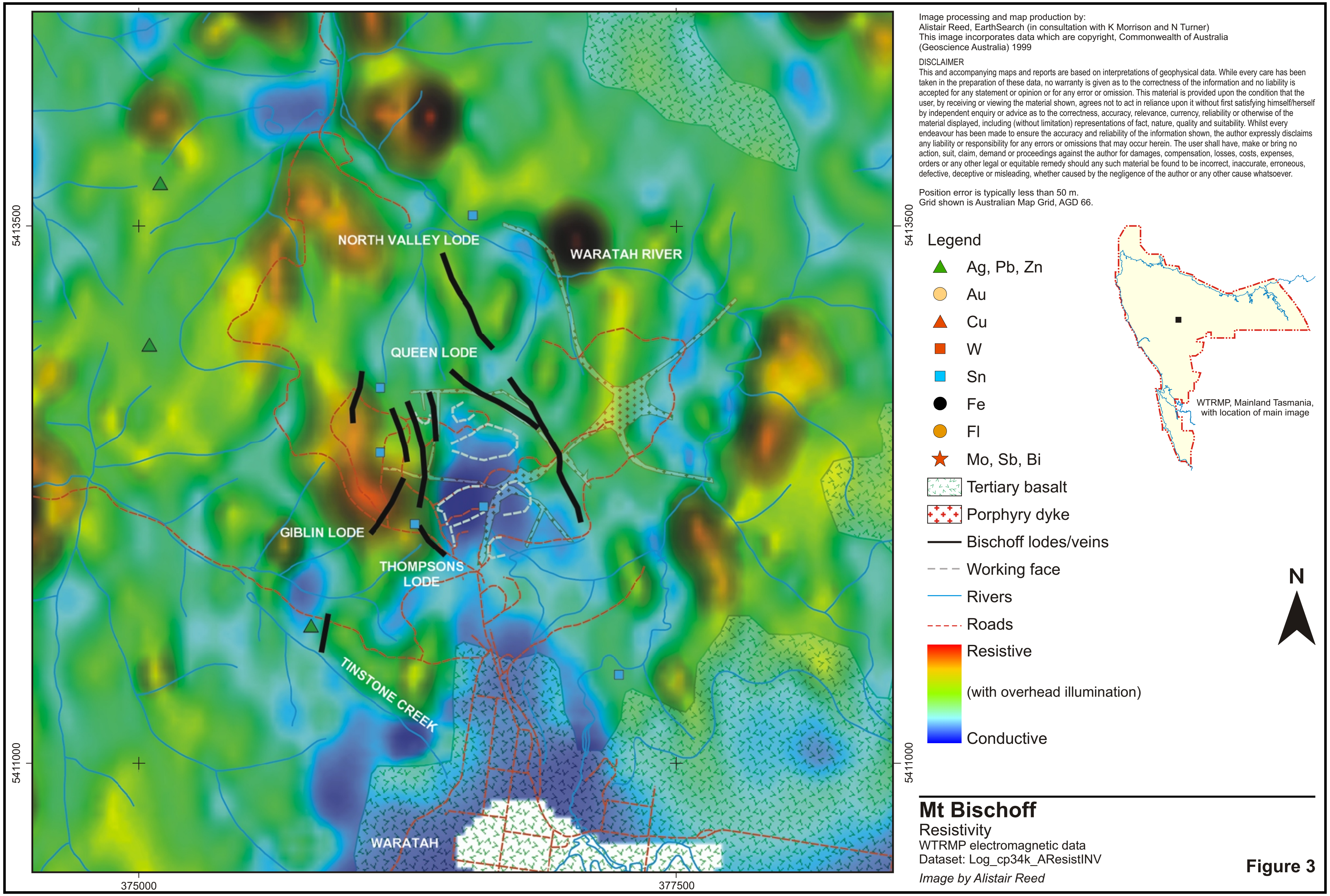
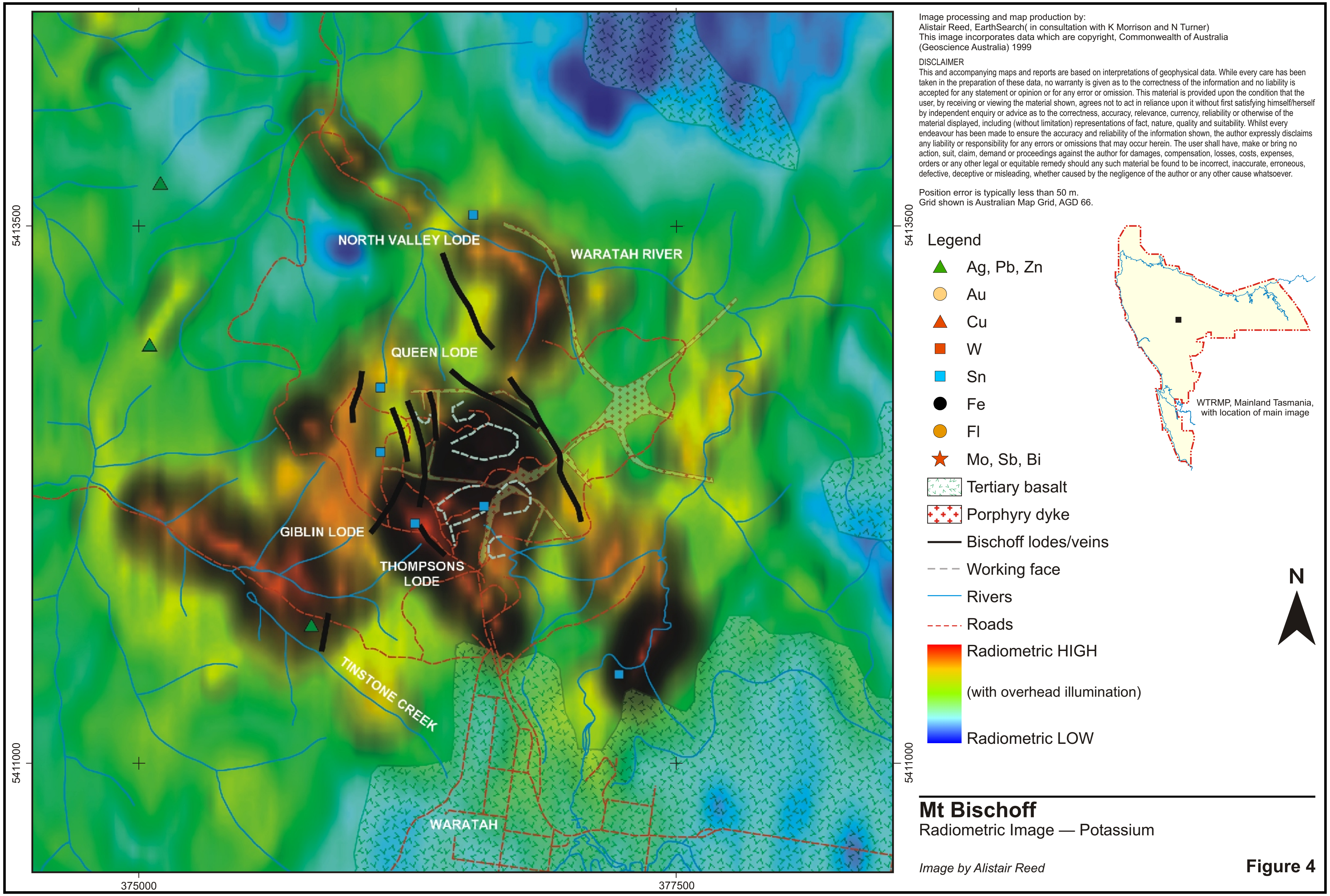

NORTH VALLEY LODE
WARATAH RIVER
QUEEN LODE
GIBLIN LODE
THOMPSONS LODE
TINSTONE CREEK
WARATAH
5413500
5411000
375000
377500
Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia (Geoscience Australia) 1999
DISCLAIMER
This and accompanying maps and reports are based on interpretations of geophysical data. While every care has been taken in the preparation of these data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. This material is provided upon the condition that the user, by receiving or viewing the material shown, agrees not to act in reliance upon it without first satisfying himself/herself by independent enquiry or advice as to the correctness, accuracy, relevance, currency, reliability or otherwise of the material displayed, including (without limitation) representations of fact, nature, quality and suitability. Whilst every endeavour has been made to ensure the accuracy and reliability of the information shown, the author expressly disclaims any liability or responsibility for any errors or omissions that may occur herein. The user shall have, make or bring no action, suit, claim, demand or proceedings against the author for damages, compensation, losses, costs, expenses, orders or any other legal or equitable remedy should any such material be found to be incorrect, inaccurate, erroneous, defective, deceptive or misleading, whether caused by the negligence of the author or any other cause whatsoever.
Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.
Legend
Ag, Pb, Zn
Au
Cu
W
Sn
Fe
Fl
Mo, Sb, Bi
Tertiary basalt
Porphyry dyke
Bischoff lodes/veins
Working face
Rivers
Roads
Resistive
(with overhead illumination)
Conductive
WTRMP, Mainland Tasmania, with location of main image
N
Mt Bischoff
Resistivity
WTRMP electromagnetic data
Dataset: Log_cp34k_AResistINV
Image by Alistair Reed

Figure 3



Mt Bischoff
Radiometric Image — Potassium

Image by Alistair Reed

Figure 4

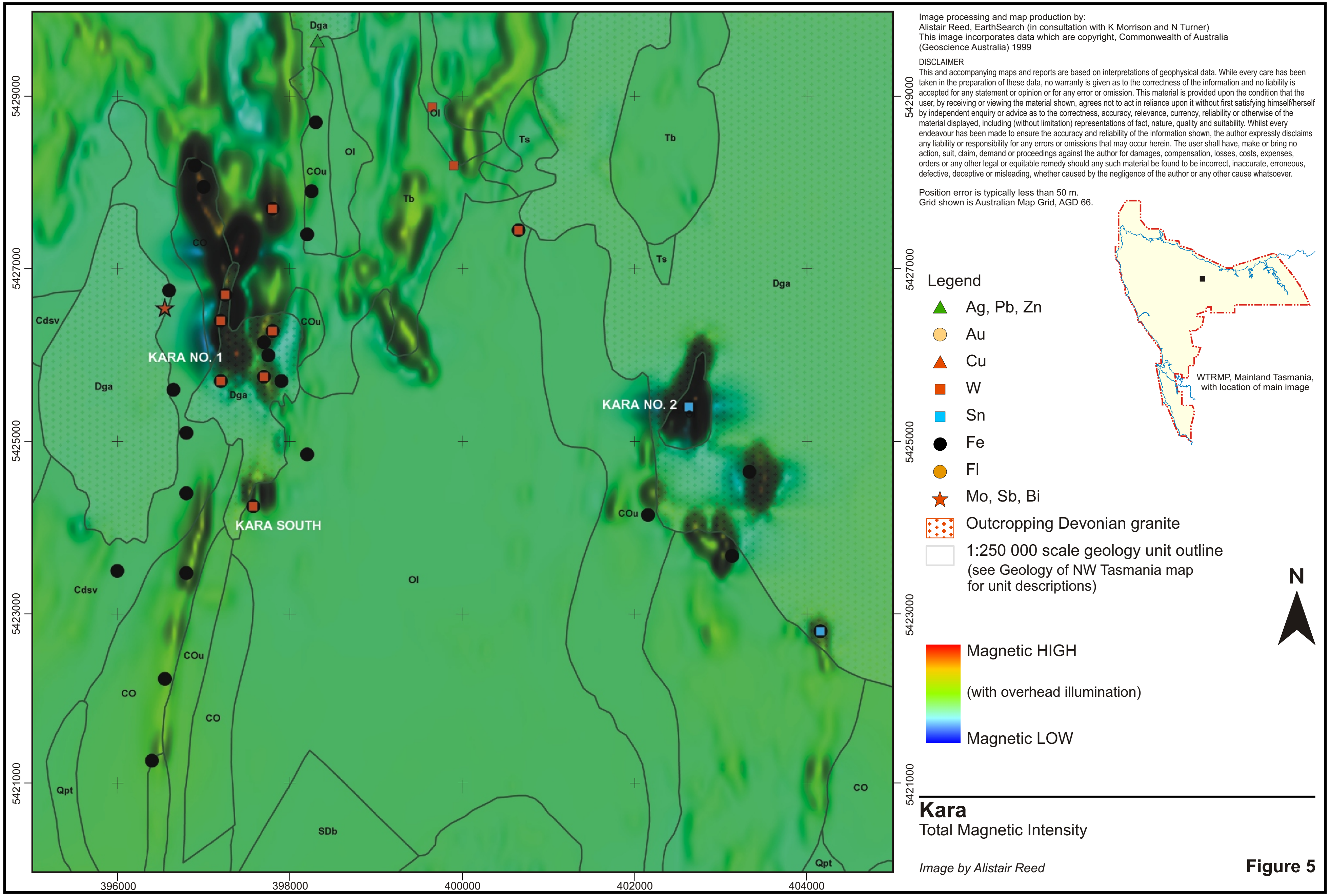


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia (Geoscience Australia) 1999
DISCLAIMER
This and accompanying maps and reports are based on interpretations of geophysical data. While every care has been taken in the preparation of these data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. This material is provided upon the condition that the user, by receiving or viewing the material shown, agrees not to act in reliance upon it without first satisfying himself/herself by independent enquiry or advice as to the truth, accuracy, relevance, currency, reliability or otherwise of the material displayed, including (without limitation) representations of fact, nature, quality and suitability. Whilst every endeavour has been made to ensure the accuracy and reliability of the information shown, the author expressly disclaims any liability or responsibility for any errors or omissions that may occur herein. The user shall have, make or bring no action, suit, claim, demand or proceedings against the author for damages, compensation, losses, costs, expenses, orders or any other legal or equitable remedy should any such material be found to be incorrect, inaccurate, erroneous, defective, deceptive or misleading, whether caused by the negligence of the author or any other cause whatsoever.
Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.
WTRMP, Mainland Tasmania, with location of main image
Legend
Ag, Pb, Zn
Au
Cu
W
Sn
Fe
Fl
Mo, Sb, Bi
Outcropping Devonian granite
1:250 000 scale geology unit outline (see Geology of NW Tasmania map for unit descriptions)
Magnetic HIGH
(with overhead illumination)
Magnetic LOW
N
KARA NO. 1
KARA NO. 2
KARA SOUTH
Dga
Ol
COu
Tb
Ts
CO
Cdsv
SDb
Qpt
396000
398000
400000
402000
404000
5429000
5427000
5425000
5423000
5421000
Kara
Total Magnetic Intensity
Image by Alistair Reed
Figure 5

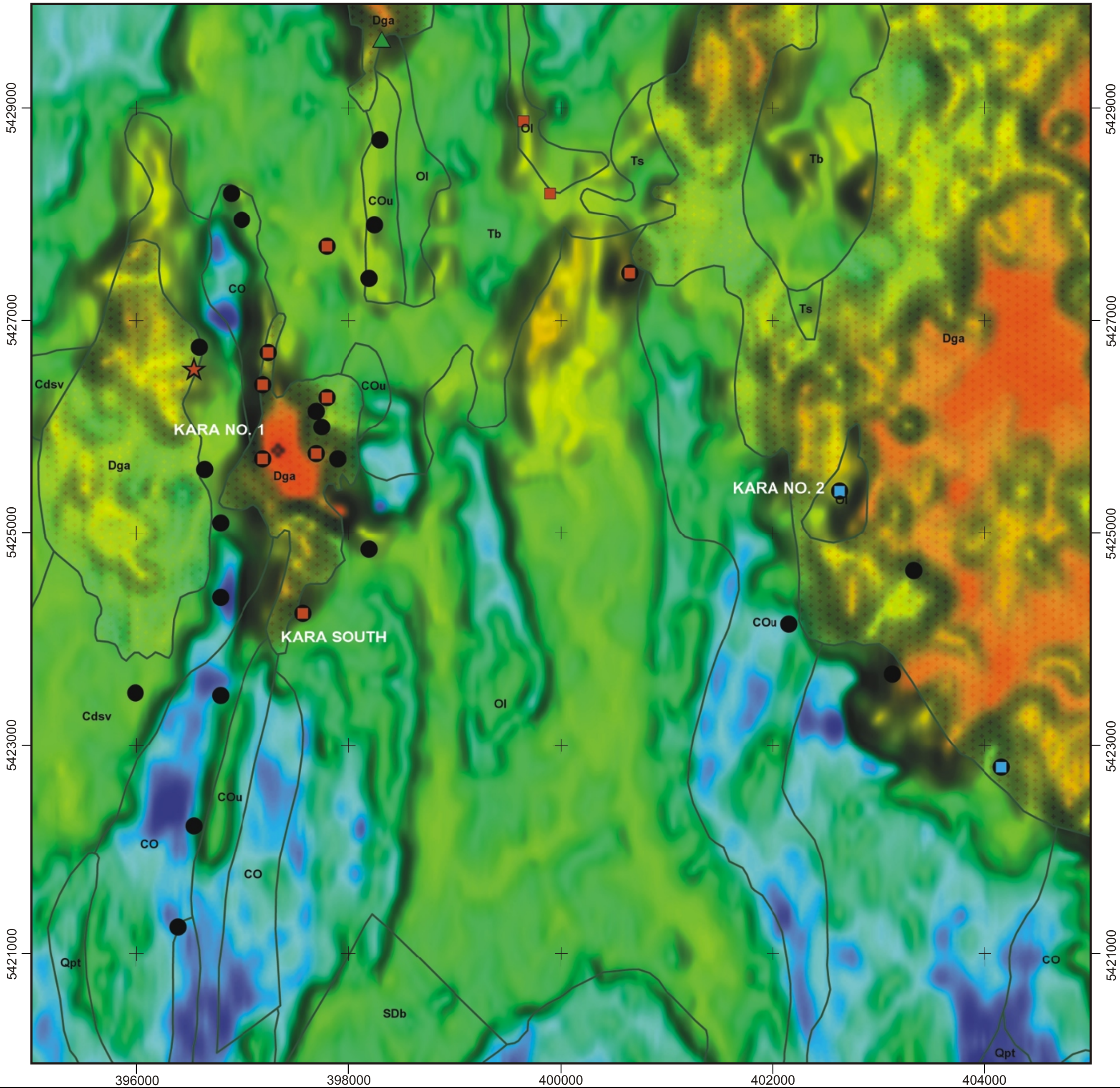
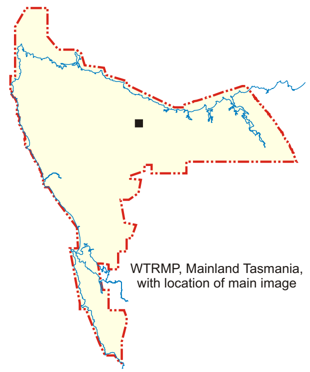


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.



WTRMP, Mainland Tasmania, with location of main image

Legend

- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Outcropping Devonian granite
- 1:250 000 scale geology unit outline (see Geology of NW Tasmania map for unit descriptions)

Radiometric HIGH

(with overhead illumination)

Radiometric LOW

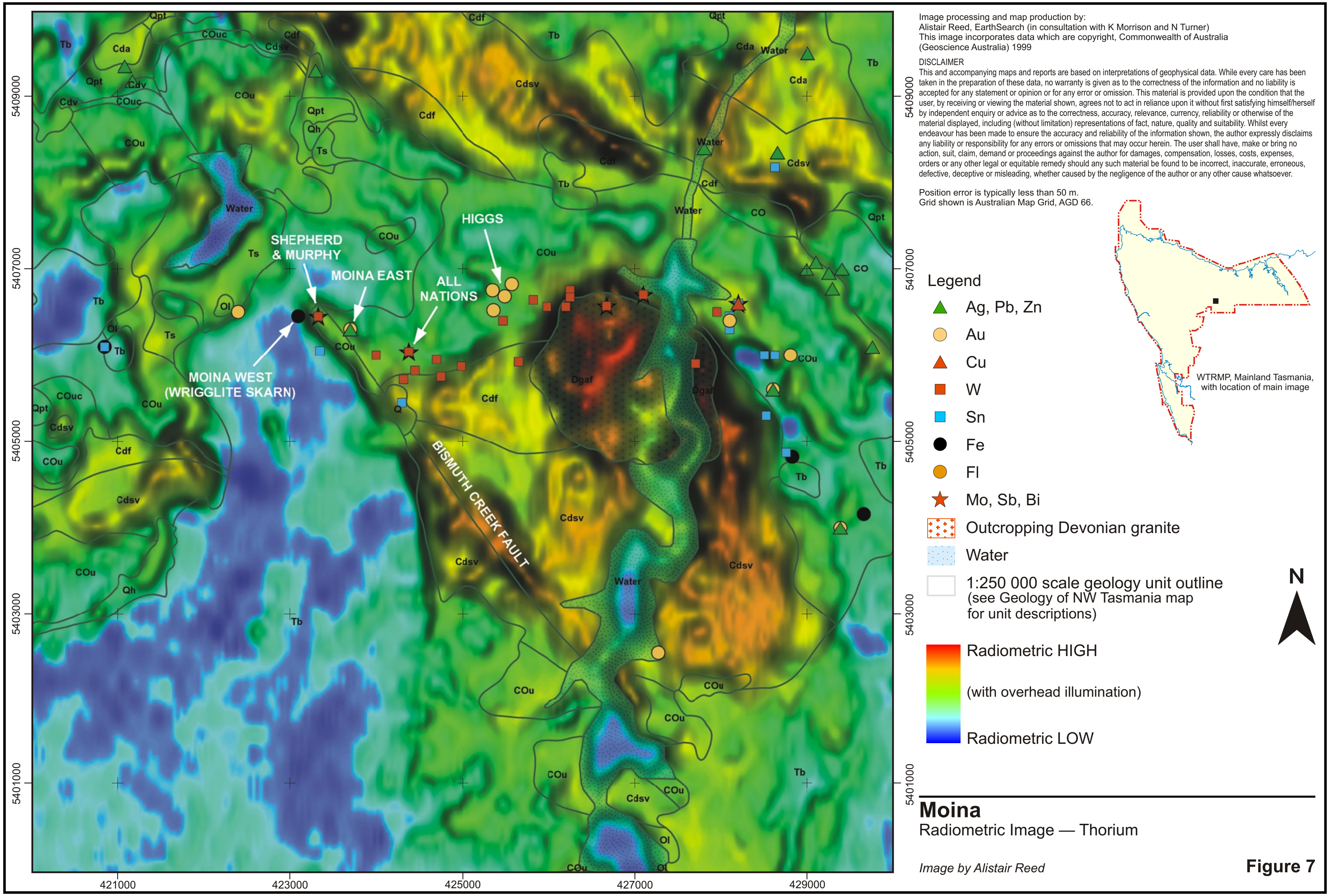
N

Kara

Radiometric Image — Thorium

Image by Alistair Reed

Figure 6



Moina

Radiometric Image — Thorium

Figure 7

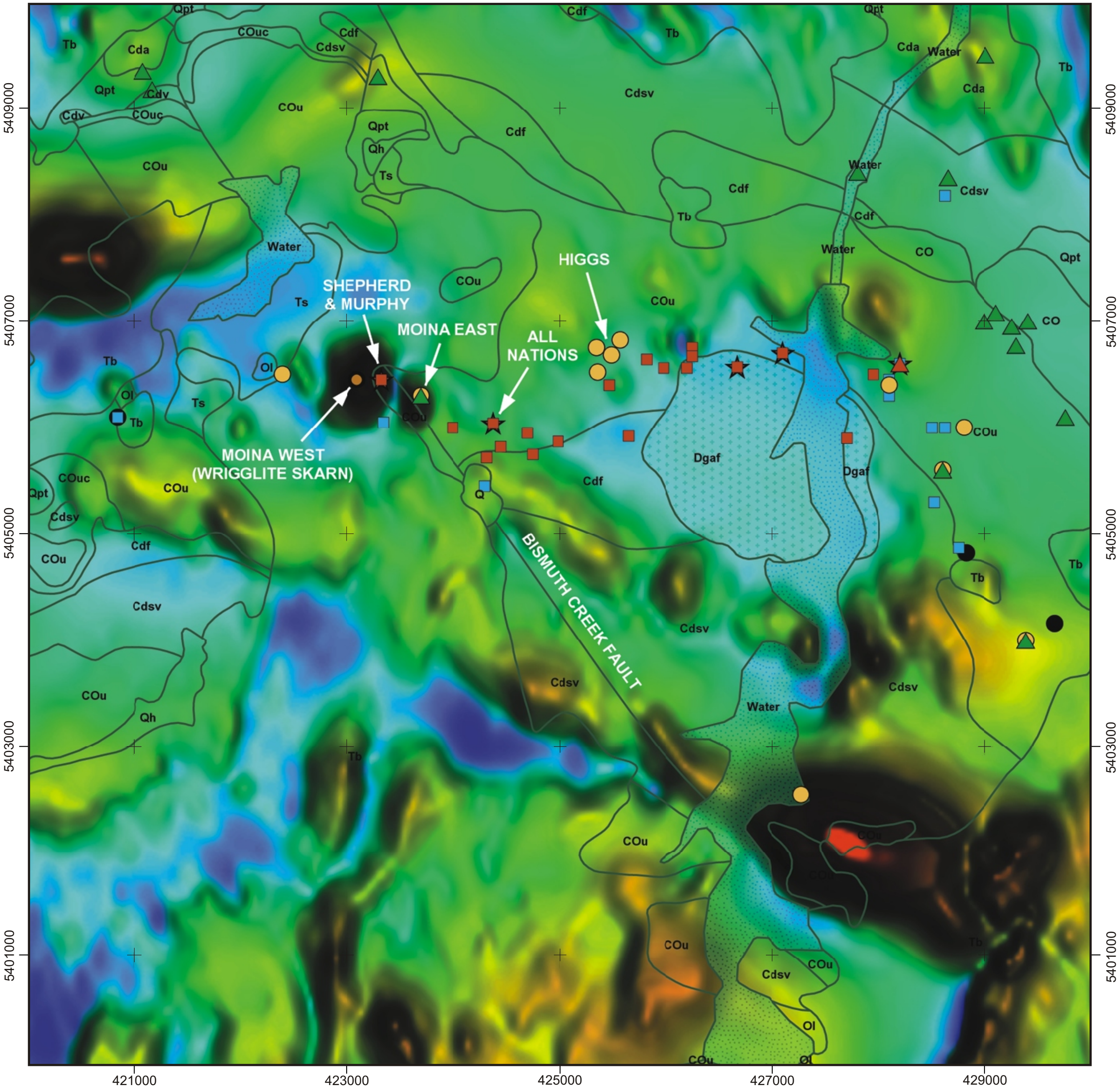
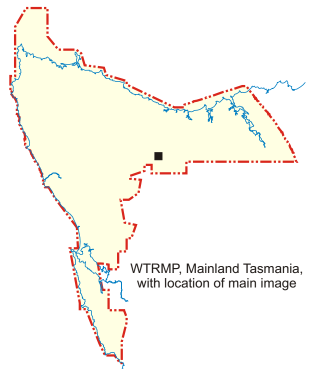


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia (Geoscience Australia) 1999

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.



WTRMP, Mainland Tasmania, with location of main image

Legend

- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Outcropping Devonian granite
- Water
- 1:250 000 scale geology unit outline (see Geology of NW Tasmania map for unit descriptions)
- Magnetic HIGH (with overhead illumination) Magnetic LOW

N

Moina
Total magnetic intensity

Image by Alistair Reed

Figure 8

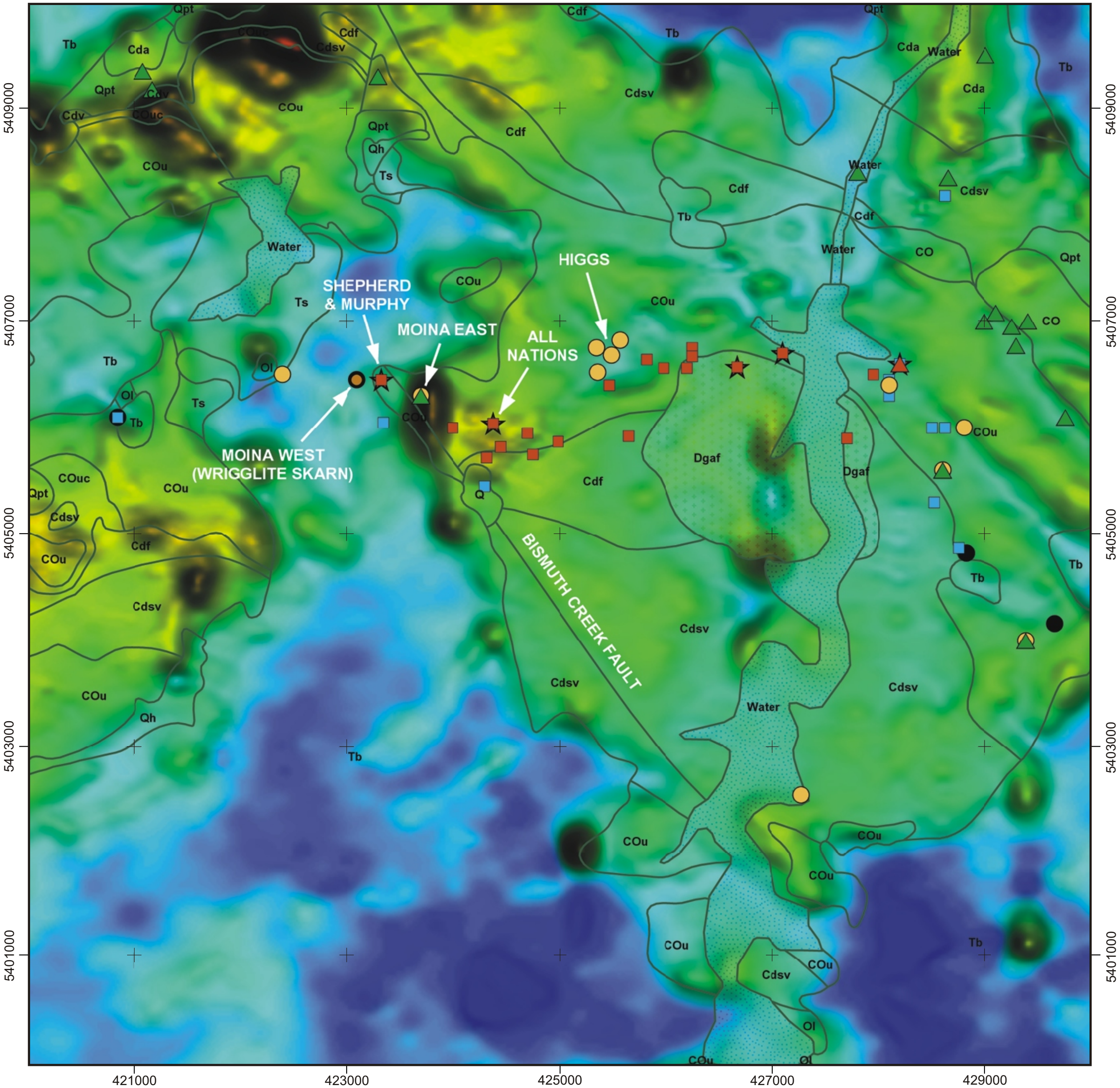
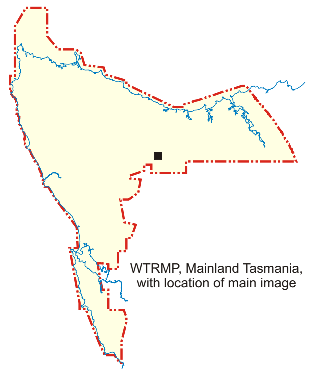


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia (Geoscience Australia) 1999

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.



Legend

- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Outcropping Devonian granite
- Water
- 1:250 000 scale geology unit outline (see Geology of NW Tasmania map for unit descriptions)

N

Resistive

(with overhead illumination)

Conductive

Moina

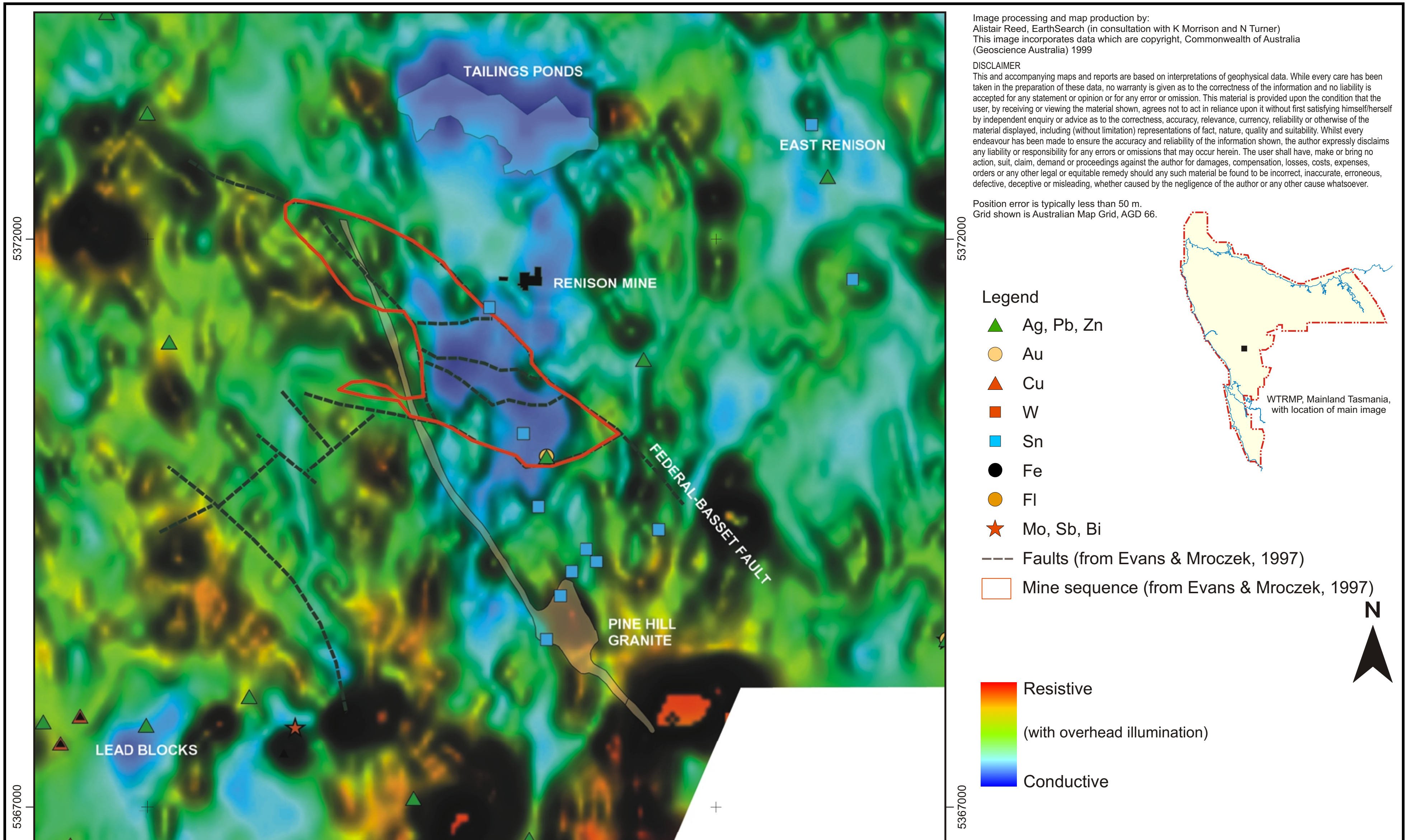
Resistivity

WTRMP Electromagnetic data

Dataset: Log_cp34k_AResistINV

Image by Alistair Reed

Figure 9

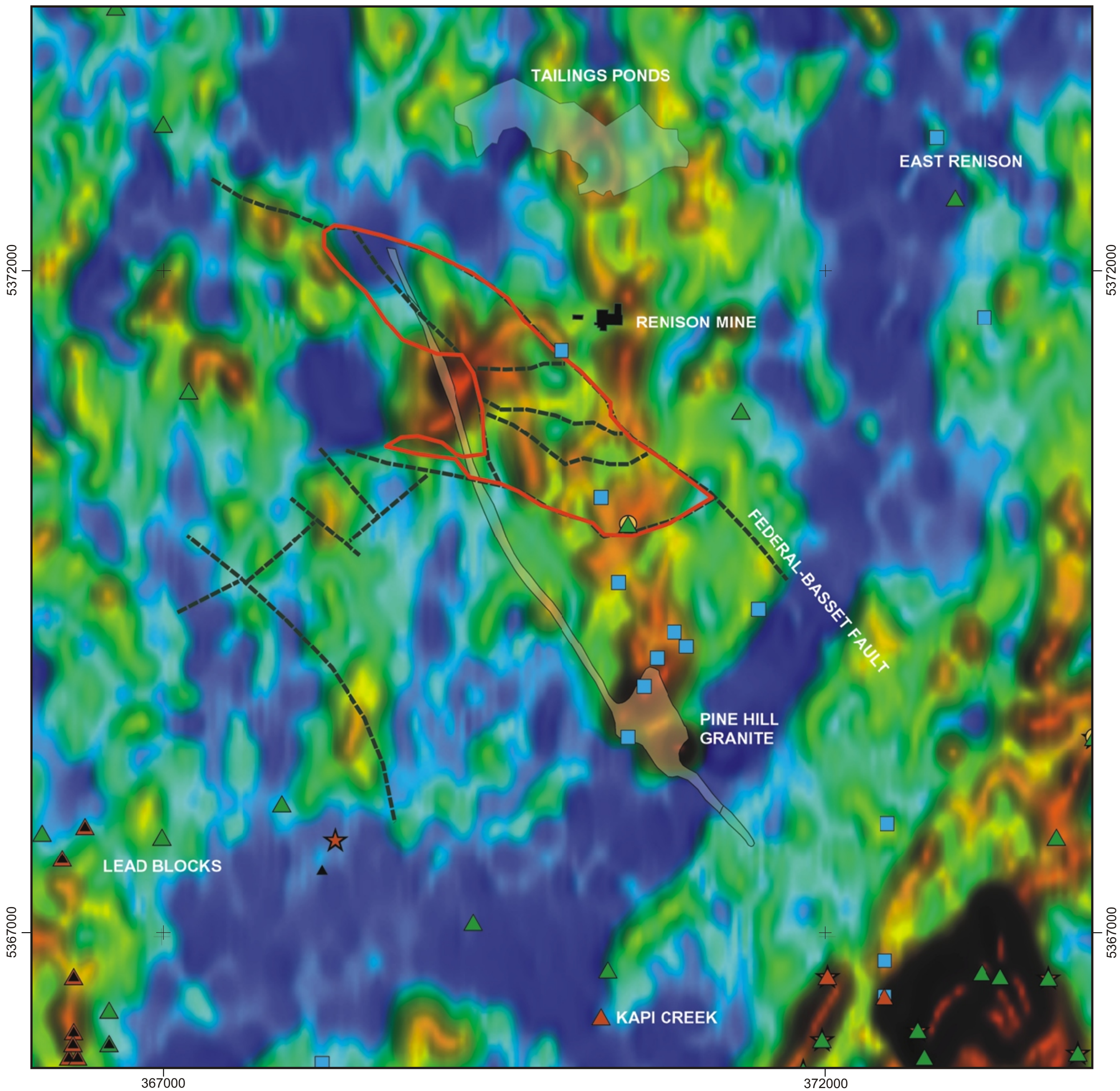


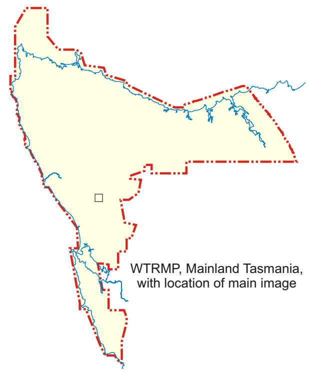
Renison Bell
Resistivity
WTRMP Electromagnetic data
Dataset: Log_cp6k_AResistINV
Image by Alistair Reed

Figure 10

Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.





Legend
- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Faults (from Evans & Mroczek, 1997)
- Mine sequence (from Evans & Mroczek, 1997)

N

Radiometric HIGH
(with overhead illumination)
Radiometric LOW

Renison Bell
Radiometric image — uranium

Image by Alistair Reed

Figure 11

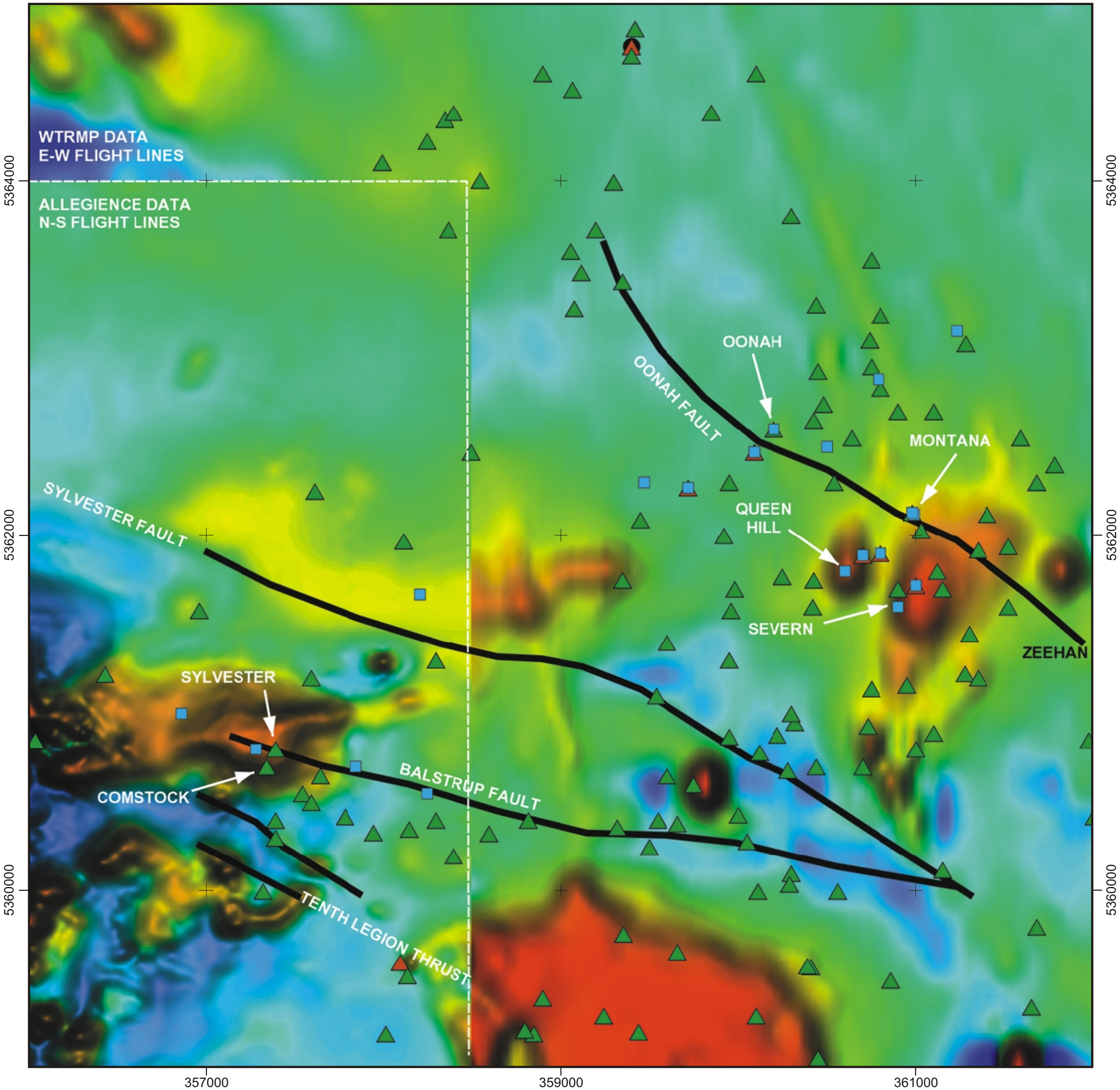
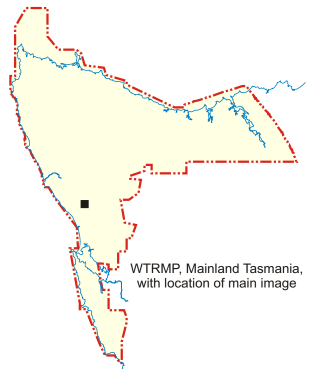


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia (Geoscience Australia) 1999

DISCLAIMER
This and accompanying maps and reports are based on interpretations of geophysical data. While every care has been taken in the preparation of these data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. This material is provided upon the condition that the user, by receiving or viewing the material shown, agrees not to act in reliance upon it without first satisfying himself/herself by independent enquiry or advice as to the correctness, accuracy, relevance, currency, reliability or otherwise of the material displayed, including (without limitation) representations of fact, nature, quality and suitability. Whilst every endeavour has been made to ensure the accuracy and reliability of the information shown, the author expressly disclaims any liability or responsibility for any errors or omissions that may occur herein. The user shall have, make or bring no action, suit, claim, demand or proceedings against the author for damages, compensation, losses, costs, expenses, orders or any other legal or equitable remedy should any such material be found to be incorrect, inaccurate, erroneous, defective, or deceptive or misleading, whether caused by the negligence of the author or any other cause whatsoever.

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.



Legend
- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Mapped Faults (Crossing, 1990)

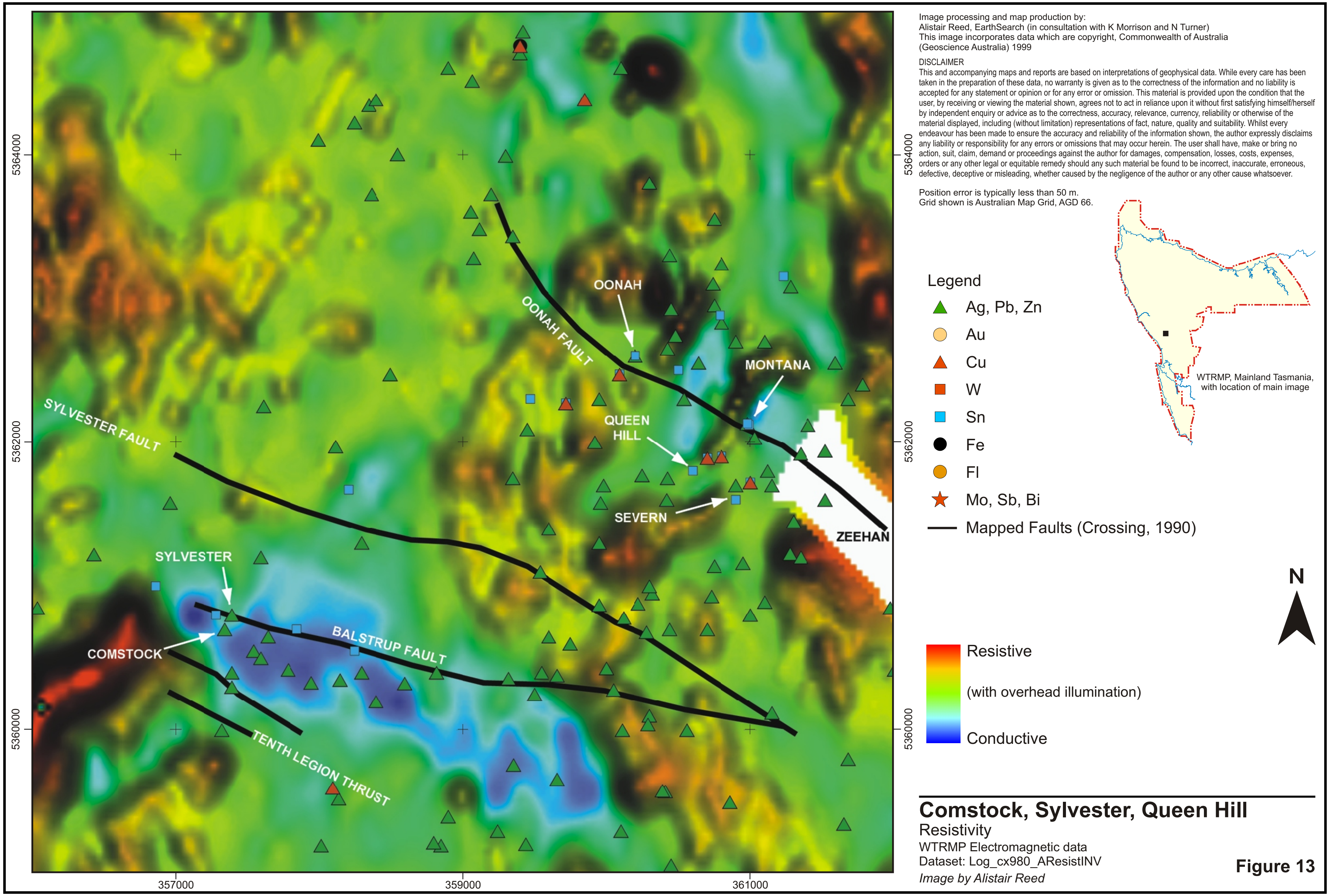
N

Magnetic HIGH
(with overhead illumination)
Magnetic LOW

Comstock, Sylvester, Queen Hill
WTRMP Total Magnetic Intensity, overlain by Allegiance 1VD magnetic data

Image by Alistair Reed

Figure 12



Comstock, Sylvester, Queen Hill
Resistivity
WTRMP Electromagnetic data
Dataset: Log_cx980_AResistINV
Image by Alistair Reed
Figure 13

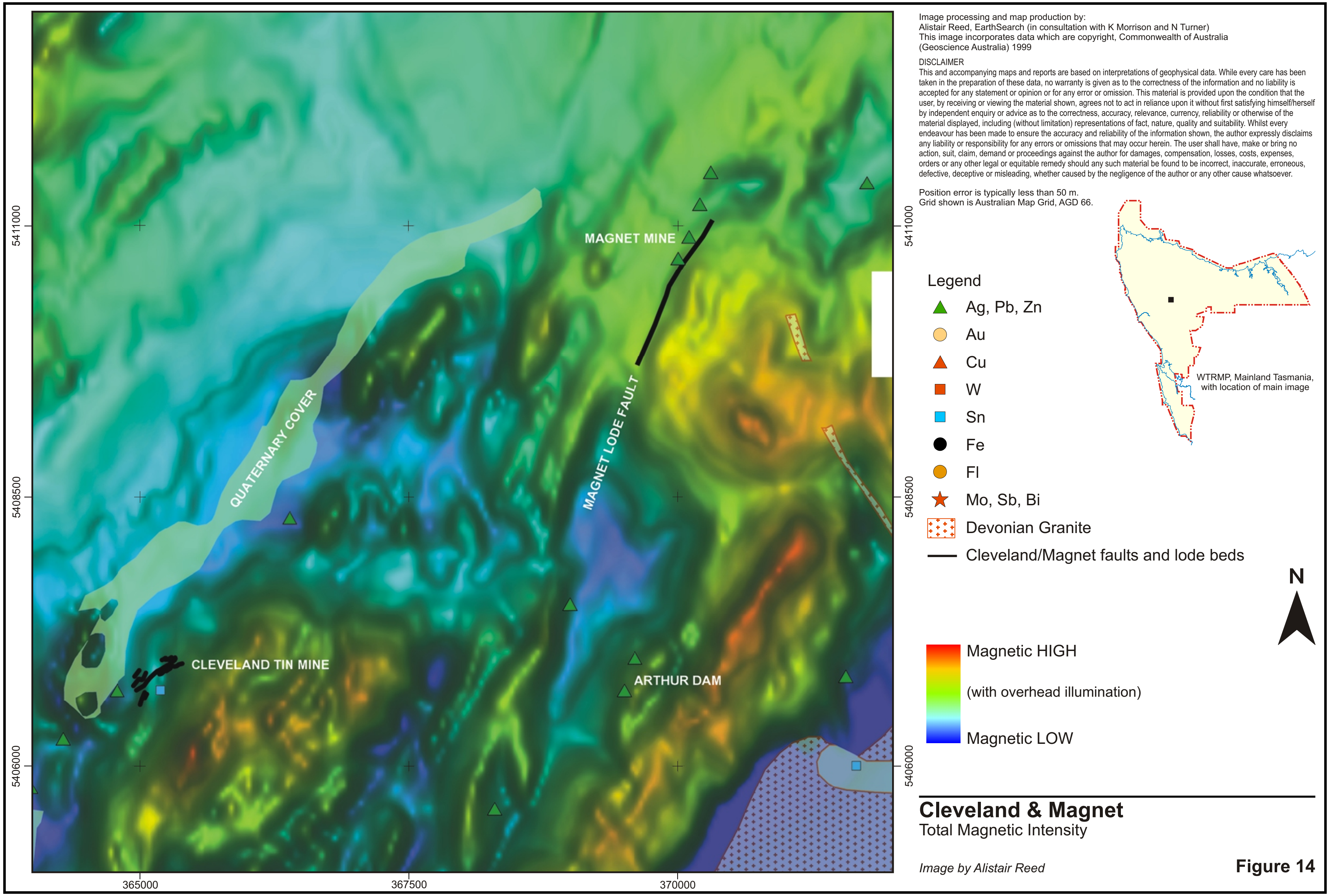


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia
(Geoscience Australia) 1999
DISCLAIMER
This and accompanying maps and reports are based on interpretations of geophysical data. While every care has been taken in the preparation of these data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. This material is provided upon the condition that the user, by receiving or viewing the material shown, agrees not to act in reliance upon it without first satisfying himself/herself by independent enquiry or advice as to the correctness, accuracy, relevance, currency, reliability or otherwise of the material displayed, including (without limitation) representations of fact, nature, quality and suitability. Whilst every endeavour has been made to ensure the accuracy and reliability of the information shown, the author expressly disclaims any liability or responsibility for any errors or omissions that may occur herein. The user shall have, make or bring no action, suit, claim, demand or proceedings against the author for damages, compensation, losses, costs, expenses, orders or any other legal or equitable remedy should any such material be found to be incorrect, inaccurate, erroneous, defective, deceptive or misleading, whether caused by the negligence of the author or any other cause whatsoever.
Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.
WTRMP, Mainland Tasmania, with location of main image
Legend
Ag, Pb, Zn
Au
Cu
W
Sn
Fe
Fl
Mo, Sb, Bi
Devonian Granite
Cleveland/Magnet faults and lode beds
N
Magnetic HIGH
(with overhead illumination)
Magnetic LOW
MAGNET MINE
QUATERNARY COVER
MAGNET LODE FAULT
CLEVELAND TIN MINE
ARTHUR DAM
5411000
5408500
5406000
365000
367500
370000
Cleveland & Magnet
Total Magnetic Intensity
Image by Alistair Reed
Figure 14

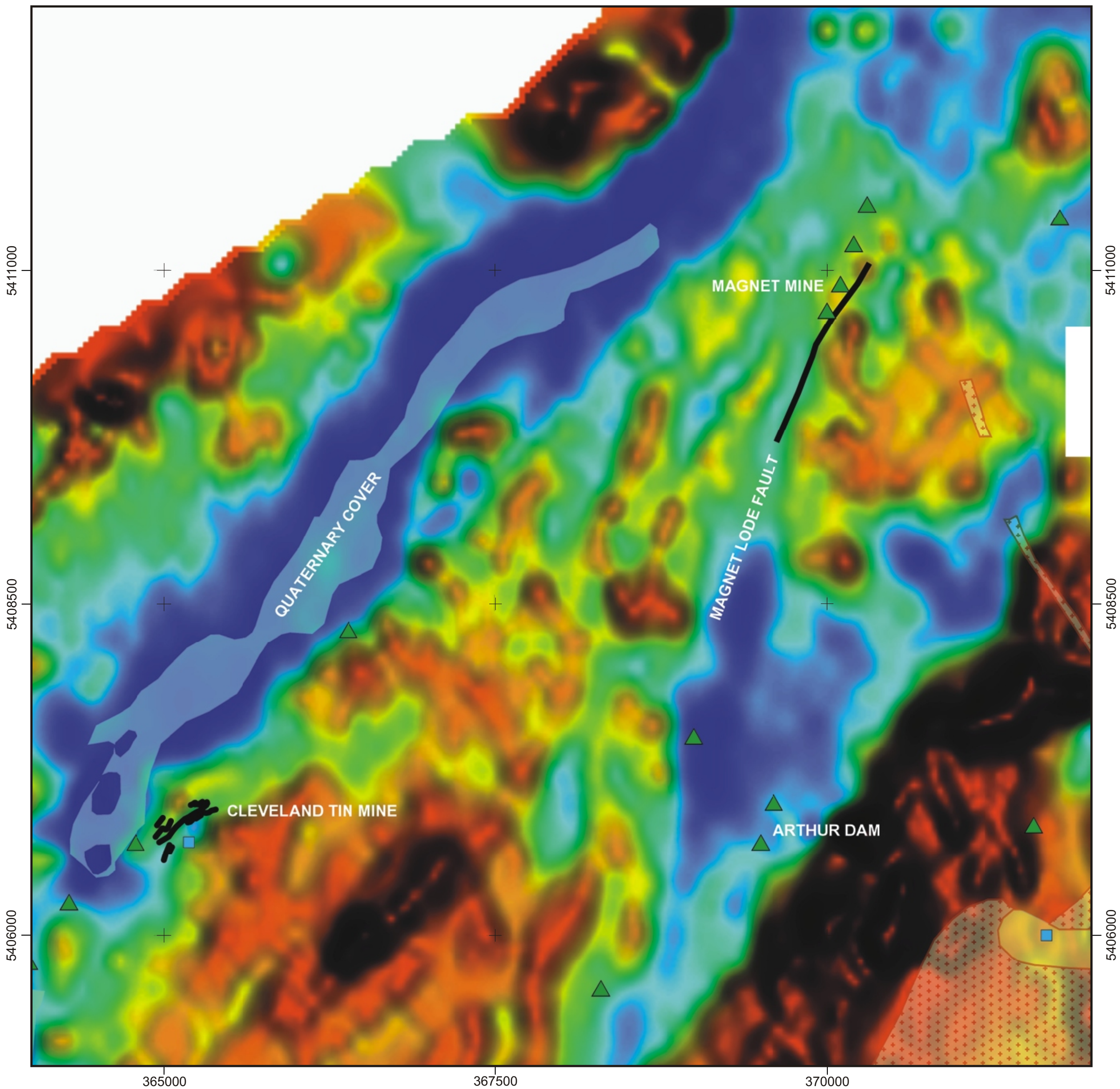
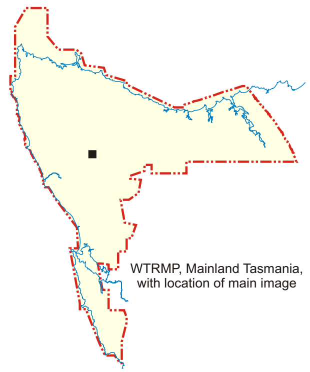


Image processing and map production by:
Alistair Reed, EarthSearch (in consultation with K Morrison and N Turner)
This image incorporates data which are copyright, Commonwealth of Australia (Geoscience Australia) 1999

DISCLAIMER
This and accompanying maps and reports are based on interpretations of geophysical data. While every care has been taken in the preparation of these data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. This material is provided upon the condition that the user, by receiving or viewing the material shown, agrees not to act in reliance upon it without first satisfying himself/herself by independent enquiry or advice as to the correctness, accuracy, relevance, currency, reliability or otherwise of the material displayed, including (without limitation) representations of fact, nature, quality and suitability. Whilst every endeavour has been made to ensure the accuracy and reliability of the information shown, the author expressly disclaims any liability or responsibility for any errors or omissions that may occur herein. The user shall have, make or bring no action, suit, claim, demand or proceedings against the author for damages, compensation, losses, costs, expenses, orders or any other legal or equitable remedy should any such material be found to be incorrect, inaccurate, erroneous, defective, deceptive or misleading, whether caused by the negligence of the author or any other cause whatsoever.

Position error is typically less than 50 m.
Grid shown is Australian Map Grid, AGD 66.



WTRMP, Mainland Tasmania, with location of main image

Legend

- Ag, Pb, Zn
- Au
- Cu
- W
- Sn
- Fe
- Fl
- Mo, Sb, Bi
- Devonian Granite
- Cleveland/Magnet faults and lode beds

N

Resistive

(with overhead illumination)

Conductive

Cleveland & Magnet

Resistivity

WTRMP Electromagnetic data

Dataset: Log_cp880_AResistINV

Image by Alistair Reed

Figure 15