MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
CASTRA, SHEET 4242

CASTRA

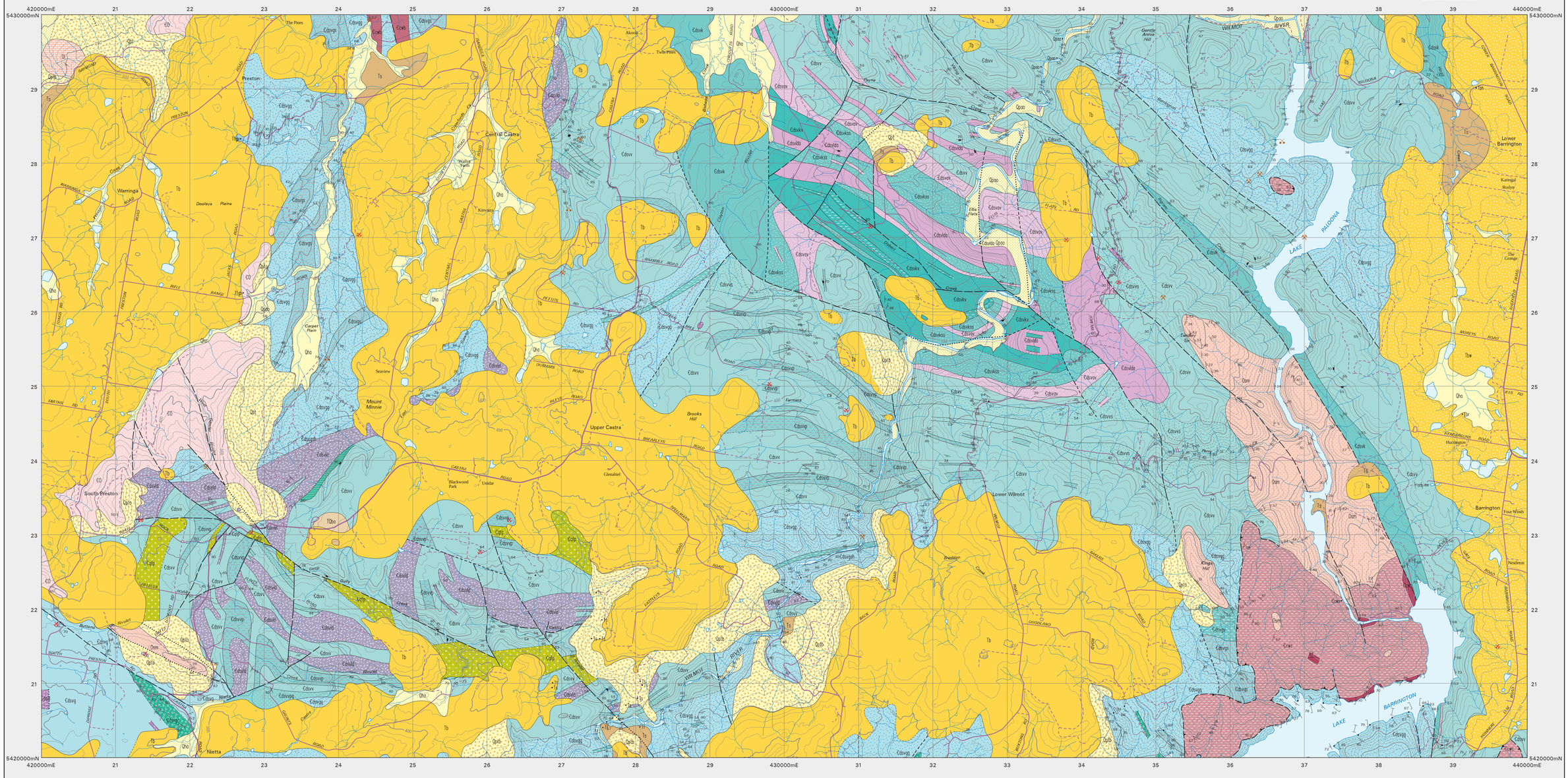
Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CENOZOIC

QUATERNARY

HOLOCENE

- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*
- **Qptd** — *Basalt talus (Qptb).*

PLEISTOCENE

- **Qpl** — *Quartz sandstone and conglomerate talus derived from Owen and Gordon Group correlates (Qpto).*
- **Qpao** — *Older alluvium (Qpao).*

TERTIARY

Tb

- **Tbw** — *Deeply weathered basalt (Tbw).*
- **Tfgb** — *Basalt (Tb), including local occurrence of hawaiite (Tbh), and transitional olivine basalt (Tbr). Greybilly and silcrete (Tfgb).*
- **Tf** — *Local occurrence of ferricrete (Tf).*
- **Ts** — *Terrestrial sand, gravel and minor lacustrine deposits (Ts).*
- **TQbo** — *Deposits of large boulders derived from Owen Group (TQbo).*

PALEOZOIC

LATE CAMBRIAN – ORDOVICIAN

GORDON GROUP

- **Ol** — *Limestone (correlate of Gordon Limestone) (Ol).*
- **Osm** — *Pale grey to dark reddish grey, fine– to coarse–grained, poorly sorted and generally pebbly quartz sandstone. Bioturbated in places (correlate of Moina Sandstone) (Osm).*

OWEN GROUP

- **€O** — *Pebble–cobble siliceous conglomerate and coarse–grained sandstone with abundant quartzite and chert clasts (€O).*

MIDDLE CAMBRIAN

Gog Range Greywackes — CORRELATE OF WESTERN VOLCANO–SEDIMENTARY SEQUENCE — MOUNT READ VOLCANICS

- **€dsvg** — *Marine volcano–sedimentary sequences of sandstone, siltstone, mudstone, conglomerate and breccia with some felsic to andesitic volcanic rocks (Gog Range Greywacke) (€dsvg).*
- **€dsvgg** — *Dominantly non–volcanic sandstone and siltstone, typically siliceous–micaceous, massive to thinly bedded (€dsvgg).*
- **€dsvgs** — *Coarse–grained polymict conglomerate, sandstone and lithicwacke with clasts of basalt, chert, siltstone and limestone (Sprent conglomerate) (€dsvgs).*
- **€dsvgv** — *Quartz–feldspar phyric pumiceous volcaniclastic sandstone and siltstone (€dsvgv).*
- **€dsvgsh** — *Laminated siltstone and mudstone with minor sandstone (€dsvgsh).*
- **€dsvgc** — *Dominantly siliceous conglomerate and sandstone, typically with quartzite and chert clasts. May include volcaniclastic detritus in places (€dsvgc).*

PALEOZOIC

MIDDLE CAMBRIAN

Alma formation — CORRELATE OF WESTERN VOLCANO–SEDIMENTARY SEQUENCE — MOUNT READ VOLCANICS

- **€dsvv** — *Predominantly fine grained ashy volcaniclastic siltstone, with minor black–grey siltstone (€dsvv).*
- **€dsvvpq** — *Quartz–feldspar phyric pumiceous volcaniclastic sandstone and siltstone (€dsvvpq).*
- **€dsvvp** — *Interbedded feldspar phyric volcaniclastic sandstone and pumiceous mass–flow deposits, commonly with perlitic dacite clasts (€dsvvp).*
- **€dsvld** — *Massive feldspar phyric dacite lava, commonly spherulitic, amygdaloidal and/or perlitic (€dsvld).*
- **€dsvvsh** — *Laminated siltstone and mudstone with minor sandstone (€dsvvsh).*
- **€dfp** — *Quartz–feldspar +/– biotite phyric rhyolite. Intrusive to locally extrusive (€dfp).*

€dsvk — Groove Creek formation (formerly Black River Beds)

- **€dsvvs** — *Predominantly micaceous greywacke and siltstone (€dsvvs).*
- **€dsvov** — *Predominantly feldspar +/– pyroxene phyric andesitic–dacitic volcaniclastic sandstone. Commonly pumiceous (€dsvov).*
- **€dsvlda** — *Massive feldspar +/– pyroxene phyric dacite to andesite lavas and intrusives (€dsvlda). Interbedded ashy volcaniclastic siltstone, greywacke and siltstone, pumiceous volcaniclastic sediments and dacite–andesite lavas and intrusives (€dsvx).*
- **€dsvov** — *Predominantly feldspar +/– pyroxene phyric andesitic–dacitic volcaniclastic sandstone. Commonly pumiceous (€dsvov).*
- **€dsvlda** — *Massive feldspar +/– pyroxene phyric dacite to andesite lavas and intrusives (€dsvlda).*
- **€dsvkv** — *Predominantly fine grained ashy volcaniclastic siltstone, with minor black–grey siltstone (€dsvkv).*
- **€dsvkss** — *Predominantly micaceous greywacke and siltstone (€dsvkss).*
- **€dsvov** — *Predominantly feldspar +/– pyroxene phyric andesitic–dacitic volcaniclastic sandstone. Commonly pumiceous (€dsvov).*
- **€dsvvp** — *Quartz–feldspar phyric pumiceous volcaniclastic sandstone (€dsvvp).*

?PROTEROZOIC TO ?EARLY PALEOZOIC

?PROTEROZOIC TO ?CAMBRIAN

CLEVELAND–DARWARAH AUGEN GNEISS

- **€cwb** — *Pillowed to massive fine– to medium–grained augite bearing tholeiitic basalt with intercalated volcaniclastic sandstone and conglomerate, mudstone and chert bearing breccia (Motton Metabasalt) (€cwb).*
- **€cwc** — *Pale to dark grey or black, distinctly bedded and plane–laminated to massive or brecciated chert with minor red and grey siliceous hematitic mudstone and siltstone (Barrington Chert) (€cwc).*
- **€cws** — *Red and grey siliceous hematitic mudstone and siltstone (€cws).*

PROTEROZOIC – PALEOZOIC

INTRUSIVE ROCKS

MIDDLE CAMBRIAN — MOUNT READ VOLCANICS

- **€dfp** — *Quartz–feldspar +/– biotite phyric rhyolite. Intrusive to locally extrusive (€dfp).*
- **€dsdiid** — *Massive plagioclase–hornblende phyric dioritic, andesitic and dacitic intrusives (Lobster Creek intrusives) (€dsdiid).*
- **€dsvlda** — *Massive feldspar +/– pyroxene phyric dacite to andesite lavas and intrusives (€dsvlda).*
- **€cwb** — *Pillowed to massive fine– to medium–grained augite bearing tholeiitic basalt with intercalated volcaniclastic sandstone and conglomerate, mudstone and chert bearing breccia (Motton Metabasalt) (€cwb).*

Geological boundary – position accurate or approximate.
Geological boundary – inferred.
Fault – position accurate or approximate.
Fault – inferred.
Fault – concealed.
Thrust fault (teeth on upper plate) – position accurate or approx.
(White line) *Limit of mapping of sub–unit within undifferentiated rock unit.*

Strike and dip of bedding, right way up.
Strike and dip of bedding, facing unknown.
Strike of vertical bedding, facing unknown.
Strike and dip of cleavage, type and relative age unspecified – dipping: vertical.
Strike and dip of dominant joint set.
Strike of dominant joint set, vertical.
Trend and plunge of minor fold hinge line, unspecified relative age.
Notable small outcrop with rock unit indicated
Field station for adjacent readings on the map.
Mineral deposit location – hardrock } *Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.*
Mineral deposit location – alluvial } *Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.*
Construction materials location – *Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.*

Compiled by M.J. Vicary, 2005 from the following sources (see Responsibility Diagram):

A VICARY, M.J. 2004. 1:25000 geological mapping and field checking (UR2006_01).

B BURNS, K.L. 1957. Geology of the Nook–Gunns Plains area. BSc (hons) thesis. University of Tasmania. TCR 57-185

C PORTER, T.M. 1974. E.L. 19/72 Dial Range, North West Tasmania. Progress Report CRA Exploration Pty Ltd. TCR 74-0992

D JENNINGS, I.B; BURNS, K.L; MAYNE, S.J. and ROBINSON, R.G. 1959. Geological atlas 1 mile series, Zone 7 Sheet 37 Sheffield. Tasmania Department of Mines.

E VICARY, M.J. 1995. Exploration Licence No. 42/92 Loongana Annual Report May 1994 - May 1995. RGC Exploration Pty Ltd. TCR 95-3728.

F VIVIAN, R.M. 1984. Final Report on Exploration Activities within EL 33/82, Paloona Northern Tasmania. Unpublished Report, Austamax Operations Proprietary Limited; Austamax Resources Limited. TCR 84-2297.

G CORBETT, K.D. 2003. Bedrock geological map of the Que River - Sheffield area, North West Tasmania. Mineral Resources Tasmania.

H VICARY, M.J. 2004. Air photograph and WTRMP geophysical data interpretation. (UR2005_05).

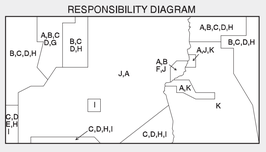
I PORTER, T.M. 1976. E.L. 19/72 Dial Range, North West Tasmania. Progress Report No 3. CRA Exploration Pty Ltd. TCR 76-1157.

Updated by:

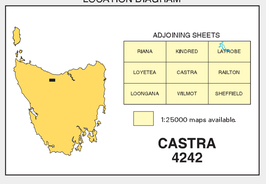
J VICARY, M.J. 2007. 1:25000 geological mapping as part of the TasExplore Project.

K McCLENAGHAN, M.P. 2007. 1:25000 geological mapping as part of the TasExplore Project.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



REFERENCE THIS MAP AS:
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Map produced by the Data Management Branch of Mineral Resources Tasmania using G.I.S. software.

AGD66 - AMG Zone 55. Contour Interval: 20 metres.

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