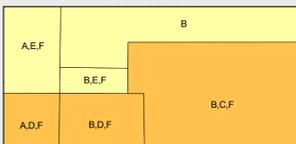


CENOZOIC		PERMIAN		PALEOZOIC	
QUATERNARY	<ul style="list-style-type: none"> Qha: Undifferentiated Quaternary sediments (Q). Qhm: Colluvium, derived from Mathinna Supergroup (Qhm). Qpao: Older alluvium of river terraces (Qpao). Qtpi: Gravel, sand and derived lag (Qtpi). 	<ul style="list-style-type: none"> Phs: Dominantly well-sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlamated carbonaceous shale, lesser conglomerate and rare coal (Phs). Phb: Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Phb). 	<ul style="list-style-type: none"> SDpa: Undifferentiated Upper Panama Group sandstone, siltstone, and mudstone, primarily turbiditic in origin. Contains graptolite fossils of Ludlow age (SDpa). SDpb: Metamorphosed by granitoid intrusion (SDpb). Dominantly medium- to fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Rare vascular plant fossils (possible corallites of <i>Soleidites</i> Sandstone) (SDpb). Metamorphosed by granitoid intrusion (SDpb). SDpc: Turbidite succession dominated by quartz-rich sandstones with minor siltstone and mudstone. Current related sedimentary structures abundant. Contains Devonian marine macrofossils, graptolites and vascular plant fossils (SDpc). Metamorphosed by granitoid intrusion (SDpc). SDpd: Turbidite succession dominated by quartz-rich sandstone with interbedded massive grey mudstones which locally predominate. Current related sedimentary structures common in coarser sandstones. No fossils recorded (SDpd). Metamorphosed by granitoid intrusion (SDpd). SDpe: Mappable mudstone within SDpc (SDpe). Metamorphosed by granitoid intrusion (SDpe). SDpf: Turbidite succession of fine-grained sandstone and cleaved siltstone. Subordinate very thick bedded massive sandstone increases toward west. Current related sedimentary structures common. No fossils recorded (SDpf). SDpg: Metamorphosed by granitoid intrusion (SDpg). Massive sandstone unit within SDpf (SDpg). SDqh: Dominantly foliated grey siltstone, with slate and rare fine-grained sandstone (SDqh). 	<ul style="list-style-type: none"> Phs: Dominantly well-sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlamated carbonaceous shale, lesser conglomerate and rare coal (Phs). Phb: Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Phb). 	<ul style="list-style-type: none"> SDpa: Undifferentiated Upper Panama Group sandstone, siltstone, and mudstone, primarily turbiditic in origin. Contains graptolite fossils of Ludlow age (SDpa). SDpb: Metamorphosed by granitoid intrusion (SDpb). Dominantly medium- to fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Rare vascular plant fossils (possible corallites of <i>Soleidites</i> Sandstone) (SDpb). Metamorphosed by granitoid intrusion (SDpb). SDpc: Turbidite succession dominated by quartz-rich sandstones with minor siltstone and mudstone. Current related sedimentary structures abundant. Contains Devonian marine macrofossils, graptolites and vascular plant fossils (SDpc). Metamorphosed by granitoid intrusion (SDpc). SDpd: Turbidite succession dominated by quartz-rich sandstone with interbedded massive grey mudstones which locally predominate. Current related sedimentary structures common in coarser sandstones. No fossils recorded (SDpd). SDpe: Mappable mudstone within SDpc (SDpe). Metamorphosed by granitoid intrusion (SDpe). SDpf: Turbidite succession of fine-grained sandstone and cleaved siltstone. Subordinate very thick bedded massive sandstone increases toward west. Current related sedimentary structures common. No fossils recorded (SDpf). SDpg: Metamorphosed by granitoid intrusion (SDpg). Massive sandstone unit within SDpf (SDpg). SDqh: Dominantly foliated grey siltstone, with slate and rare fine-grained sandstone (SDqh).

IGNEOUS ROCKS		MINOR GRANITIC INTRUSIONS		BLUE TIER BATHOLITH	
Dd	Dolerite dykes (Dd).	Dgm	Fine-grained quartz monzonite (Dgm).	Dgac	Coarse-grained, porphyritic (K-feldspar) to equigranular biotite-minor muscovite monzogranite (Dgac) (Poinena Granite; I-type).
Dpl	Quartz-feldspar porphyry (Dpl).	Dgpi	Coarse-grained, equigranular to porphyritic (K-feldspar) biotite ± hornblende monzogranite/diorite (Dgpi) (Hales New Country Granite; I-type).	Dgrv	Coarse- to fine-grained, variably porphyritic biotite-hornblende granodiorite (Dgrv) (Scamander Tier Granodiorite; I-type).
Dgac	Coarse-grained, porphyritic (K-feldspar) to equigranular biotite-minor muscovite monzogranite (Dgac) (Poinena Granite; I-type).	Dgpi	Coarse-grained, equigranular to porphyritic (K-feldspar) biotite ± hornblende monzogranite/diorite (Dgpi) (Hales New Country Granite; I-type).	Dgpc	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite (Dgpc).
Dgpi	Coarse-grained, equigranular to porphyritic (K-feldspar) biotite ± hornblende monzogranite/diorite (Dgpi) (Hales New Country Granite; I-type).	Dgpc	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite (Dgpc).	Dgai	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite, with numerous intrusions of fine- to medium-grained pink biotite granite (Dgai) (Dgai; Dgai = Mt Pearson Granite; I-type).
Dgpc	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite (Dgpc).	Dgai	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite, with numerous intrusions of fine- to medium-grained pink biotite granite (Dgai) (Dgai; Dgai = Mt Pearson Granite; I-type).	Dgap	Generally pink coarse-grained porphyritic to seriate to equigranular biotite-minor muscovite granodiorite/biotite granite, with abundant minor intrusions of fine-grained pink biotite granite (Dgap) (Constable Creek phase of Mt Pearson Granite; I-type).
Dgai	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite, with numerous intrusions of fine- to medium-grained pink biotite granite (Dgai) (Dgai; Dgai = Mt Pearson Granite; I-type).	Dgap	Generally pink coarse-grained porphyritic to seriate to equigranular biotite-minor muscovite granodiorite/biotite granite, with abundant minor intrusions of fine-grained pink biotite granite (Dgap) (Constable Creek phase of Mt Pearson Granite; I-type).	Dgra	Medium-grained, equigranular to rarely porphyritic (K-feldspar) hornblende-biotite granodiorite. Locally with a strong grain foliation. Variable but usually strongly magnetic (susceptibility typically 0.002 to 0.008 SI) (Dgra).
Dgap	Generally pink coarse-grained porphyritic to seriate to equigranular biotite-minor muscovite granodiorite/biotite granite, with abundant minor intrusions of fine-grained pink biotite granite (Dgap) (Constable Creek phase of Mt Pearson Granite; I-type).	Dgra	Medium-grained, equigranular to rarely porphyritic (K-feldspar) hornblende-biotite granodiorite. Locally with a strong grain foliation. Variable but usually strongly magnetic (susceptibility typically 0.002 to 0.008 SI) (Dgra).	Dgrw	Medium-grained, equigranular to rarely porphyritic (K-feldspar) hornblende-biotite granodiorite. Locally with a strong grain foliation. Weakly magnetic (susceptibility < 0.0005 SI) (Dgrw) (Dgrw; Dgrw = Devonian Granodiorite; I-type).
Dgra	Medium-grained, equigranular to rarely porphyritic (K-feldspar) hornblende-biotite granodiorite. Locally with a strong grain foliation. Variable but usually strongly magnetic (susceptibility typically 0.002 to 0.008 SI) (Dgra).	Dgrw	Medium-grained, equigranular to rarely porphyritic (K-feldspar) hornblende-biotite granodiorite. Locally with a strong grain foliation. Weakly magnetic (susceptibility < 0.0005 SI) (Dgrw) (Dgrw; Dgrw = Devonian Granodiorite; I-type).	Dgdc	Coarse-grained diorite, consisting of amphibole biotite ± plagioclase ± clinopyroxene ± orthopyroxene ± olivine or quartz, occurring with SDpm as possible reefs in Dgpc (Dgdc) (Hegans Reef Diorite).

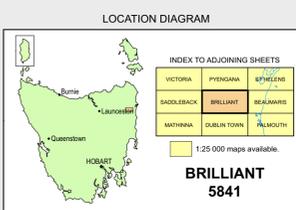
CONTACTS		FAULTS		LINEARS	
—	Geological contact.	—	Fault.	—	Axial surface trace of major F ₁ anticline.
---	Geological contact - inferred.	---	Fault - inferred.	—	Axial surface trace of major F ₁ syncline.
---	Geological contact - inferred from magnetic data.	.....	Fault - concealed.	—	Lineament - visible in magnetic data.
---	Geological contact - inferred from radiometric data.	.....	Thrust fault (teeth on upper plate) - inferred.	—	Lineament - visible in magnetic data.
---	Transitional geological contact.	.....	Strike-slip fault (sinistral) - inferred.	—	Lineament - visible in magnetic data.
---	Unconformable lithological contact.	.....	Strike-slip fault (sinistral) - inferred.	—	Lineament - visible in magnetic data.
---	Metamorphic contact.	.....	Strike-slip fault (sinistral) - inferred.	—	Lineament - visible in magnetic data.
---	Igneous intrusive contact.	.....	Strike-slip fault (sinistral) - inferred.	—	Lineament - visible in magnetic data.
---	Limit of mapping of sub-unit within undifferentiated rock unit.	.....	Strike-slip fault (sinistral) - inferred.	—	Lineament - visible in magnetic data.

DEVIATION (?)		MIDDLE DEVONIAN		LOWER DEVONIAN	
—	Strike and dip of bedding - right way up; vertical, facing indicated by single tic; overturned, facing unknown; vertical.	—	Trend and plunge of lineation L ₁ formed by intersection of cleavages or foliations of relative local ages S ₁ and S ₂ .	—	Trend and plunge of minor fold hinge line, relative local age F ₁ , with dip and dip direction of axial surface, relative local age F ₁ .
—	Strike and dip of cleavage of unspecified type and relative age.	—	Trend and plunge of minor fold hinge line, with dip and dip direction of axial surface.	—	Trend and plunge of minor fold hinge line, unspecified relative age, vergence sinistral, with dip and dip direction of axial surface, vertical.
—	Strike and dip of cleavage - relative local age S ₁ , S ₂ .	—	Trend and plunge of minor fold hinge line, with dip and dip direction of axial surface.	—	Trend and plunge of minor fold hinge line, symmetrical, with dip and dip direction of axial surface.
—	Strike and dip of penetrative cleavage, vertical.	—	Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface.	—	Trend and plunge of minor fold hinge line, with dip and dip direction of axial surface.
—	Trend and plunge of lineation L ₁ formed by intersection of cleavages or foliations of relative local ages S ₁ and S ₂ .	—	Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface, antiform, with dip and dip direction of axial surface.	—	Generalised paleocurrent direction, showing sense of movement.
—	Trend and plunge of minor fold hinge line, relative local age F ₁ , with dip and dip direction of axial surface, relative local age F ₁ .	—	Strike and dip of outcrop - scale fault of unspecified relative age - thrust, type unspecified.	—	Strike and dip of foliation due to alignment of K-feldspar phenocrysts in granitic rock.
—	Trend and plunge of minor fold hinge line, unspecified relative age, vergence sinistral, with dip and dip direction of axial surface, vertical.	—	Fluid station for adjacent reefs on the map.	—	Mineral deposit location - hardrock.
—	Trend and plunge of minor fold hinge line, with dip and dip direction of axial surface.	—	Mineral deposit location - alluvial/sandstone.	—	Construction materials/industrial mineral/gemstone location.
—	Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface.	—	Mineral deposit location - alluvial/sandstone.	—	Construction materials/industrial mineral/gemstone location.
—	Trend and plunge of minor fold hinge line, with dip and dip direction of axial surface.	—	Mineral deposit location - alluvial/sandstone.	—	Construction materials/industrial mineral/gemstone location.



Highly detailed (eg. more detailed than 1:25 000 scale mapping).
Detailed systematic (eg. 1:25 000 map or equivalent detail).
Regional systematic (eg. 1:50 000, 1:63 360 map or equivalent detail).
Regional mapping less detailed than 1:63 360 map or equivalent (all other scales).
Reconnaissance mapping with sparse ground traverses.
Remote sensing and/or geophysical interpretation with limited or no ground information.

Compiled by M.P. McClenaghan, B.Sc. (Hons), Ph.D. 2004 from the following sources (see source diagram):
A. McCLENGHAN, M.P., EVERARD, J.L.E., GOSCOMBE, B.D., FINLAY, R.H. and CALDER, C.R. 1993. Geological Atlas 1:50 000 Series, Sheet 60 (D4153), Altonia. Mineral Resources Tasmania.
B. McCLENGHAN, M.P., TURNER, N.J. and WILLIAMS, P.R. 1987. Geological Atlas 1:50 000 Series, Sheet 41 (85153), St. Helens.
Updated by:
C. M. Worthing 2008-2010. Stratigraphic revision and re-mapping of Mathinna Supergroup, supported by airborne geophysical data, as part of the TasExplore Project. Mineral Resources Tasmania.
D. I. Woolward 2008-2010. Stratigraphic revision and re-mapping of Mathinna Supergroup, supported by airborne geophysical data, as part of the TasExplore Project. Mineral Resources Tasmania.
E. I. Woolward 2008-2010. Minor modifications to previous mapping, supported by airborne geophysical data.
F. WORTHING, M.A. and WOOLWARD, I.R. 2010. Explanatory Report for the Dublin Town (5840), Brilliant (5841), Falmouth (6040) and Beaumaris (6041) geological map sheets, 1:25 000 Scale Digital Geological Map Series, Explanatory Report 3.



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Map produced by Spatial Information Services, Mineral Resources Tasmania.
Website: www.mrt.tas.gov.au
GDSM - MGA Zone 55. Contour Interval: 20 metres.

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