



CENOZOIC	QUATERNARY	
	Qha	Stream alluvium, swamp and marsh deposits (Qha).
Qpao	Older alluvium of river terraces (Qpao).	
PALEOGENE - NEOGENE	TRIASIC	
	Opao	Talus consisting dominantly of dolerite boulders (Opao); of Triassic basalt (Opbb); of Triassic lithic sandstone (Opst).
Tb	Basalt (Tb).	
Ts	Quartzose sand and gravel (Ts).	
TQpl	Gravel, sand and derived lag (TQpl).	
MESOZOIC	TRIASIC	
	Rvcl	Dominantly lithic sandstone with minor mudstone and coal (Rvcl).
Rvcm	Dominantly mudstone (Rvcm).	
Rb	Alkali olivine basalt/hawaiite (Rb).	
Rvcq	Interbedded cross-bedded white quartzose sandstone, quartz-rich lithic sandstone, siltstone and mudstone (Rvcq).	
Rbm	Alkali olivine basalt/hawaiite with plagioclase megacrysts (Rbm).	

PERMIAN	MIDDLE DEVONIAN	
	P	Undifferentiated Permian-Carboniferous sediments (P). Undifferentiated unfossiliferous, poorly sorted mudstone and poorly sorted glauconitic sandstone (Pug). Poorly sorted grey mudstone, siltstone and rare siltstone, unfossiliferous except for rare forams (Pup).
Pst	Thickly bedded usually poorly sorted sandstone passing upwards into interbedded sandstone, siltstone and mudstone. Marine fossils abundant in places (Pst).	
Pfs	Marine limestone, calcareous mudstone and sandstone; usually richly fossiliferous (Pfs).	
DEVONIAN	LOWER DEVONIAN	
	Dpr	Dominantly well sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlaminated carbonaceous shale lesser conglomerate and rare coal (Dpr).
Dpb	Brecciated and undisturbed layers of interbedded quartzite and mudstone (Dpb). (Dpr: Dpb - St Marys Porphyry).	
SILURIAN (?) - DEVONIAN	LOWER DEVONIAN	
	SDp	Undifferentiated Upper Permian Group sandstone, siltstone, and mudstone, primarily turbidite in origin (SDp). Contains graptolite fossils of Ludlow age (SDpa). Dominantly turbidite quartzite sandstone with some interbedded siltstone. Rare vascular plant fossils (possible correlate of Siding Sandstone) (SDps). Turbidite succession dominated by quartz-rich sandstone with minor siltstone and mudstone. Current related sedimentary structures abundant. Contains Devonian marine macrofossils, graptolites and vascular plant fossils (Dpsf). (Dpsf: Scamander Formation).
SDps	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 (SDps). Mappable mudstone within SDps (SDpsp).	
SDpsp	Faulted contact.	
SDpsm	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 (SDpsm). Metamorphosed by granitoid intrusion (SDpm). Massive sandstone unit within SDps (SDpsm). Metamorphosed by granitoid intrusion (SDpsm).	
SDpl	Dominantly foliated grey siltstone, with silt and rare fine-grained sandstone (SDpl).	

CENOZOIC	PALEOGENE - NEOGENE	
	Tb	Basalt (Tb); quartz tholeiite (Tbt), olivine tholeiite (Tbt) and basaltite (Tbo) indicated; basaltite dated at 41.0 ± 0.2 Ma (ArAr) near 582 700mE S 403 700mN.
Jd	Dolerite (Jd).	
Tb	Alkali olivine basalt/hawaiite (Tb).	
Rbm	Alkali olivine basalt/hawaiite with plagioclase megacrysts (Rbm). Dated at 233 ± 0.6 Ma (KAr) near 583 300mE S 403 100mN.	

IGNEOUS ROCKS	
Tb	Basalt (Tb); quartz tholeiite (Tbt), olivine tholeiite (Tbt) and basaltite (Tbo) indicated; basaltite dated at 41.0 ± 0.2 Ma (ArAr) near 582 700mE S 403 700mN.
Jd	Dolerite (Jd).
Tb	Alkali olivine basalt/hawaiite (Tb).
Rbm	Alkali olivine basalt/hawaiite with plagioclase megacrysts (Rbm). Dated at 233 ± 0.6 Ma (KAr) near 583 300mE S 403 100mN.
MINOR GRANITIC INTRUSIONS	
Dgf	Quartz-feldspar porphyry (Dgf).

BLUE TIER BATHOLITH	
Dpr	Two pyroxene bearing, quartz porphyry with very fine-grained groundmass. Single cooling unit of rhyolite, with sporadic basal rhyolitic pyroclastic, crystal-lithic-tuff preserved at base (Dpr). (Dpr - St Marys Porphyry).
Dgry	Variously porphyritic coarse- to fine-grained hornblende granodiorite (Dgry). Porphyritic, biotite-hornblende-trace pyroxene microgranodiorite (Dgrrp). (Dgrrp - Scamander Tier Granodiorite).
Dgpl	Coarse-grained, porphyritic to seriate to equigranular biotite-minor muscovite monzogranite with numerous intrusions of fine- to medium-grained pink biotite granite (Dgpl).

CONTACTS	
—	Geological contact.
---	Geological contact - inferred.
---	Geological contact - inferred from magnetic data.
---	Unconformable lithological contact.
---	Metamorphic contact.
---	Igneous intrusive contact.
---	Limit of mapping of sub-unit within undifferentiated rock unit.
FAULTS	
---	Fault.
---	Fault - inferred.
---	Fault - concealed.
---	Normal fault (downthrown side indicated).
---	Normal fault (downthrown side indicated) - concealed.
---	Thrust fault (teeth on upper plate) - inferred.
---	Strike-slip fault (sinistral).
LINEARS	
---	Lineament - visible in magnetic data.

SOURCE DIAGRAM	
A.F.G	B.F.G
C	D
	E.G
	D.E.G

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Dgry	Variously porphyritic coarse- to fine-grained hornblende granodiorite (Dgry). Porphyritic, biotite-hornblende-trace pyroxene microgranodiorite (Dgrrp). (Dgrrp - Scamander Tier Granodiorite).
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REFERENCES	
A	MACLEAGHAN, M.P., EVERARD, J.L.E., GOSCOMBE, B.D., FINDLAY, R.H. and CALVER, C.R. 1993. Geological Atlas 1:50 000 Series, Sheet 48 (84/153), Aberton.
B	MACLEAGHAN, M.P., TURNER, N.J. and WILLIAMS, P.R. 1987. Geological Atlas 1:50 000 Series, Sheet 41 (85/155), St. Helens.
C	CALVER, C.R., EVERARD, J.L., FINDLAY, R.H. and LENNOX, P.G. 1988. Geological Atlas 1:50 000 Series, Sheet 48 (84/149), Ben Lomond.
D	TURNER, N.J., CALVER, C.R., CASTLEDEN, R.H. and BAILLIE, P.W. 1984. Geological Atlas 1:50 000 Series, Sheet 49 (85/14N), St Marys.

REFERENCES	
E	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.
F	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.
G	WORTHING, M.A. and WOOLWARD, I.R. 2010. Explanatory Report for the Dublin Town (5840), Brilliant (5841), Fairmount (6040) and Beaumonts (6041) geological map sheets, 1:25 000 Scale Digital Geological Map Series, Exploratory Report 3.

REFERENCES	
WORTHING, M.A. and WOOLWARD, I.R. (compilers) 2010. Digital Geological Atlas 1:25 000 Series, Sheet 5840 Dublin Town, Mineral Resources Tasmania.	
Base data from the LIST, Copyright State of Tasmania.	
Map produced by Spatial Information Services, Mineral Resources Tasmania.	
Website: www.mrt.tas.gov.au	
GDSM - MGA Zone 55. Contour Interval: 20 metres.	

REFERENCES	
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