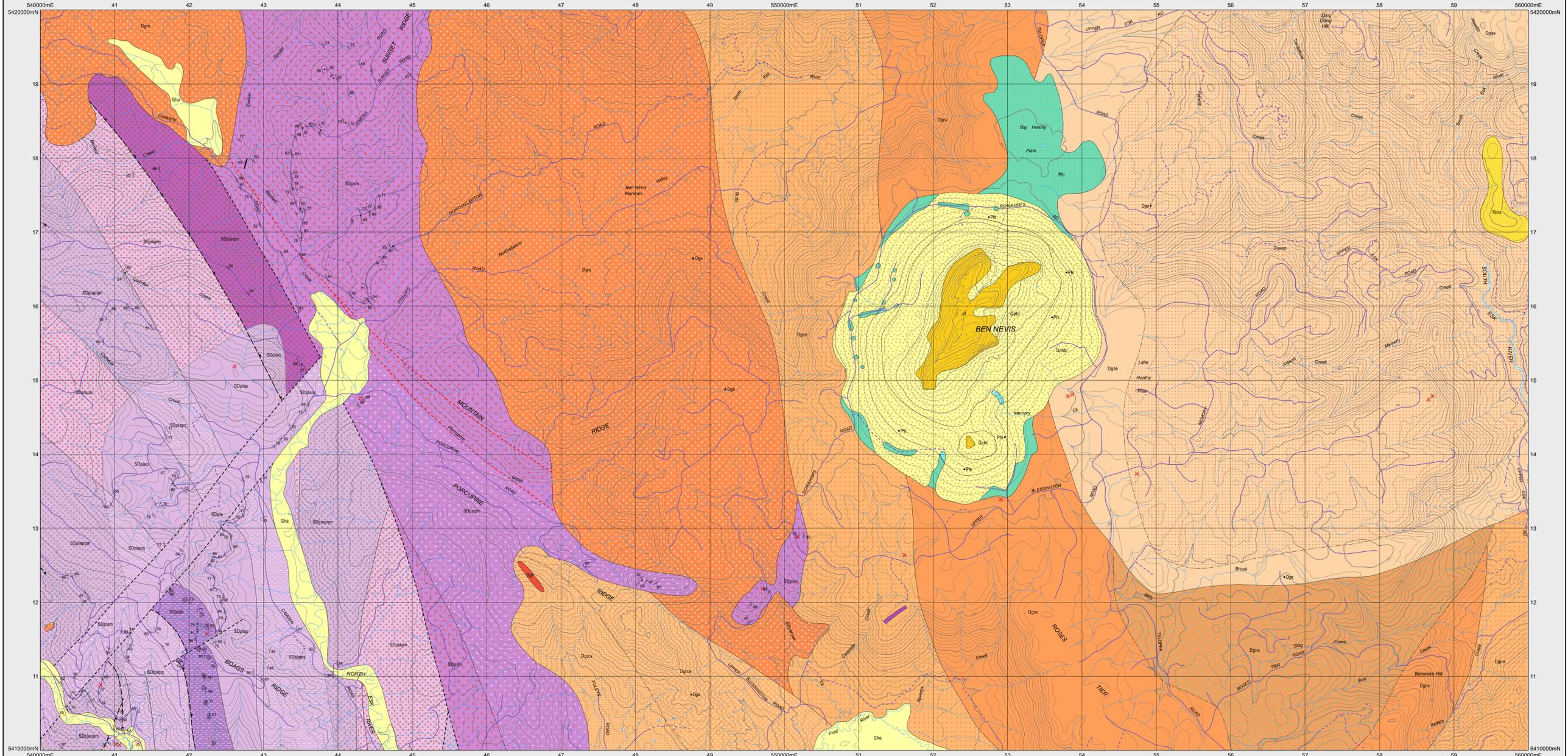


BEN NEVIS

Scale 1:25 000

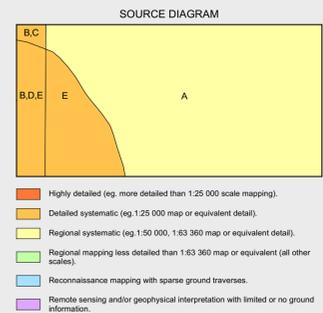


CENOZOIC		CENOZOIC	
QUATERNARY	PLEISTOCENE	QUATERNARY	PLEISTOCENE
Qha	Stream alluvium, swamp and marsh deposits (Qha).	Qha	Stream alluvium, swamp and marsh deposits (Qha).
Qopta	Talus consisting dominantly of dolerite boulders (Qopta). Talus consisting dominantly of dolerite and subordinate Lower Permian rocks (Qopta).	Qopta	Talus consisting dominantly of dolerite boulders (Qopta). Talus consisting dominantly of dolerite and subordinate Lower Permian rocks (Qopta).
Qpaa	Older alluvium of river terraces (Qpaa).	Qpaa	Older alluvium of river terraces (Qpaa).
Tbnx	Olivine nephelinite with ilmenite nodules (Tbnx).	Tbnx	Olivine nephelinite with ilmenite nodules (Tbnx).
----- Unconformity.			
PERMIAN		PERMIAN	
Pudm	Mudstone siltstone and poorly sorted sandstone. Uncommon marine fossils (Pudm).	Pudm	Mudstone siltstone and poorly sorted sandstone. Uncommon marine fossils (Pudm).
Pfs	Dominantly well sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlamated carbonaceous shale lesser conglomerate and rare coal (Pfs).	Pfs	Dominantly well sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlamated carbonaceous shale lesser conglomerate and rare coal (Pfs).
Pfb	Poorly sorted pebbly mudstone, sandstone and minor conglomerate marine fossils present in places (Pfb).	Pfb	Poorly sorted pebbly mudstone, sandstone and minor conglomerate marine fossils present in places (Pfb).
----- Unconformity.			
PALEOZOIC		PALEOZOIC	
SILURIAN(?) - LOWER DEVONIAN	DEVONIAN	SILURIAN(?) - LOWER DEVONIAN	DEVONIAN
SDpsm	Dominantly fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Contains vascular plant fossil fragments, contact metamorphosed by granitic intrusion (SDpsm). Medium- to fine-grained turbiditic, quartz-rich sandstone with interbedded laminated siltstone, contact metamorphosed by granitic intrusion (SDpsm).	SDpsm	Dominantly fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Contains vascular plant fossil fragments, contact metamorphosed by granitic intrusion (SDpsm). Medium- to fine-grained turbiditic, quartz-rich sandstone with interbedded laminated siltstone, contact metamorphosed by granitic intrusion (SDpsm).
SDpaa	Thin-bedded siltstone, with interbedded fine-grained quartz-rich sandstone increasing towards top (SDpaa), contact metamorphosed by granitic intrusion (SDpaa).	SDpaa	Thin-bedded siltstone, with interbedded fine-grained quartz-rich sandstone increasing towards top (SDpaa), contact metamorphosed by granitic intrusion (SDpaa).
SDpba	Dominantly thin-bedded siltstone with minor quartz-rich sandstone (SDpba), contact metamorphosed by granitic intrusion (SDpba).	SDpba	Dominantly thin-bedded siltstone with minor quartz-rich sandstone (SDpba), contact metamorphosed by granitic intrusion (SDpba).
SDpca	Fine- to medium-grained quartz-rich sandstone unit within SDpba (SDpca), contact metamorphosed by granitic intrusion (SDpca).	SDpca	Fine- to medium-grained quartz-rich sandstone unit within SDpba (SDpca), contact metamorphosed by granitic intrusion (SDpca).
SDpda	Interbedded thin-bedded siltstone and fine-grained quartz-rich sandstone within SDpba (SDpda), contact metamorphosed by granitic intrusion (SDpda).	SDpda	Interbedded thin-bedded siltstone and fine-grained quartz-rich sandstone within SDpba (SDpda), contact metamorphosed by granitic intrusion (SDpda).
SDpda	Grey and black shale with graptolite fossils of Ludlow age and interbedded turbidite siltstone unit within SDpba (SDpda).	SDpda	Grey and black shale with graptolite fossils of Ludlow age and interbedded turbidite siltstone unit within SDpba (SDpda).
SDpda	(Spla, SDplam, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap - possible correlates of Lower Silurian Siltstone).	SDpda	(Spla, SDplam, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap, SDplap - possible correlates of Lower Silurian Siltstone).

MESOZOIC CENOZOIC		MESOZOIC CENOZOIC	
PALEOCENE	NEOGENE	PALEOCENE	NEOGENE
Tbnx	Olivine nephelinite with ilmenite nodules (Tbnx). Ar-Ar radiometric age 17.5±0.2 and 16.3±0.2 Ma from hornblite 559 532m; 5 417 980m and zirconite 559 592m; 5 417 373m respectively.	Tbnx	Olivine nephelinite with ilmenite nodules (Tbnx). Ar-Ar radiometric age 17.5±0.2 and 16.3±0.2 Ma from hornblite 559 532m; 5 417 980m and zirconite 559 592m; 5 417 373m respectively.
Jd	Dolerite (Jd).	Jd	Dolerite (Jd).
Dd	Dolerite (Dd).	Dd	Dolerite (Dd).
MINOR GRANITIC INTRUSIONS			
Dgf	Quartz-feldspar porphyry (Dgf).	Dgf	Quartz-feldspar porphyry (Dgf).
Dge	Aplitic granite (Dge).	Dge	Aplitic granite (Dge).
SCOTTSDALE BATHOLITH			
Dgae	Medium- to coarse-grained, dominantly equigranular, leucocratic biotite syenogranite/monzogranite with pale pink feldspar (Dgae) (central phase of Tombstone Creek Granite; I-type).	Dgae	Medium- to coarse-grained, dominantly equigranular, leucocratic biotite syenogranite/monzogranite with pale pink feldspar (Dgae) (central phase of Tombstone Creek Granite; I-type).
Dgaa	Fine- to coarse-grained, sparsely to moderately porphyritic quartz and K-feldspar biotite alkali feldspar granitogranite (Dgaa) (marginal phase of Tombstone Creek Granite; I-type).	Dgaa	Fine- to coarse-grained, sparsely to moderately porphyritic quartz and K-feldspar biotite alkali feldspar granitogranite (Dgaa) (marginal phase of Tombstone Creek Granite; I-type).
Dgna	Medium- to coarse-grained, variably equigranular, seriate or granitic porphyritic (K-feldspar plagioclase to 50mm); biotite a hornblende monzogranite/granodiorite (Dgna), variety with very abundant fine- to coarse-grained quartz diorite enclaves (Dgna) (Dgna, Dgna; Hogarth Road Granite; I-type).	Dgna	Medium- to coarse-grained, variably equigranular, seriate or granitic porphyritic (K-feldspar plagioclase to 50mm); biotite a hornblende monzogranite/granodiorite (Dgna), variety with very abundant fine- to coarse-grained quartz diorite enclaves (Dgna) (Dgna, Dgna; Hogarth Road Granite; I-type).
Dgnc	Coarse- to very coarse-grained, equigranular biotite a hornblende monzogranite/granodiorite (Dgnc) (Russell Road Granite; I-type).	Dgnc	Coarse- to very coarse-grained, equigranular biotite a hornblende monzogranite/granodiorite (Dgnc) (Russell Road Granite; I-type).
Dgnc	Coarse-grained, equigranular to seriate (K-feldspar), biotite-hornblende granodiorite (Dgnc); very coarse-grained (>10mm) variety (Dgnc) (Dgnc, Dgnc - Upper Blessington pluton; I-type).	Dgnc	Coarse-grained, equigranular to seriate (K-feldspar), biotite-hornblende granodiorite (Dgnc); very coarse-grained (>10mm) variety (Dgnc) (Dgnc, Dgnc - Upper Blessington pluton; I-type).
Dgnc	Medium- to coarse-grained, equigranular, biotite-hornblende granodiorite (Dgnc) (Porcupine Creek Granodiorite in east and Diddams Granodiorite in west; I-type).	Dgnc	Medium- to coarse-grained, equigranular, biotite-hornblende granodiorite (Dgnc) (Porcupine Creek Granodiorite in east and Diddams Granodiorite in west; I-type).

CONTACTS	
—	Geological contact.
- - -	Transitional geological contact.
—	Metamorphic contact.
—	Limit of mapping of sub-unit within undifferentiated rock unit.
FAULTS	
- - - - -	Fault - inferred.
- - - - -	Fault - inferred from magnetic data.
- - - - -	Normal fault (downthrown side indicated).
- - - - -	Normal fault (downthrown side indicated) - inferred.
- - - - -	Thrust fault (teeth on upper plate).
LINEARS	
—	Axial surface trace of major anticline.

—	Strike and dip of bedding; right way up; overturned; facing unknown.
—	Strike and dip of vertical bedding, facing unknown.
—	Strike and dip of cleavage of unspecified type and relative age; vertical.
—	Strike and dip of outcrop-scale fault of unspecified relative age, type unspecified.
•	Field station for adjacent readings on the map.
•	Notable small outcrop with rock unit indicated.
•	Notable small float or lag occurrence with rock unit indicated.
•	Macrofossil location.
•	Mineral deposit location - hardrock.
•	Construction material/industrial mineral/gemstone location.



Compiled by M.P. McClenaghan, B.Sc.(Hons), Ph.D., 2005 from the following sources (see source diagram):
A. MACLENGHAN M.P., EVERARD J.L., GOSCOMBE B.D., FINDLAY R.H., CALVER C.R. 1993. Geological Atlas 1:50 000 Series, Sheet 40 (84150), Alberton. Tasmania Department of Mines.
B. LONGMAN M.J., MATTHEWS W.L., ROWE S.M. 1964. Geological Atlas 1:63 360 Series, Sheet 39 (85133), Launceston. Tasmania Department of Mines.
C. Additional mapping by M.P. McClenaghan 2005.
D. Additional mapping by M.P. McClenaghan and D.B. Seymour 2005.
Updated by:
E. D.C. Green, 2011. 1:25 000 scale geological mapping and interpretation of airborne geophysical data as part of the TasExplore project.

REFERENCE THIS MAP AS:
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Base data from the LIST, Copyright State of Tasmania.
Map produced by Spatial Information Services, Mineral Resources Tasmania.
Website: www.mrt.tas.gov.au
GDA94 - MGA Zone 55. Contour Interval: 20 metres.
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