

### COMPOSITE LEGEND FOR PORT SORELL NORTH AND PORT SORELL SOUTH

PERIOD	UNIT CODE	DESCRIPTION
CEANOZOIC	Qhbd, Qhb	Undifferentiated sand, gravel and clay of alluvial, lacustrine and littoral origin (Qh). Dune and beach sand and beach gravel (Qhb). Beach sand (Qhb).
	Qhwr	Sand of stabilised longitudinal beach ridges (Qhwr).
	Qh	Stream alluvium, swamp and marsh deposits (Qh).
	Qha	Colluvium (Qha).
	Qhc	Paralic clay, silt, sand and minor gravel deposits of modern silt marsh and associated tidal flats (Qhc).
	Qhs	Older stabilised aeolian sand of coastal plain, with underlying marine sands in places (Qhs).
	Qpsa	Older stabilised aeolian sand of coastal plain, with underlying marine sands in places (Qpsa).
	Qpsb	Coastal fine-grained sand and pebbly sand (Qpsb).
	TQq	Undifferentiated sand and gravel deposits (TQq).
	TQgr	Rounded gravel, mainly vein quartz (TQgr).
	Tcs	Semiconsolidated siliceous gravel and fine-grained sand (Tcs).
	Tcl	Siliceous conglomerate and coarse-grained sandstone, cemented with iron oxides in places (Tcl).
	Th	Plagioclite ironstone (Th).
	Ts	Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts). Basalt (Tb).
	Tscb	Quartz sandstone and siltstone with common plant matter (Tscb).
PALEOZOIC	Tso	Sand, quartzite gravel and clay, including interbasalt deposits (Wesley Vale Sand) of Oligocene age (Tso). Non-vascular to highly vascular and angiospermoid, in places deeply-weathered, alkali-cline basalt, with minor volcanic sandstone and breccia, dated at 38.1 ± 0.6 Ma (Thirlstone Basalt) (Tso).
	Tbsl	Erosional surface.
	Ph	Quartz sandstone and shales, carbonaceous in some places, and minor conglomerate (Ph).
	Pim	Mudstone, pebbly siltstone and sandstone (Pim). Tillite (Pt). (Pim, Pt) = Massey Creek Group.
	Pi	Mudstone, pebbly siltstone and sandstone (Pim). Tillite (Pt). (Pim, Pt) = Massey Creek Group.
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NEOPROTEROZOIC	Cds	Slate with lesser sandstone. Possible correlate of Blyths Creek Formation (Cds).
	Cdic	Laminated, commonly brecciated chert (Cdic).
	Pdp	Undifferentiated sequences of predominantly mudstone, shale, slate and phyllite, with sandstone, siltstone, chert, basalt, dolostone, conglomerate and calciclastic, strongly faulted in most areas (Port Sorell Formation) (Pdp).
	Pdpc	Cataclastic and tectonic melange (Pdpc).
	Pdpb	Basalt (Pdpb); porphyritic basalt (Pdpbp).
	Pdpv	Mafic-volcaniclastic sandstone, siltstone and shale, with minor conglomerate (Pdpv).
	Pdps	Dolostone interbedded with chert and shale (Pdps).
	Pdpcp	Chert, thinly interbedded with shale in most areas (Pdpcp).
	Pdpp	Laminated black to grey-green shale with minor siltstone, chert and dolostone, lacking sandstone (Pdpp).
	Pdpm	Interbedded muscovite quartz sandstone and shale (Pdpm).
PALEOZOIC	Pdps	Dominantly black shale, with minor sandstone, siltstone, chert, dolostone and basalt (Pdps).
	Pdpc	Laminated mudstone, slate and siltstone, with lesser interbedded quartzites (Pdpc).
PALEOZOIC	Poh	Sandstone, slate and phyllite (Poh).

### INTRUSIVE ROCKS

Jd	Dolerite and related rocks (Jd).
Cac	Monite to gabbroite (Cac).
Cema	Serpentine with amphibole (Cema).
Pdpb	Basalt (Pdpb); porphyritic basalt (Pdpbp).
Pdpv	Mafic-volcaniclastic sandstone, siltstone and shale, with minor conglomerate (Pdpv).
Pdpd	Dolerite (Pdpd).

### CONTACTS

Geological contact

Geological contact - inferred

Limit of detailed mapping

### FAULTS

Fault

Fault - inferred

Fault - concealed

Normal fault (downthrown side indicated)

Thrust fault (teeth on upper plate)

Thrust fault (teeth on upper plate) - inferred

### LINEARS

Axial surface trace of major early overturned antiform

Axial surface trace of major early overturned synform

Axial surface trace of major later antiform

Axial surface trace of major later synform

Lineament - visible on aerial photographs

Lineament - visible in magnetic data

Magnetic gradient or lineament (direction towards lower values indicated)

Lithological trend line, including bedding trace interpreted from aerial photographs

Tectonic foliation trend line

### CONTACTS

Strike and dip of bedding - right way up; overturned; facing unknown; vertical; horizontal

Strike and dip of compositional layering

Strike and dip of cleavage of unspecified type and relative age

Strike and dip of cleavage, relative local age S<sub>1</sub>; S<sub>2</sub>; S<sub>3</sub> vertical; S<sub>4</sub>; S<sub>5</sub> vertical; S<sub>6</sub>

Strike and dip of crenulation cleavage

Strike of outcrop-scale fault with dip indicated; thrust fault

Strike and dip of cataclastic foliation

Trend and plunge of minor fold hinge line, unspecified relative age

Trend and plunge of minor fold hinge line, relative local age F<sub>1</sub>; F<sub>2</sub> dextral vergence; F<sub>3</sub> sinistral vergence; F<sub>4</sub>; F<sub>5</sub>

F<sub>1</sub>; F<sub>2</sub> with dip direction of axial surface; F<sub>3</sub> dextral vergence; with dip direction of axial surface; F<sub>4</sub> sinistral vergence

Trend and plunge of hinge line of downward-facing minor fold, relative local age F<sub>1</sub>; F<sub>2</sub> vergence sinistral; relative local age F<sub>3</sub>

Field station for adjacent readings on the map

Notable small outcrop with rock unit indicated

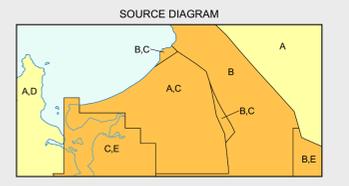
Mineral deposit location - hardrock

Mineral deposit location - alluvial/alluvial

Construction materials/industrial mineral/gemstone location

**REFERENCE THIS MAP AS:**  
REED, A.R. and CALVER, C.R. (compilers) 2002. Digital Geological Atlas 1:25 000 Scale Series, Sheet 4644 Port Sorell. 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  
GDAS - MGA Zone 55. Contour Interval: 20 metres.

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Compiled by A.R. Reed, B.Sc.(Hons), Ph.D. and C.R. Calver, B.Sc.(Hons), Ph.D., 2002 from the following sources (see source diagram):  
A. GEE, R.D., LEGGE, P.J. 1971. Geological Atlas 1:63 360 Series, Sheet 30 (821N), Beaconsfield. Tasmania Department of Mines.  
B. A.R. Reed, 1998-2000, new mapping.  
C. R. Calver, 1998-2000, new mapping.  
D. W.C. CROMER 1983. Geology and groundwater resources of the Devonport-Port Sorell-Sassafras Tertiary Basin. Geological Survey Bulletin 67.  
Updated by:  
E. M. Vicary 2004, as part of the Western Tasmania Regional Minerals Program, with additional data from Calver, C. and Reed, A.R., Chapter 7, Port Sorell Formation, in Reed, A.R. (2007). Structure and setting of Proterozoic and Palaeozoic rocks in the Tamar Region, Northern Tasmania. Geol. Soc. Aust. Specialist Group in Tectonics and Structural Geology Field Guide No 9.

