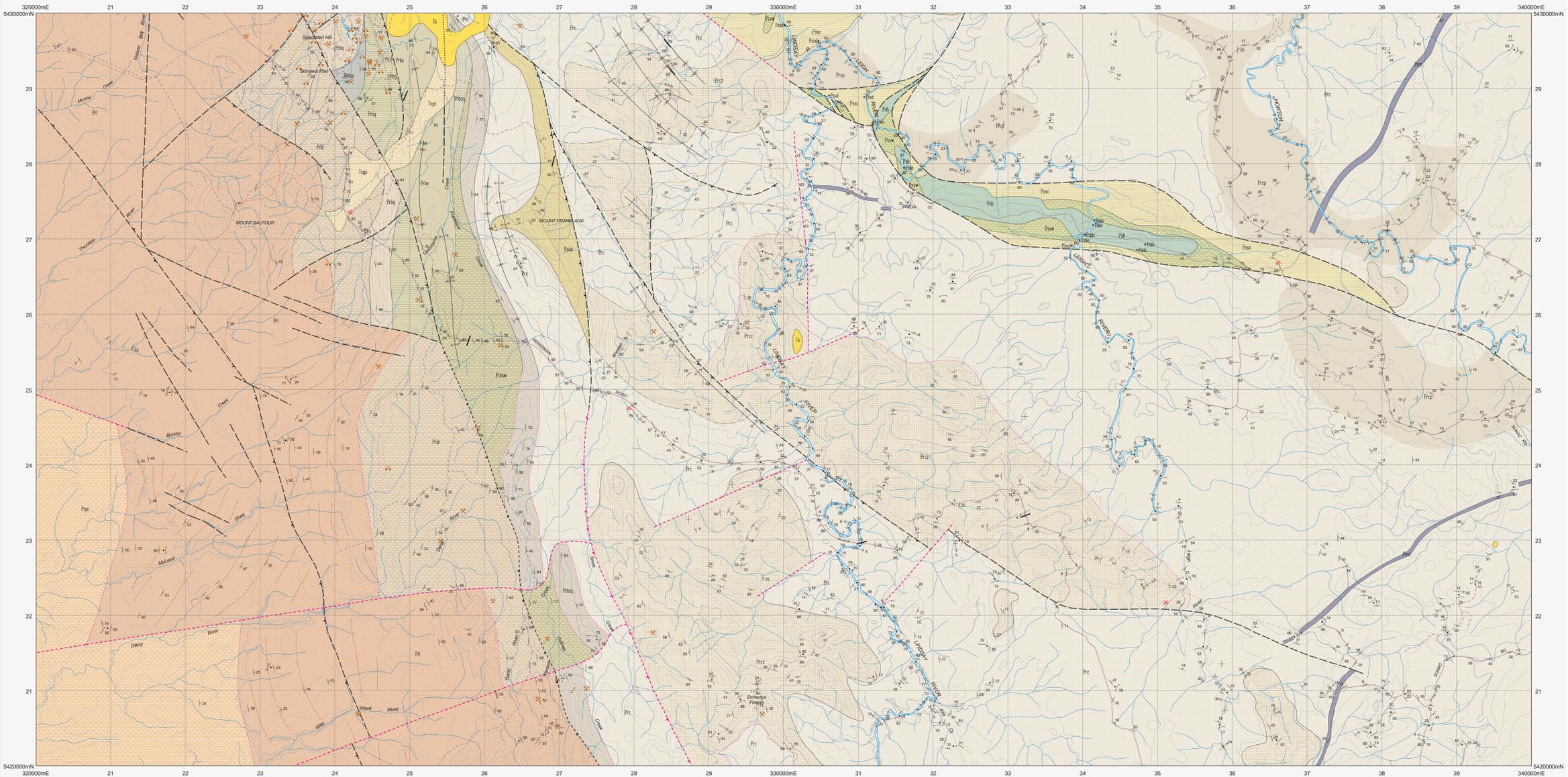


# BALFOUR

Scale: 1:25 000



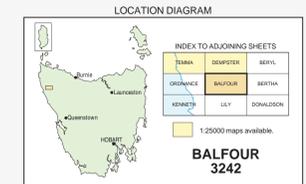
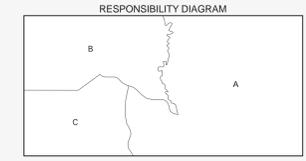
<b>CENOZOIC - PALEOZOIC - NEOZOIC</b>	<b>Tb</b>	Basalt (Tb); transitional olivine basalt (Tbr) and basaltite (Tbs) indicated.
	<b>Tsgs</b>	Interbedded siliceous gravel, quartz sand and clay (Tsgs).
	<b>Psvw</b>	Angular unconformity.
	<b>Psb</b>	Interbedded laminated mudstone, siltstone, and siltic wacke with mafic volcanic detritus (Psvw). (Kessop Creek Formation).
	<b>Psb</b>	Massive basalt (Psb). Varieties with 10 - 13% TiO2 (Psb1), 15 - 18% TiO2 (Psb2) and evolved varieties with 16 - 2.3% TiO2 and < 4% MgO (Psb3) indicated. (Psb, Pbsb, Pbsc, Pbsd - Sinks Creek Volcanics).
	<b>Pbsc</b>	Interbedded massive or banded, black, white and grey chert (sulfidic in part) and laminated siltstone, with minor dolomite (Pbsc); some dolomite outcrop indicated (Pbsc).
	<b>Pbsd</b>	Chert breccia and conglomerate (with clasts dominantly of black, grey and white chert) and subordinate orthoquartzite, interbedded with zone grey-weathering distinctly laminated medium-grained orthoquartzite (Pbsd). (Cornelia of Forest Conglomerate and Quartzite).
	<b>Pbsc</b>	Erosional and transpressive surfaces; low angle unconformity at some localities.
	<b>Pbsc</b>	Interbedded, black, grey or green, locally pyritic, laminated siltstone and mudstone, with rare sandstone and mud pellet conglomerate (Pbsc). Some troughs of well exposed false back to dark grey pyritic siltstone indicated (Pbsc). Siltstone with finely developed alteration of siliceous (pale grey) and carbonaceous (dark grey) laminae, commonly with pervasive wavy lamination to small-scale trough cross-lamination, and with beds up to 10cm thick of pale cream to brown plane-parallel trough (trough cross-laminated) medium-grained well-sorted quartz sandstone (Pbsc). (Pbsc, Pbsc, Pbsc: Coarse Siltstone).
	<b>Pbsc</b>	

<b>7MESOPROTEROZOIC</b>	<b>Erbsqa</b>	Fine-weathering, thickly bedded medium to coarse-grained quartzite interbedded with siltstone to fine sandstone, containing some disseminated porphyroblastic chertite (Erbsqa). Siltstone with finely developed alteration of siliceous (pale grey) and carbonaceous (dark grey) laminae, commonly with pervasive wavy lamination to small-scale trough cross-lamination, and containing porphyroblastic chertite in some beds. (Erbsqa). Micaceous fine-grained sandstone with subordinate interbedded siltstone and granitic clasts, and containing porphyroblastic chertite in some beds. Laminated to finely bedded, chertite to siliceous siltstone to fine sandstone, containing variously disseminated porphyroblastic chertite (Erbsqa).
	<b>Erbsqa</b>	(Pbsa, Pbsa, Pbsa, Pbsa, Looney's Flat Siltstone).
	<b>Erbsqa</b>	Commonly plane-laminated chertite mudstone to siltstone, containing variously disseminated porphyroblastic chertite (Erbsqa). (Emmetts Creek Shale).
	<b>Erbsqa</b>	Mid-dark grey, thin bedded, massive to plane-laminated siltstone with minor pale grey (quartzose) laminae (Erbsqa), interbedded packages of quartzose sandstone to siliceous siltstone and laminated carbonaceous shale (Erbsqa). (Erbsqa, Erbsqa: Cassellite Creek Quartzite).
	<b>Erbsqa</b>	Siliceous (pale grey) to carbonaceous (dark grey) siltstone, commonly with pervasive wavy lamination to small-scale trough cross-lamination, with finely developed alteration of pale and dark laminae; may show erosional gutters and/or occur at base of some beds, and elastic light; quartzose laminae may reach fine sand grade, and some sections include minor packets of pale grey thin-bedded fine-grained quartz sandstone (Erbsqa). (Sinnars Flat Siltstone).
	<b>Erbsqa</b>	Medium grained, trough cross-bedded to parallel-bedded quartzite sandstone, and rare angular quartz-pebble conglomerate and shale (Erbsqa). (Looney's Flat Quartzite).
	<b>Erbsqa</b>	Quartzite siltstone of varied facies; upper sequences dominantly wavy-to cross-laminated finely alternating siliceous and carbonaceous siltstone similar to unit Pbsc, merging downward into more varied sequence - typically interbedded mid-dark grey siltstone and pale grey quartz siltstone - fine sandstone, which may show plane-parallel bedding, well developed erosional gutters, elastic dykes, and grading, cross-lamination and lensing of the quartz-rich beds (Erbsqa). (Pbsa, Pbsa, Pbsc: Coarse Siltstone).
	<b>Erbsqa</b>	

<b>IGNEOUS ROCKS</b>	<b>Tb</b>	Basalt (Tb); transitional olivine basalt (Tbr) and basaltite (Tbs) indicated.
	<b>Psb</b>	Massive basalt (Psb). Varieties with 10 - 13% TiO2 (Psb1), 15 - 18% TiO2 (Psb2) and evolved varieties with 16 - 2.3% TiO2 and < 4% MgO (Psb3) indicated. (Psb, Pbsb, Pbsc, Pbsd - Sinks Creek Volcanics).
	<b>Pbsd</b>	Dolomite dykes (Pbsd).
	<b>Geological boundary - position accurate or approximate.</b>	
	<b>Geological boundary, transitional - position approximate.</b>	
	<b>Geological boundary - inferred from interpretation of airborne radiometric data.</b>	
	<b>Fault - unspecified type, position accurate or approximate.</b>	
	<b>Fault - unspecified type, concealed.</b>	
	<b>Fault - unspecified type, inferred from airborne radiometric data.</b>	
	<b>Thrust fault - position accurate or approximate, teeth on upper plate.</b>	
	<b>Thrust fault - teeth on upper plate, inferred.</b>	
	<b>Thrust fault - teeth on upper plate, inferred from airborne radiometric data.</b>	
	<b>Lithological trend line.</b>	
	<b>Axial surface trace of major anticline.</b>	
	<b>Axial surface trace of major syncline.</b>	
	<b>(White line) Limit of mapping of sub-unit within undifferentiated rock unit.</b>	

<b>Strike and dip of bedding, facing known - right way up, over-turned.</b>	<b>Strike and dip of bedding, facing unknown - dipping, vertical, horizontal.</b>	<b>Generalised paleocurrent direction, showing sense of movement.</b>
<b>Strike and dip of cleavages, type and relative age unspecified - dipping, vertical.</b>	<b>Strike of vertical crenulation cleavage.</b>	<b>Strike and dip of outcrop-scale fault; vertical.</b>
<b>Strike and dip of dominant joint set.</b>	<b>Trend and plunge of hinge line of minor fold, unspecified relative age, with dip and dip direction of axial surface indicated; vertical axial surface.</b>	<b>Trend and plunge of hinge line of minor fold, unspecified relative age, vergence sinistral; dextral.</b>
<b>Trend and plunge of hinge line of minor fold, unspecified relative age, axial form; synform.</b>	<b>Trend and plunge of hinge line of minor fold, unspecified relative age, axial form; antiform.</b>	<b>Trend and plunge of hinge line of minor chevron fold, unspecified relative age.</b>
<b>Trend and plunge of hinge line of minor fold, relative local age (1).</b>	<b>Strike of dike or vein, rock type or mineral specified by RCODE in Point Attribute Table, with dip and dip direction indicated.</b>	<b>Field station for adjacent reading(s) on map.</b>
<b>Notable small outcrop, lithology indicated.</b>	<b>Mineral deposit location - hardrock.</b>	<b>Mineral deposit location - alluvial/alluvial.</b>
<b>Construction material/industrial mineral/gemstone location.</b>	<b>Data derived from Mineral Resources Tasmania, GSD/CRS data base. Data point position has not been verified in every case.</b>	

Compiled by J.L. Everard, B.Sc. (Hons), A.R. Reed, B.Sc. (Hons) and D.B. Seymour, B.Sc. (Hons), PHD, 2003 from the following sources (see responsibility diagram):  
 A. J.L. Everard new 1:25 000 scale mapping 1998-99, augmented by interpretation of airborne magnetic and radiometric data and interpretation of aerial photographs.  
 B. A.R. Reed new 1:25 000 scale mapping 1998-99, augmented by interpretation of airborne magnetic and radiometric data and interpretation of aerial photographs.  
 C. D.B. Seymour new 1:25 000 scale mapping 1998-99, augmented by interpretation of airborne magnetic and radiometric data and interpretation of aerial photographs.



**REFERENCE THIS MAP AS:**  
 EVERARD, J.L., REED, A.R., SEYMOUR, D.B. (compilers) 2003.  
 Digital Geological Atlas 1:25 000 Scale Series, Sheet 3242.  
 Balfour, Mineral Resources Tasmania.

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 Map produced by the Geoscience Information Branch of Mineral Resources Tasmania using G.I.S. software.  
 GDAS4 - MGA Zone 55. Contour Interval: 20 metres.

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