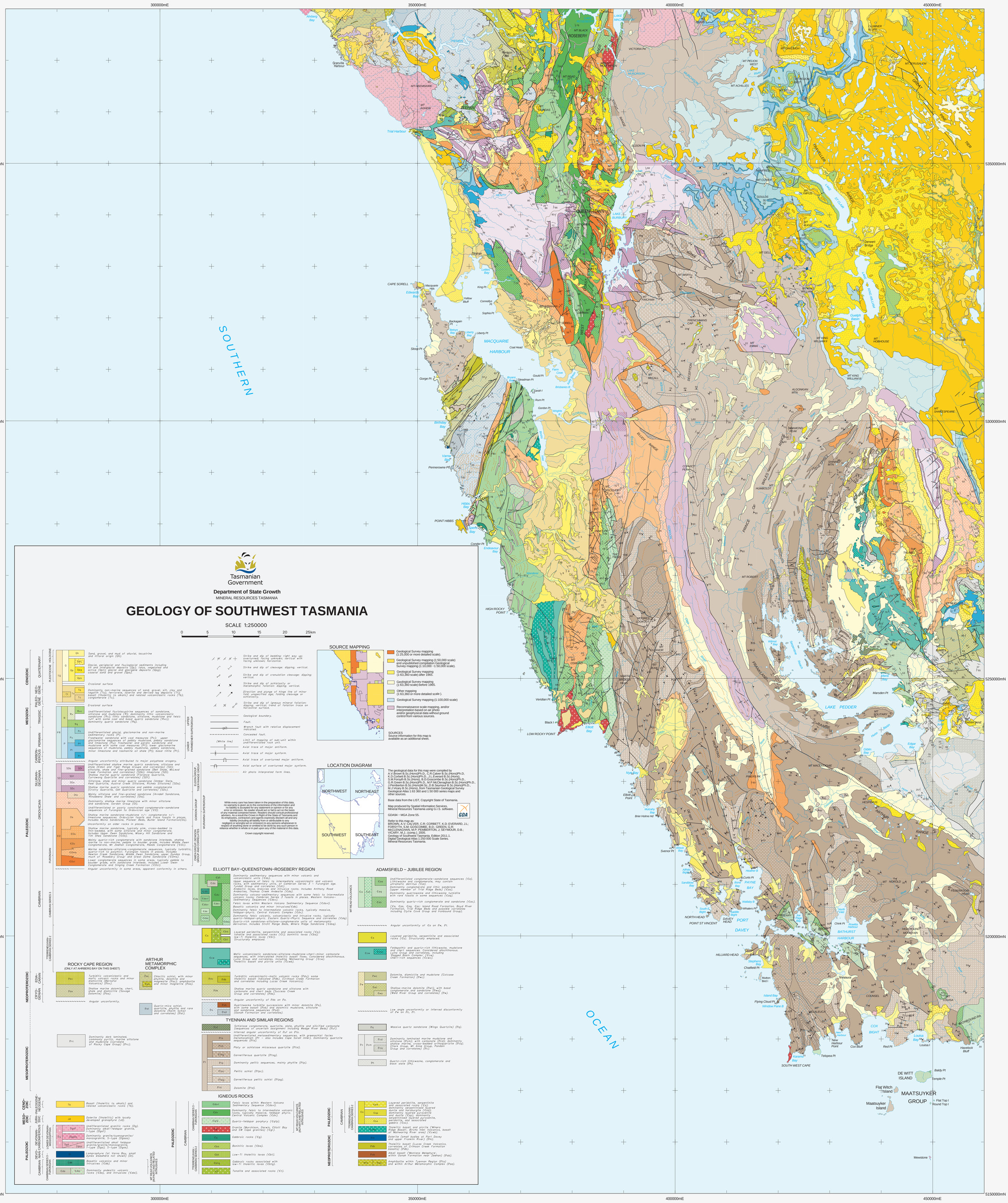
Tasmanian Government
Department of State Growth
MINERAL RESOURCES TASMANIA
GEOLOGY OF SOUTHWEST TASMANIA
SCALE 1:250000
0 5 10 15 20 25km
300000mE
350000mE
400000mE
450000mE
5350000mN
5300000mN
5250000mN
5200000mN
5150000mN
SOUTHERN OCEAN
LAKE PEDDER
MACQUARIE HARBOUR
PORT DAVEY
BATHURST HARBOUR
SOUTH WEST CAPE
POINT HIBBS
CAPE SORELL
HIGH ROCKY POINT
LOW ROCKY POINT
ROSEBERY
QUEENSTOWN
ZEEHAN
Strahan
Queenstown
Derwent Bridge
Tarraleah
Strathgordon
Granville Harbour
Trial Harbour
Birthday Bay
Hibbs Bay
Macquarie Hbr
Marsden Pt
Port Davey
Bathurst Harbour
Hillyard Head
Cox Bluff
Red Pt
Louisa I
Maatsuyker Group
Flat Top I
Round Top I
Mewstone
Flat Witch Island
Maatsuyker Island
DE WITT ISLAND
Baldy Pt
Temple Pt
SOURCE MAPPING
Geological Survey mapping (1:25,000 or more detailed scale).
Geological Survey mapping (1:50,000 scale) and unpublished compilation Geological Survey mapping (1:10,000 –1:50,000 scale).
Geological Survey mapping (1:63,360 scale) after 1965.
Geological Survey mapping (1:63,360 scale) before 1965.
Other mapping (1:63,360 or more detailed scale).
Geological Survey mapping (1:100,000 scale)
Reconnaissance scale mapping, and/or interpretation based on air photo and/or geophysical data without ground control from various sources.
SOURCES
Source information for this map is available as an additional sheet.
LOCATION DIAGRAM
NORTHWEST
NORTHEAST
SOUTHWEST
SOUTHEAST
The geological data for this map were compiled by
A.V.Brown B.Sc.(Hons)Ph.D., C.R.Calver B.Sc.(Hons)Ph.D.,
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M.J.Vicary B.Sc.(Hons), from Tasmanian Geological Survey
Geological Atlas 1:63 360 and 1:50 000 series maps and other sources.
Base data from the LIST, Copyright State of Tasmania.
Map produced by Spatial Information Services, Mineral Resources Tasmania using G.I.S. software.
GDA94 – MGA Zone 55.
GDA
Refer to this map as:
BROWN, A.V; CALVER, C.R; CORBETT, K.D; EVERARD, J.L; FORSYTH, S.M; GOSCOMBE, B.; GREEN, G.R.; HOCKING, R.M.; McCLENAGHAN, M.P; PEMBERTON, J; SEYMOUR, D.B.; VICARY, M.J. (comp.). 2005.
Geology of Southwest Tasmania. Edition 2011.1.
Digital Geological Atlas 1:250 000 Scale Series.
Mineral Resources Tasmania.
CENOZOIC
MESOZOIC
PALEOZOIC
MESOPROTEROZOIC
NEOPROTEROZOIC
QUATERNARY
PALEO-GENE
NEO-GENE
TRIASSIC
PERMIAN
CARBON-IFEROUS
SILURIAN-DEVONIAN
ORDOVICIAN
CAMBRIAN
TYERRENEENIAN-CAMBRIAN SERIES 2
EDIA-CARAN
CRYO-GENIAN
JURA-PALEOGENE
LOWER DEVONIAN-MISSISSIPPIAN
DEVO-NIAN-CARBONIFEROUS
CAMBRIAN SERIES 3 – TYERRENEENIAN
ROCKY CAPE REGION
(ONLY AT AHRBERG BAY ON THIS SHEET)
ARTHUR METAMORPHIC COMPLEX
TYENNAN AND SIMILAR REGIONS
IGNEOUS ROCKS
ELLIOTT BAY–QUEENSTOWN–ROSEBERY REGION
ADAMSFIELD – JUBILEE REGION
Sand, gravel, and mud of alluvial, lacustrine and littoral origin (Qh).
Glacial, paraglacial and fluvioglacial sediments including 'Up-ice' paraglacial deposits (Qp); sheet, restricted and active (Qgr); glacial and glacio-lacustrine deposits (Qgl); coastal sand and gravel (Qgs).
Erosional surface
Dominantly non-marine sequences of sand, gravel, silt, clay and regolith (Ts); ferricrete, laterite and derived lag deposits (Tf); basalt (tholeiitic to alkalic) and related volcaniclastic rocks (Tb); conglomerate (Tc).
Erosional surface
Undifferentiated fluviolacustrine sequences of sandstone, siltstone and mudstone (R); dominantly lithic volcaniclastic sandstone (Rv); lithic sandstone, siltstone, mudstone and felsic tuff with some coal and basal quartz sandstone (Rvc); dominantly quartz sandstone (Rq).
Undifferentiated glacial, glaciomarine and non-marine sedimentary rocks (P).
Freshwater sandstone with coal measures (Pc); upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu); freshwater and paralic sandstone and mudstone with some coal measures (Pl); lower glaciomarine sequences of mudstone, pebbly mudstone, pebbly sandstone, minor limestone and tasmanite oil shale (Pl); basal tillite (Pt).
Angular unconformity attributed to major polyphase orogeny.
Undifferentiated shallow marine quartz sandstone, siltstone and shale (Eldon and Tiger Range Groups and correlates) (SD); siltstone, shale and fine-grained sandstone (Florentine Valley, McLeod Creek Formation and correlates) (SDb); limestone (SDc).
Shallow marine quartz sandstone (Florence Quartzite, Curraweng Quartzite and correlates) (SDr).
Siltstone, shale and minor quartz sandstone (Amber Slate, Keel Quartzite, Austral Creek Siltstone, Richea Siltstone) (SDo).
Shallow marine quartz sandstone and pebble conglomerate (Crotty Quartzite, Gell Quartzite and correlates) (SDc).
Mainly siltstone and fine-grained sandstone (Arndell Sandstone, 'Windeaena Shale' and correlates) (Oia).
Dominantly shallow marine limestone with minor siltstone and sandstone. Gordon Group (Go).
Undifferentiated or poorly constrained conglomerate-sandstone sequences of Furongian to Ordovician age (CO).
Shallow marine sandstone–mudstone +/– conglomerate +/– carbonate sequences of Tremadoc age (Ow). Includes, in places, includes Moina Sandstone, Pioneer Beds, Butler Island Formation(Ow).
Unconformity on older rocks in places.
Shallow marine sandstone, typically pink, cross-bedded to massive, with minor siltstone and minor conglomerate. Includes Upper Owen Sandstone, Misery Hill Sandstone and Tim Shea Sandstone (COs).
Mainly quartz–rich conglomerate with sandstone interbeds, shallow marine to non–marine, pebble to boulder grade. Includes Middle Owen Conglomerate, Mt Zeehan Conglomerate, Reeds Conglomerate (COc).
Marine sandstone–siltstone–conglomerate sequences, typically turbiditic, quartz–rich to polymict. Furongian fossils in places. Includes Newton Creek Sandstone, Middle Owen Sandstone, upper Dundas Group, much of 'Rosebery Group' and Great Dome Sandstone (COms).
Lower conglomerate sequences in some areas, typically pebble to boulder grade. Includes Crimson Creek Formation, Lower Owen Conglomerate and Tasping Creek Formation (COc).
Angular unconformity in some areas, apparent conformity in others.
Dominantly sedimentary sequences with minor volcanic and volcaniclastic units (Cds).
Upper sequence of felsic to intermediate volcaniclastic and volcanic rocks, with sedimentary units, of Cambrian Series 3 – Furongian age. Tyndall Group and correlates (Cdt).
Andesitic lavas, breccias and intrusive rocks. Includes Anthony Road Andesites, Thomas Creek Andesite (Cdo).
Felsic volcanic, volcaniclastic and intrusive rocks with some felsic to intermediate volcanic rocks; Cambrian Series 3 fossils in places. Western Volcano–Sedimentary Sequences (Cdsv).
Felsic lavas within Western Volcano Sedimentary Sequence (Cdsv1).
Basaltic volcanics and minor intrusives(Cdb).
Dominantly felsic to intermediate volcanic rocks, typically massive, feldspar–phyric. Central Volcanic Complex (Cdv).
Dominantly felsic volcanic, volcaniclastic and intrusive rocks, typically quartz–feldspar–phyric. Eastern Quartz–Phyric Sequence and correlates (Cdq).
Quartz–rich sandstone–siltstone–conglomerate units of metamorphic derivation. Includes Stichi Range Beds, Miners Ridge Sandstone (Cdsq).
Layered peridotite, serpentinite and associated rocks (Cs); tonalite and associated rocks (Ct); boninitic lavas (Cbz); low–Ti tholeiitic lavas (Cbt). Structurally emplaced.
Mafic volcaniclastic sandstone–siltstone–mudstone–chert–minor carbonate sequences, with intercalated tholeiitic basalt flows. Considered allochthonous. Luina Group and correlates, including 'Moinwaring Group' (Ccw). Tholeiitic basalt and picrite units (Ccwb).
Turbiditic volcaniclastic–mafic volcanic rocks (Pdv); some tholeiitic basalt indicated (Pdb). (Crimson Creek Formation and correlates including Lucas Creek Volcanics).
Shallow marine quartz sandstone and siltstone with carbonate and chert beds (Success Creek Group and correlates) (Pds).
Angular unconformity of Pds on Po.
Quartzwacke turbidite successions with minor dolomite (Po), with some basalt (Pob) and dolomitic mudstone, siltstone and sandstone sequences (Pod). (Donah Formation and correlates).
Dominantly dark laminated, commonly pyritic, marine siltstone and mudstone (correlate of Rocky Cape Group) (Prc).
Basalt (tholeiitic to alkalic) and related volcaniclastic rocks (Tb).
Dolerite (tholeiitic) with locally developed granophyre (Jd).
Undifferentiated granitic rocks (Dg). Dominantly alkali–feldspar granite, I–type (Dgaf).
Dominantly granite/syenogranite/ monzogranite, S–type (Dgsm).
Undifferentiated alkali feldspar granite/granite/monzogranite, I–type (Dga); S–type (Dgas).
Lamprophyre (at Varna Bay, small dykes elsewhere not shown) (Dl).
Basaltic volcanics and minor intrusives (Cdb).
Dominantly andesitic volcanic rocks (Cdo), and intrusives (Cdoi).
Felsic lavas within Western Volcano Sedimentary Sequence (Cdsv).
Dominantly felsic to intermediate volcanic rocks, typically massive, feldspar phyric. Central Volcanic Complex (Cdv).
Quartz–feldspar porphyry (Cdqp).
Granite (Murchison, Darwin, Elliott Bay and SW Cape granites) (Cgr).
Gabbroic rocks (Cg).
Boninitic lavas (Cbz).
Low–Ti tholeiitic lavas (Cbt).
Gabbroic rocks associated with low–Ti tholeiitic lavas (Cbtg).
Tonalite and associated rocks (Ct).
Layered peridotite, serpentinite and associated rocks (Cs).
Dominantly serpentinized layered dunite and harzburgite (Csd); dominantly layered pyroxenite (Csp); dominantly layered serpentinised layered pyroxenite, peridotite, and associated gabbro (Csx).
Tholeiitic basalt and picrite (Miners Ridge Basalt; Birchs Inlet Volcanics, basalt of Moinwaring Ryke Ores) (Ccwb).
Dolerite (small bodies at Port Davey and upper Franklin River) (Pm).
Tholeiitic basalt (Lucas Creek Volcanics, correlates of Crimson Creek Formation basalts) (Pdb).
Alkali basalt ('Montana Melaphyre', within Donah Formation near Zeehan) (Pob).
Amphibolite within Tyennan Region (Pto) and within Arthur Metamorphic Complex (Pao).
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THIS MAP IS EDITION 2011.1
BASED ON A STATEWIDE DATASET
Data correct & plotfile generated: 09-JUL-2015