Tasmania
Explore the possibilities

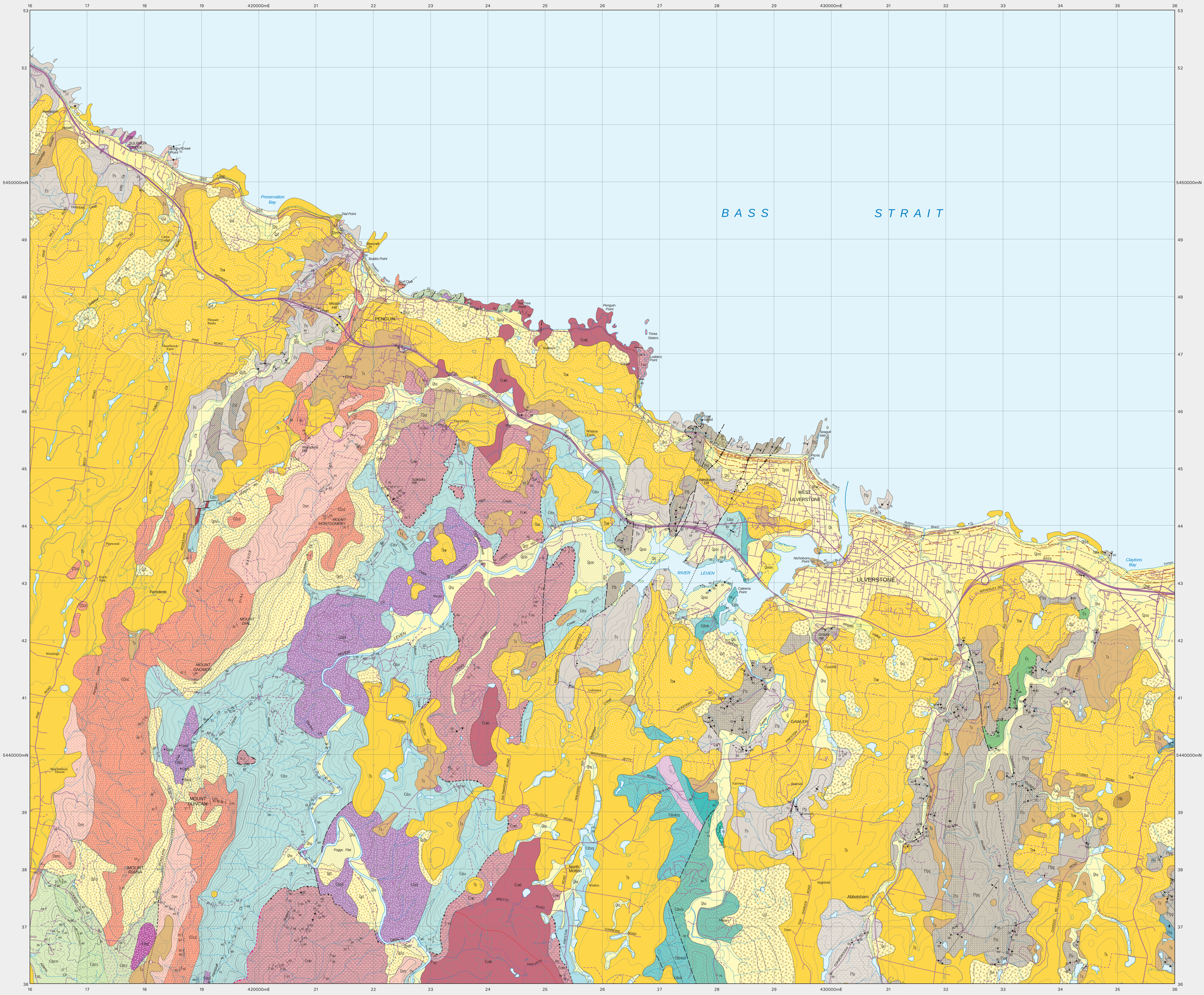
Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

TASMANIAN LANDSLIDE MAP SERIES

ULVERSTONE – GEOLOGY

MAP 3

CENTRAL COAST COUNCIL



Scale: 1:25 000

0 500 1000 1500 2000 2500m

GDA94 – MGA Zone 55. Contour Interval 20 metres.

CENOZOIC

QUATERNARY – HOLOCENE

- **Qhmm** Man made deposits (Qhmm); including man disturbed ground (Qhm).
- **Qhbd** Beach sand, sand dunes and beach gravel (Qhbd).
- **Qhi** Predominantly estuarine mud (Qhi).
- **Qhc** Colluvium (Qhc).
- **Qhwr** Sand of stabilised longitudinal beach ridges (Qhwr).
- **Qha** Stream alluvium, swamp and marsh deposits (Qha).

QUATERNARY – PLEISTOCENE

- **Qaf** Gravel deposits of alluvial fans (Qaf).
- **Qxt** Landslide deposits predominantly derived from weathered Tertiary rocks (Qxt).
- **Qpsa** Older stabilised aeolian sand of coastal plain (Qpsa).
- **Qpt** Talus (Qpt); basalt talus (Qptb); talus derived from chert (Qptr); quartz sandstone and conglomerate talus derived from Owen Group correlates (Qpto).
- **Qpao** Older alluvium of river terraces (Qpao).

TERTIARY

- **TQss** Dominantly sand, clayey sand and sandy clay and subordinate clay and gravel of probable mixed alluvial and aeolian origin (TQss).
- **Tflb** Laterite derived from Tertiary Basalt (Tflb).
- **Tbw** Predominantly deeply–weathered basalt (Tbw).
- **Tb** Basalt (Tb), including local occurrences of hawaiite (Tbh) and alkali olivine basalt (Tbao).
- **Tsqm** Terrestrial sand, gravel and minor lacustrine deposits (Ts); silicified zones (Tsqm).
- **Tfgb** Grey–billy and silcrete and including lag and outcrop of silicified quartz sandstone and conglomerate (Tfgb).
- **Tbt** Olivine tholeiite (Tbt).

PALEOZOIC

ORDOVICIAN – LATE CAMBRIAN

- **Osm** Grey poorly sorted fine–grained sandstone, commonly bioturbated (correlate of Moina Sandstone) (Osm).
- **Osmc** Granule–pebble conglomerate, with quartzite and chert clasts (Osmc).
- **COcd** Pebble–cobble siliciclastic conglomerate and coarse–grained sandstone with abundant quartzite and chert clasts (Duncan Conglomerate) (COcd). — OWEN GROUP

PALEOZOIC

MIDDLE CAMBRIAN

- **Ꞓdsrm** Undifferentiated mainly sedimentary sequence (near Riana) of shale, siltstone, lithicwacke, sandstone and conglomerate, with minor volcaniclastic units and rare felsic lava (Ꞓdsr).
- **Ꞓdsrsd** Thin bedded shale and siltstone, with minor fine–grained micaceous sandstone (Ꞓdsrm).
- **Ꞓdsrsc** Chert–pebble conglomerate and minor coarse–grained lithic sandstone (Ꞓdsrsc).
- **Ꞓdsrs** Massive, sparsely pebbly lithicwacke sandstone (Ꞓdsrs).
- **Ꞓdsrc** Pebble–cobble, volcaniclastic conglomerate (Ꞓdsrc).

RIANA SEQUENCE (IN PART CORRELATE OF TYNDALL GROUP)

- **Ꞓdsvg** Undifferentiated marine volcano–sedimentary sequency with minor interbedded volcanic units (Ꞓdsv). Marine volcano–sedimentary and sedimentary sequences of sandstone, siltstone, mudstone, conglomerate and breccia with some felsic to andesitic volcanic rocks (Gog Range Greywacke) (Ꞓdsvg).
- **Ꞓdsvgs** Coarse–grained polymict conglomerate, sandstone and lithicwacke with clasts of basalt, chert, siltstone and limestone (Sprent Formation) (Ꞓdsvgs).
- **Ꞓdsvk** Interbedded ashy volcaniclastic siltstone, greywacke and siltstone, pumiceous volcaniclastic sediments and dacite–andesite lavas and intrusives (Ꞓdsvk).
- **Ꞓdsvov** Predominantly feldspar +/– pyroxene phyric andesitic–dacitic volcaniclastic sandstone. Commonly pumiceous (Ꞓdsvov).
- **Ꞓdsvkv** Predominantly fine–grained ashy volcaniclastic siltstone, with minor black–grey siltstone (Ꞓdsvkv).
- **Ꞓdsvkss** Predominantly micaceous greywacke and siltstone (Ꞓdsvkss).
- **Ꞓdsvis** Micaceous greywacke and minor siltstone with hematitic staining. Contains Middle Cambrian fossils (Ꞓdsvis).
- **Ꞓdsvlc** Purple mudstone–quartzite–chert clast–rich matrix–supported pebble mudstone with feldspathic matrix (Isandula Conglomerate) (Ꞓdsvlc).
- **Ꞓdsvbm** Large blocks of chert, quartzite, basalt, limestone, siltstone, mudstone and jasper in a matrix of lithicwacke, mudstone and conglomerate. (Beecraft and Tea Tree Point Megabreccias) (Ꞓdsvbm).
- **Ꞓdsnr** Hematite–magnetite–pyrrhotite mineralisation (Ꞓdsnr).

WESTERN VOLCANO–SEDIMENTARY SEQUENCE — MT READ VOLCANICS AND CORRELATES

PALEOZOIC

EARLY CAMBRIAN

- **Ꞓcwb** Pillowed to massive fine–to medium–grained augite bearing tholeiitic basalt with intercalated volcaniclastic sandstone and conglomerate, mudstone and chert bearing breccia (Motton Spilite) (Ꞓcwb).
- **Ꞓcwc** Pale to dark grey or black, distinctly bedded and plane laminated to massive or brecciated chert, with minor red and grey siliceous hematitic mudstone and siltstone (Barrington Chert) (Ꞓcwc).

CLEVELAND–MOLAPO ASSOCIATION

PROTEROZOIC

?NEO–PROTEROZOIC

- **Pst** Fault breccia with blocks of probable Togari Group correlates including lithic conglomerate, sandstone, mudstone, chert, dolomite, dolomitic diamictite and limestone, in a sheared mudstone matrix with scaly fabric (Pst).
- **Po** Quartzwacke turbidite sequence of sandstone, siltstone and well bedded black slaty mudstone (Burnie Formation) (Po).
- **Pobp** Pillow basalt (Pobp).
- **Pof** Hematite mineralisation of uncertain age within Po (Pof).

PROTEROZOIC

?MESOPROTEROZOIC — ULVERSTONE–FORTH METAMORPHICS

- **Ptb** Dominantly schistose conglomerate (Goat Island Conglomerate and correlates) (Ptb).
- **Pts** Dominantly quartzite (Pts).
- **Ptp** Quartz–chlorite–muscovite schist (Ptp).
- **Ptpg** Quartz–muscovite–garnet schist (Ptpg).

INTRUSIVE ROCKS

PALEOZOIC

MIDDLE CAMBRIAN — MT READ VOLCANICS

- **Ꞓdsid** Massive plagioclase–hornblende phyric dioritic, andesitic and dacitic intrusives. U–Pb SHRIMP age of igneous zircon – 500.2 +/– 3.5 Ma at 420701mE, 5441978mN. (Lobster Creek Intrusives) (Ꞓdsid).
- **Ꞓdad** Coarse–grained plagioclase–pyroxene cumulate dolerite (Riana Dolerite?) (Ꞓdad).

EARLY CAMBRIAN — ALLOCHTHONOUS SEQUENCES

- **Ꞓs** Serpentinite (Ꞓs).

PROTEROZOIC

ULVERSTONE – ALLOCHTHONOUS SEQUENCES METAMORPHICS

- **Pob** Albite dolerite and metabasalt (Pob).
- **Pto** Amphibolite (Pto).

- Geological boundary – position accurate or approximate.
- Geological boundary – inferred.
- Trends of older stabilised Holocene beach ridges.
- Trends of relict beach ridge related to regressive strandline of Last Interglacial Stage.
- Intrusive boundary – position accurate or approximate.
- Fault – position accurate or approximate.
- Fault – inferred.
- Fault – concealed.
- Thrust fault (teeth on upper plate) – position accurate or approximate.
- Thrust fault (teeth on upper plate) – inferred.
- Thrust fault (teeth on upper plate) – concealed.
- Thrust fault – inferred from airborne radiometric data.
- Lineament visible on aerial photographs.
- Lineament visible in airborne radiometric data.
- (white line) Limit of mapping of sub–unit within undifferentiated rock unit.
- Axial surface trace of major later antiform.
- Axial surface trace of major later synform.

- Strike and dip of bedding, right way up; overturned.
- Strike and dip of bedding, facing unknown; vertical.
- Strike and dip of compositional layering.
- Strike and dip of metamorphic foliation other than cleavage, parallel to compositional layering.
- Strike and dip of cleavage of unspecified type and relative age, vertical.
- Strike and dip of crenulation cleavage.
- Strike and dip of cleavage, relative local age S1.
- Strike and dip of metamorphic foliation other than cleavage – dipping; vertical.
- Strike and dip of metamorphic foliation other than cleavage, relative local age S2.
- Strike and dip of metamorphic foliation other than cleavage, relative local age S1 – dipping; vertical.
- Trend and plunge of minor fold hinge line; unspecified relative local age, with dip and dip direction of axial surface.
- Trend and plunge of minor fold hinge line; relative local age F1, with dip and dip direction.
- Trend and plunge of minor fold hinge line; relative local age F2.
- Trend of horizontal minor fold hinge line, relative local age F2, with dip of axial surface.
- Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface, vergence dextral.
- Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface, vergence sinistral.
- Trend and plunge of hinge line of reclined minor fold, unspecified relative age.
- Trend and plunge of hinge line of reclined minor F1 fold.
- Fossil location.
- Notable small outcrop.
- Notable small float or lag occurrence, with rock type indicated.
- Field station for adjacent readings on map.

GDA

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Acknowledgements:

Geology based on Mineral Resources Tasmania, Digital Geological Atlas 1:25 000 series. For source information refer to 1:25 000 series map sheets – see Location Diagram below.

Base data from the Land Information System of Tasmania (LIST). Copyright State of Tasmania.

Map produced by the Geoscience Infromation Branch of Mineral Resources Tasmania using GIS software.

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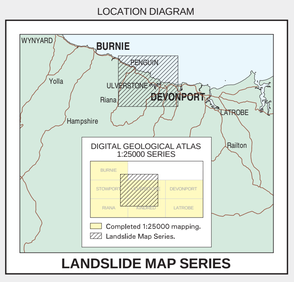
LOCATION DIAGRAM



LANDSLIDE MAP SERIES

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WARNING:INKS ARE LIGHT SENSITIVE