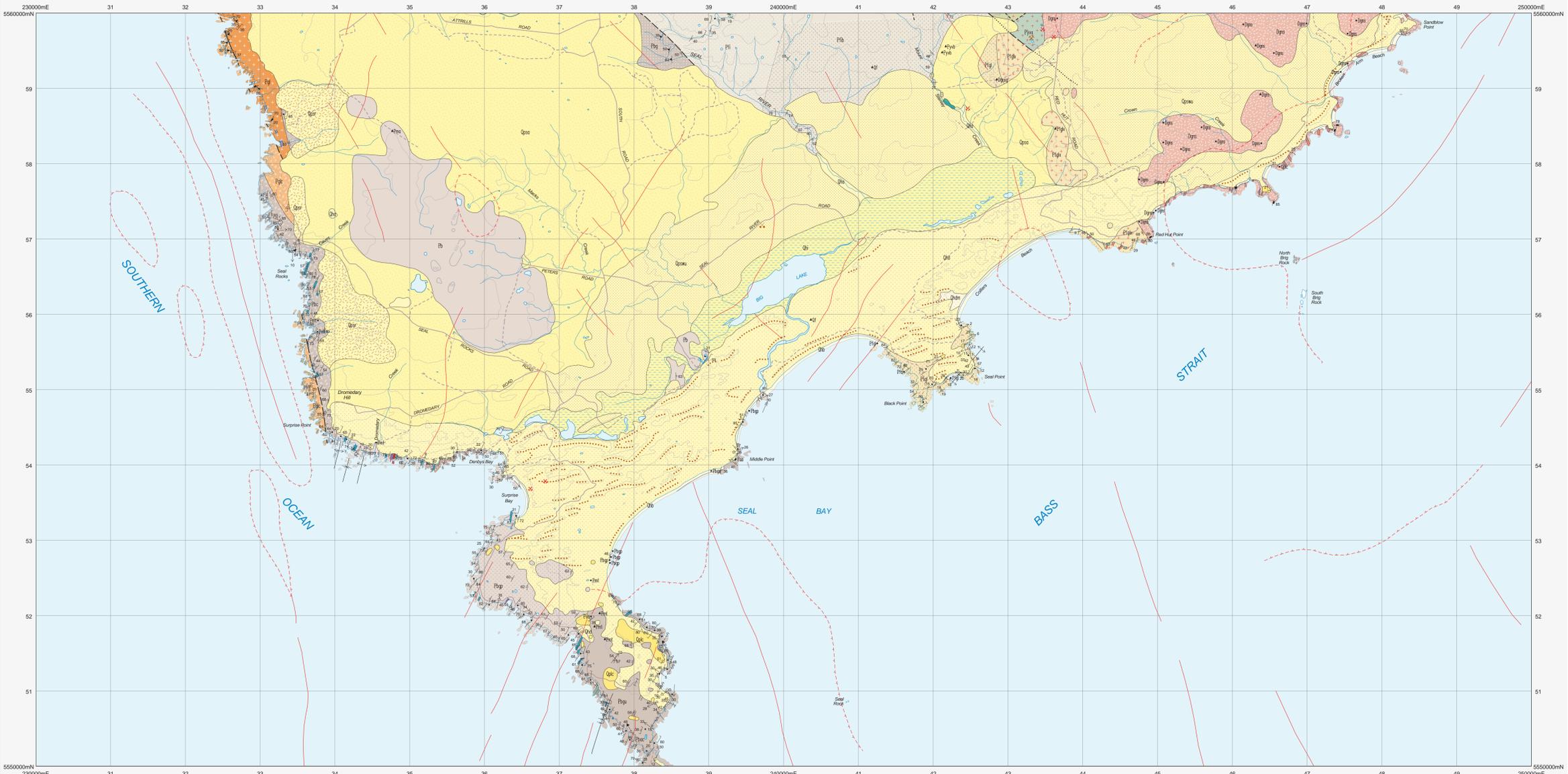


# STOKES NORTH

Scale: 1:25 000



| PERIOD                            | UNIT         | DESCRIPTION                                                                                            |
|-----------------------------------|--------------|--------------------------------------------------------------------------------------------------------|
| HOLOCENE                          | Ohb          | Mobile beach and dune sand (Ohb).                                                                      |
|                                   | Ohdm         | Mobile dune sand (Ohdm).                                                                               |
| VEGETATED DUNE SAND               | Ohd          | Vegetated dune sand (Ohd); vegetated calcareous dune sand (Ohd).                                       |
|                                   | Ohc          | Stream alluvium and freshwater swamp and marsh deposits (Ohc).                                         |
| LAGOON AND PARALIC SWAMP DEPOSITS | Ohl          | Lagoon and paralic swamp deposits (Ohl).                                                               |
|                                   | Ohp          | Older calcareous dune sand with locally abundant rhizomorph fragments (Ohp).                           |
| OCEANIC SAND AND CLAY             | Opaw         | Older oceanic dune sand and minor clay, peat and gravel (Opaw).                                        |
|                                   | Opas         | Stabilised oceanic sand of coastal plain (Opas).                                                       |
| CALCAREOUS DUNE SAND              | Opic         | Well-bedded calcareous calcarenite (lithified calcareous dune sand 'calcarenite') (Opic).              |
|                                   | Ol           | Ironstone (Ol).                                                                                        |
| NEOGENE                           | Tmb          | Biohermal shallow marine limestone (brachiopod calcarenite) with a probable Early Miocene fauna (Tmb). |
|                                   | Unconformity | Unconformity.                                                                                          |

| PERIOD                 | UNIT | DESCRIPTION                                                                                                                                                                                                           |
|------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EDUCIAN                | Eyv  | Mafic volcanics and volcanoclastics (Eyv); contact metamorphosed (Eyv).                                                                                                                                               |
|                        | Eyx  | Undifferentiated sedimentary rocks of Grassy Group (Eyx); contact metamorphosed and metasomatised (Eyx).                                                                                                              |
| FRASER FORMATION       | Eyq  | Massive silty metapelite with amphibole (tremolite-actinolite) porphyroblasts (Eyq).                                                                                                                                  |
|                        | Eyrb | Pale grey quartzite metapelites, very fine-grained metapsandstone and minor pelitic siltstone, laminated in most blocks, commonly with metamorphic chlorite, biotite and garnet (Eyrb); contact metamorphosed (Eyrb). |
| SURPRISE BAY FORMATION | Eyb  | Strongly foliated mica schist, with local calcosilicate and mylonite (Eyb).                                                                                                                                           |
|                        | Eybq | Interbedded medium- to thick-bedded very fine-grained quartz sandstone and pelitic siltstone with metamorphic biotite +/- garnet (Eybq).                                                                              |
| CRYOGENIAN             | Eybc | Usually thin-bedded pelitic schist with metamorphic biotite, garnet and locally abundant amphibole porphyroblasts (Eybc); middle pelitic member of the Surprise Bay Formation.                                        |
|                        | Eybd | Thick-bedded fine-grained quartz sandstone and subordinate pelitic siltstone with metamorphic biotite +/- garnet and rare andalusite (Eybd).                                                                          |
| EDUCIAN                | Eybe | Schist, metapelites and metapsandstone with metamorphic biotite (Eybe).                                                                                                                                               |
|                        | Eybf | Thin-bedded silty sandstone with metamorphic biotite (Eybf); lower sandy member of the Surprise Bay Formation.                                                                                                        |

| PERIOD         | UNIT | DESCRIPTION                                                                                                                                                                                             |
|----------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PALEOZOIC      | Dnsg | Horstlands +/- biotite microgranodiorite dykes (thickness exaggerated) (Dnsg).                                                                                                                          |
|                | Dnra | Porphyritic (K-feldspar) to esquisarid hornblende-biotite monzonite, with common mafic enclaves (Sandflow Granite, L-type dated at 352.4 +/- 1.7 Ma, U-Pb zircon) (Dnra).                               |
| NEOPROTEROZOIC | Eyq  | Mafic volcanics and volcanoclastics (Eyq); contact metamorphosed (Eyq).                                                                                                                                 |
|                | Eyrb | Chloritised plagioclase intrusion in Fraser Formation (Eyrb).                                                                                                                                           |
| EDUCIAN        | Eyq  | Metadiorite intrusions in Fraser Formation (Eyq).                                                                                                                                                       |
|                | Eyrb | Tholeiitic diorite sills in Surprise Bay Formation; probably younger than Loarana Granite (thickness exaggerated) (Eyrb).                                                                               |
| CRYOGENIAN     | Eybc | Strangely fractionated diorite sills, usually feldspar-phyritic, in Surprise Bay Formation; probably younger than Loarana Granite (thickness exaggerated) (Eybc).                                       |
|                | Eybd | Granitic dykes, including quartz-feldspar-biotite porphyry and pegmatite (thickness exaggerated) (Eybd).                                                                                                |
| EDUCIAN        | Eybe | Equigranular/seriate to sparsely porphyritic (K-feldspar) fine- to medium-grained biotite monzonite, with sparse mafic enclaves (Loarana Granite, dated at 745 +/- 2 Ma, U-Pb zircon on zircon) (Eybe). |
|                | Eybf | Breccia, calcosilicate and mylonite, derived predominantly from the Loarana Granite, with minor intercalated pelitic schist (Eybf).                                                                     |
| EDUCIAN        | Eybg | Amphibole dykes and sheets of tholeiitic composition, older than Loarana Granite (thickness exaggerated) (Eybg).                                                                                        |

| SYMBOL    | DESCRIPTION                                                                |
|-----------|----------------------------------------------------------------------------|
| —         | Geological boundary - position accurate or approximate.                    |
| - - -     | Geological boundary - concealed.                                           |
| - · - · - | Metamorphic boundary - position approximate.                               |
| - - - - - | Fault - unspecified type, position accurate or approximate.                |
| - · - · - | Fault - unspecified type, inferred.                                        |
| - - - - - | Fault - unspecified type, concealed.                                       |
| — · — · — | Lineament visible in airborne magnetic data.                               |
| — · — · — | Magnetic gradient or lineament (direction towards lower values indicated). |
| — · — · — | Dune crest.                                                                |
| — · — · — | Axial surface trace of major antiform.                                     |
| — · — · — | Axial surface trace of major synform.                                      |
| — · — · — | Axial surface trace of major overturned synform.                           |
| — · — · — | Limit of mapping.                                                          |
| — · — · — | Limit of mapping of sub-unit within undifferentiated rock unit.            |

| SYMBOL    | DESCRIPTION                                                                                                                                              |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| — · — · — | Strike and dip of bedding - right way up; vertical, facing indicated by single 10; overturned; facing unknown; vertical.                                 |
| — · — · — | Horizontal bedding.                                                                                                                                      |
| — · — · — | Strike and dip of dominant joint set; vertical.                                                                                                          |
| — · — · — | Strike and dip of vein; vertical.                                                                                                                        |
| — · — · — | Trend of dyke or vein; dip unknown.                                                                                                                      |
| — · — · — | Strike and dip of outcrop scale fault.                                                                                                                   |
| — · — · — | Strike and dip of cleavage; vertical; relative local age SI.                                                                                             |
| — · — · — | Strike and dip of penetrative cleavage.                                                                                                                  |
| — · — · — | Strike and dip of crenulation cleavage; vertical.                                                                                                        |
| — · — · — | Strike and dip of cleavage parallel to bedding, facing unknown.                                                                                          |
| — · — · — | Strike and dip of metamorphic foliation other than cleavage.                                                                                             |
| — · — · — | Strike and dip of cataclastic foliation; vertical.                                                                                                       |
| — · — · — | Strike and dip of mylonitic foliation or mylonite zone; vertical.                                                                                        |
| — · — · — | Strike and dip of ductile shear band; vertical.                                                                                                          |
| — · — · — | Trend and plunge of lineation of unspecified type.                                                                                                       |
| — · — · — | Trend and plunge of bedding / primary cleavage intersection lineation (LI).                                                                              |
| — · — · — | Trend and plunge of crenulation lineation.                                                                                                               |
| — · — · — | Trend and plunge of minor fold hinge line, with dip direction and dip of axial surface indicated; uniform horizontal.                                    |
| — · — · — | Trend and plunge of minor fold hinge line, unspecified relative age, vergence direction, vergence sinistral; relative local age (L), vergence sinistral. |
| — · — · — | Notable small outcrop.                                                                                                                                   |
| — · — · — | Field station for adjacent readings on map.                                                                                                              |
| — · — · — | Mineral deposit location - observed/inferring.                                                                                                           |
| — · — · — | Construction material/industrial - mineral/gemstone location.                                                                                            |

Compiled by J.L. Everard, B.Sc.(Hons), 2011 from the following sources (see responsibility diagram):  
A. J.L. Everard 1:25 000 scale geological mapping, 2008-2010.  
B. J.N. Jennings, 1959. The coastal geomorphology of King Island, Bass Strait, in relation to changes in the relative level of the land and sea. Records of the Queen Victoria Museum, Launceston, New Series No. 11.  
C. S.G. Brown, 1976. Progress report on the exploration of the Grassy Granite contact zone. Geopetrol Limited, TCR75-1076.

