Department of State Growth
MINERAL RESOURCES TASMANIA

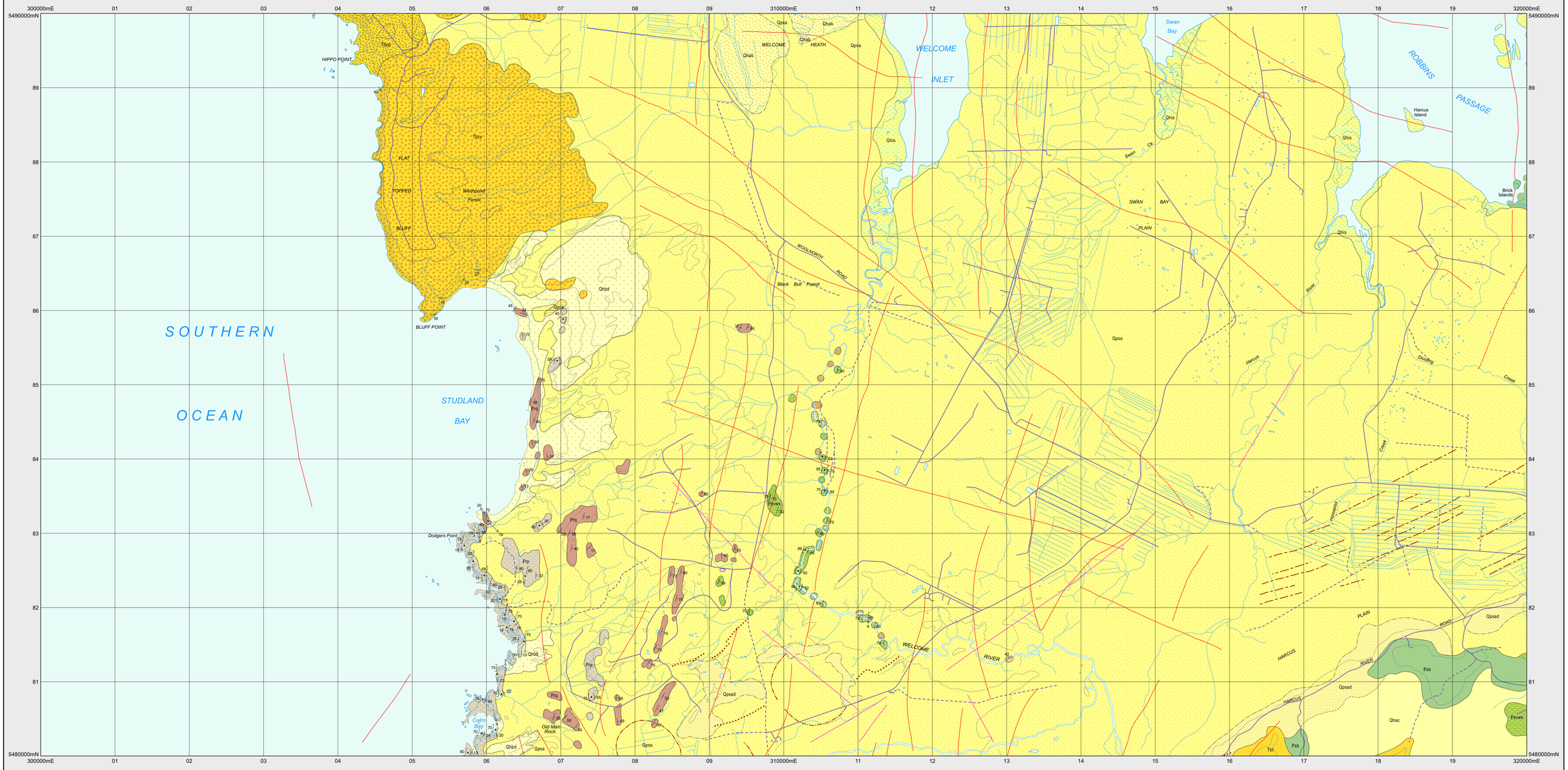
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
STUDLAND, SHEET 3048

STUDLAND

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

- **Qhis** — *Paralic clay, silt, sand and minor gravel deposits of modern salt marsh and associated tidal flats (Qhis).*
- **Qhac** — *Alluvium and colluvium - including alluvial deposits of sand, clay-rich sand or gravel; talus and slope-wash deposits; swamp deposits of sand, clay and peat; and deposits rich in chert lag derived with associated soil from underlying Proterozoic dolomite sequences (Qhac).*
- **Qhbd** — *Younger active dune and beach sand and beach gravel (Qhbd).*
- **Qhab** — *Marsh and swamp deposits (Qhab).*

?PLEISTOCENE

- **Qpca** — *Aeolian calcarenite, partially lithified, showing dune cross-bedding (Qpca).*
- **Qpsa / Qpsad** — *Older stabilised aeolian sand of predominantly coastal plain, with underlying marine sands in places; may show relict landforms including terraces, lunettes, linear or barchan dunes, and beach ridges related to regressive strandlines of Last Interglacial Stage (Qpsa); some areas with preserved relict dune forms indicated (Qpsad).*

Erosional surface.

PALEOGENE - NEOGENE

- **Tbt** — *Massive olivine tholeiite (Tbt).*
- **Tbcs** — *Bedded basaltic flow-foot breccias and associated small pillow lava flows, with dips of 15-45 degrees probably representing original depositional slopes (Tbcs).*
- **Tbop** — *Pillow, 'entrail' and massive-columnar, olivine basalt lavas (Tbop).*
- **Tbcm** — *Crudely bedded basaltic pyroclastic rocks, pillow and tachylitic breccias and hyaloclastite, with subordinate olivine basalt lava and pillow lava. (Marrawah Volcanics) (Tbcm).*
- **Ts** — *Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts).*

Angular unconformity.

PALEOZOIC

CAMBRIAN

CAMBRIAN SERIES 3 - FURONGIAN

- **Ꞓm** — *Red-brown weathering, interbedded lithic wacke, litharenite, lithic conglomerate and laminated siltstone/mudstone, generally well bedded and commonly in thick fining-upward cycles, turbiditic in part (Scopus Formation) (Ꞓm).*

Inferred disconformity.

NEOPROTEROZOIC

TOGARI GROUP

- **Psdl** — *Well bedded to massive, shallow marine dolomite and dolomitic limestone, of subtidal to ?supratidal facies, and cherty silicified equivalents in some localities. (Correlate of Smithton Dolomite) (Psdl).*
- **Psb** — *Interbedded lithic wacke (massive to well bedded, turbiditic and/or mafic volcaniclastic in part), laminated siltstone/mudstone, and minor polymict lithic conglomerate; includes some occurrences of coarse breccia or mixtite with clasts of mafic volcanic rocks. (Correlate of Kappel Creek Formation, may include some equivalents of Croles Hill Mixtite) (Psvwx). Massive and minor amygdaloidal, dominantly tholeiitic basalt (Correlate of Spinks Creek Volcanics) (Psb).*
- **Psvwx**
- **Pssr** — *Dolomitic breccia, with clasts of dolomite and chert in a dolomitic matrix (Correlate of Julius River Member) (Pssr).*
- **Pssm** — *Massive to banded or mottled, black, white and grey chert (after shallow marine carbonate), with subordinate interbedded laminated black mudstone, and with preserved oolitic and stromatolitic textures in places. (Correlate of Black River Dolomite) (Pssm).*
- **Pscx** — *Monomict (with dominantly quartzwacke clasts) and minor polymict, massive coarse lithic breccia, and bedded lithic conglomerate with subordinate cross-laminated quartzarenite. (Correlate of Forest Conglomerate and Quartzite) (Pscx).*

Angular unconformity.

?MESOPROTEROZOIC

ROCKY CAPE GROUP COWREALTE

- **Prq** — *Pale weathering, variably silicified quartzarenite, well bedded and commonly with cross-lamination of trough and planar-tabular types and oscillation ripple bedforms, and with minor horizons of laminated siltstone; tidal influence suggested by bed to bed reversals of cross-lamination polarity in some sections (Prq).*
- **Prp** — *Mid to dark grey, thin-bedded laminated siltstone and mudstone, with minor thin interbeds of cross-laminated and oscillation ripple-marked quartzarenite in some places (Prp).*

IGNEOUS ROCKS

NEOPROTEROZOIC — CENOZOIC — PALEOGENE - NEOGENE

- **Tbt** — *Massive olivine tholeiite (Tbt).*
- **Tbop** — *Pillow, 'entrail' and massive-columnar, olivine basalt lavas (Tbop).*
- **Psb** — *Massive and minor amygdaloidal, dominantly tholeiitic basalt. (Correlate of Spinks Creek Volcanics) (Psb).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Transitional geological contact.*
- *Limit of detailed mapping.*

FAULTS

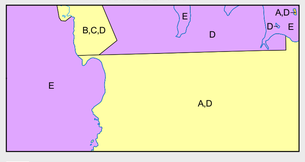
- *Fault - concealed, inferred from magnetic data.*

LINEARS

- *Crest of remnant old stabilised longitudinal dune.*
- *Margin of relict lunette and associated swamp.*
- *Trend of relict beach ridge related to regressive strandline of Last Interglacial Stage.*
- *Lineament - visible in magnetic data.*
- *Lineament - visible in radiometric data.*

- *Strike and dip of bedding - facing known; facing unknown.*
- *Strike and dip of cleavage, type and relative age unspecified - dipping; vertical; parallel to bedding, facing unknown.*
- *Trend and plunge of hingeline of minor fold, relative age unspecified; with dip and dip direction of axial surface.*
- *Field station for adjacent readings on the map.*

SOURCE DIAGRAM



- Highly detailed (eg. more detailed than 1:25 000 scale mapping).
- Detailed systematic (eg.1:25 000 map or equivalent detail).
- Regional systematic (eg.1:50 000, 1:63 360 map or equivalent detail).
- Regional mapping less detailed than 1:63 360 map or equivalent (all other scales).
- Reconnaissance mapping with sparse ground traverses.
- Remote sensing and/or geophysical interpretation with limited or no ground information.

Compiled by D.B. Seymour, B.Sc.(Hons), PhD, 2004 from the following sources (see source diagram):

A SEYMOUR, D.B., BAILLIE, P.W. 1992. Geological Atlas 1:50 000 Series. Sheet 7816S, Woolnorth. Tasmanian Department of Mines. (Re-compiled from original 1:25 000 compilations and original structural data, with modifications and additions from:

B SUTHERLAND, F.L., CORBETT, K.D. 1967. The Tertiary volcanic rocks of far north-western Tasmania. Pap. Proc. Roy. Soc. Tasmania 101: 71-90.

C SUTHERLAND, F.L. 1980: Aquagene volcanism in the Tasmanian Tertiary, in relation to coastal seas and river systems. Pap. Proc. Roy. Soc. Tasmania 114: 177-199.

D D.B. Seymour, 2001, interpretation of aerial photographs and airborne magnetic radiometric data collected under the Western Tasmanian Regional Minerals Program, 2001.

E D.B. Seymour, 2001, Unpublished interpretation of Western Tasmanian Regional Minerals Program airborne magnetic data covering offshore areas.

REFERENCE THIS MAP AS:

SEYMOUR, D.B., SUTHERLAND, F.L. and CORBETT, K.D. (compilers) 2004. Digital Geological Atlas 1:25 000 Scale Series. Sheet 3048 Studland. 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

GDA94 - MGA Zone 55. Contour Interval: 20 metres.

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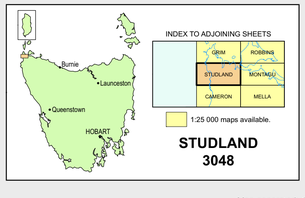
LOCATION DIAGRAM



Map generated: 11-JUN-2024

WARNING: INKS ARE LIGHT SENSITIVE.