# MARRAWAH EAST

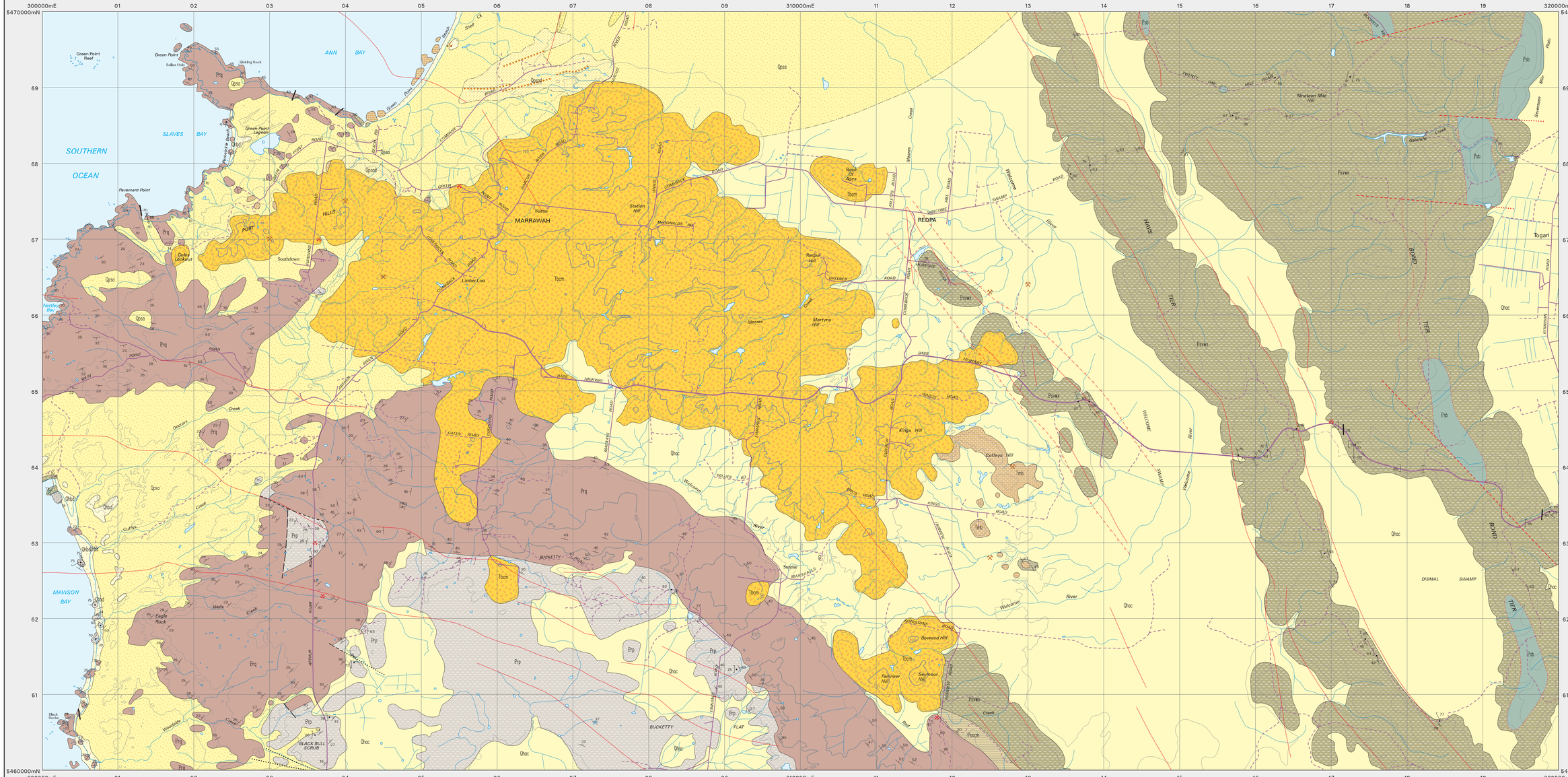
TASMANIAN GEOLOGICAL SURVEY
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
MARRAWAH EAST, SHEET 3046

Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA
Tasmania
DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES

300000mE 01 02 03 04 05 06 07 08 09 310000mE 11 12 13 14 15 16 17 18 19 320000mE
5470000mN 69 68 67 66 65 64 63 62 61 5460000mN




## CAINOZOIC

### QUATERNARY

#### HOLOCENE

**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).*

#### 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).*

**Qpsg** — *Gravel deposits of probable strandline origin, probably related to higher sealevel during Last Interglacial Stage (Qpsg).*

*Erosional Surface.*

### TERTIARY

**Tmb** — *Bioclastic shallow marine limestone, of Early Miocene (U. Longfordian to Batesfordian) biostratigraphic age (Tmb).*

**Tbcm** — *Crudely bedded basaltic pyroclastic rocks, pillow and tachylitic breccias and hyaloclastite, with subordinate olivine basalt lava and pillow lava (Tbcm). (Marrawah Volcanics).*

*Angular unconformity.*

## NEOPROTEROZOIC

**Psd** — *Well bedded to massive, shallow marine dolomite and dolomitic limestone, of subtidal to ?supratidal facies, and cherty silicified equivalents in some localities (Psd). (Correlate of Smithton Dolomite).*

**Psvwx** — *Interbedded lithic wacke (massive to well bedded, turbiditic and/or matic volcaniclastic in part), laminated siltstone/mudstone, and minor polymict lithic conglomerate; includes some occurrences of coarse breccia or mixtite with clasts of matic volcanic rocks (Psvwx). (Correlate of Keppel Creek Formation, may include some equivalents of Croles Hill Mixtite).*

**Psb** — *Massive and minor amygdaloidal, dominantly tholeiitic basalt (Psb). (Correlate of Spinks Creek Volcanics).*

**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 (Pssm). (Correlate of Black River Dolomite).*

**Pbck** — *Monomict (with dominantly quartzarenite clasts) and minor polymict, massive coarse lithic breccia, and bedded lithic conglomerate with subordinate cross–laminated quartzarenite (Pbck). (Correlate of Forest Conglomerate and Quartzite).*

TOGARI GROUP

*Erosional and transgressive surface; low angle unconformity at some localities.*

## ?MESOPROTEROZOIC

**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** / **Prpd** — *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); dominantly red–brown weathering sequence of interbedded laminated dolomitic siltstone, dolomitic oolidal and peloidal grainstones, and ?algal–laminated dolomite with possible stromatolites (Prpd).*

ROCKY CAPE GROUP CORRELATE

## IGNEOUS ROCKS

**TERTIARY** — **Tbcm** — *Crudely bedded basaltic pyroclastic rocks, pillow and tachylitic breccias and hyaloclastite, with subordinate olivine basalt lava and pillow lava (Tbcm). (Marrawah Volcanics).*

**NEOPROTEROZOIC** — **Psb** — *Massive and minor amygdaloidal, dominantly tholeiitic basalt (Psb). (Correlate of Spinks Creek Volcanics).*

*Geological boundary — position accurate or approximate.*

*Geological boundary — transitional. Position of this boundary between units Qhac and Qpsa is very approximate and indicative only.*

*Geological boundary, unspecified type, inferred from airborne magnetic data.*

*Fault, unspecified type, position accurate or approximate.*

*Fault, unspecified type, inferred.*

*Fault, unspecified type, concealed.*

*Fault, unspecified type, inferred from airborne magnetic data.*

*Fault, unspecified type, concealed, inferred from airborne magnetic data.*

*Lineament visible in airborne magnetic data.*

*Magnetic gradient — direction towards lower values indicated.*

*Crest of remnant old stabilised longitudinal dune.*

(White line) *Limit of mapping of sub–unit within undifferentiated unit.*

*Strike and dip of bedding — facing known; unknown.*

*Strike and dip of cleavage, type and relative age unspecified — dipping, vertical.*

*Trend and plunge of crenulation lineation.*

*Trend and plunge of hingeline of minor fold, relative age unspecified; with dip direction and dip of axial surface; with vertical axial surface; with dextral vergence.*

*Strike and dip of outcrop–scale fault, unspecified type and relative age.*

*Mineral deposit location — hardrock* } *Data derived from Mineral Resources Tasmania MRLOCH data base. Datapoint position has not been verified in every case.*

*Mineral deposit location — alluvial* }

*Construction materials location —* *Data derived from Mineral Resources Tasmania CONMAT data base. Datapoint position has not been verified in every case.*

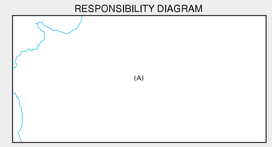
Compiled by D.B. Seymour, B.Sc.(Hons), PhD., from the following sources (see Responsibility Diagram):

A Seymour, D.B.; Baillie, P.W., 1992: Geological Atlas 1:50,000 Series, Sheet 7816S, Woolnorth, Department of Mines Tasmania.
With modifications and additions based on interpretation of airborne magnetic and radiometric data collected under the Western Tasmanian Regional Minerals Program 2001.

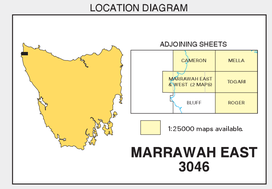
Digital base information from Information and Land Services Division, Department of Primary Industries, Water and Environment.

Map produced by the Data Management Branch of Mineral Resources Tasmania using G.I.S. software.
AGD66 - AMG Zone 55. Contour Interval: 20 metres.

RESPONSIBILITY DIAGRAM




LOCATION DIAGRAM

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Data correct & plotfile generated: 02-DEC-2003

WARNING: INKS ARE LIGHT SENSITIVE