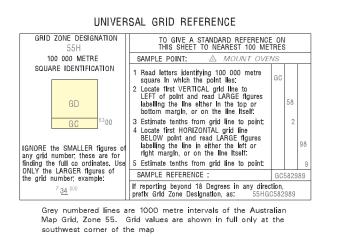
AUSTRALIA 1:100 000 REGOLITH-LANDFORM SERIES Aaf1, Present floodplains with some terraces in upper river reaches Terraced land Aal1, Dissected alluvial terraces on highly weathered Bathurst Granite IN-SITU REGOLITH Ser1, Variably weathered bedrock; rolling rises and slopes at base of higher terrain; northern edge of Bathurst Granite erosion bowl Svp1, Inverted relief lava flows; often multiple flows with underlying alluvial sediments and intervening variably weathered basalt or trachyte, silcrete in places SV Very highly weathered bedrock Rises SVer2, Broad open valley with rises of deep red soils, terraces and floodplains SVel2, Weathered granite within western perimeter of Bathurst Granite erosion bowl; high erosion potential SVel7, Sub-lava weathering; erosion potential SVeh1, Granitic saprolite with some fresh corestones and tors, extensive colluvium on lower slopes and deep alluvium in narrow drainage lines, iron induration in places; rolling hills with open rounded valley floors SH Highly weathered bedrock Erosional plains SHep1, Weathered granite bedrock with clayey soils, ferruginous concretions and mottles at depth, locally derived colluvium and alluvium; plain sloping south towards Macquarie River SHer1, Weathered granite, in places moderately weathered; erosion bowls at foot of surrounding hills with long colluvial slopes and central areas of open rises SHer4, Weathered granite with alluvial black soil veneer in places; alluvium, colluvium and residual clay in low areas; open rises and depressions (swampy in places) and channels; remnant palaeoplain of Macquarie River SHel7, Weathered granite with iron concretions at depth covered in part by rounded cobbles of mixed lithology in clayey red soils; open rolling rises and terraces, minor colluvial fans SM Moderately weathered bedrock Erosional plains SMep4, Slightly inclined Permian clastic bedrock plain; probable exhumed Permian surface SMer3, Lower colluvial slopes; footslopes to higher terrain; localised shallow gully erosion on quartz-rich colluvium SMer4, Very gentle open rises, broad shallow alluvial channels; onlapping Permian structural surface SMer5, Includes areas of slightly weathered bedrock, more highly weathered on flanks of rises; plateau remnants bounded by high steep escarpments SMer6, Corridors of long gentle footslopes, colluvium on lower slopes, alluvium terraces adjacent to creeks SMel3, Minimal soil on rounded closely spaced low hills, minor surface wash and alluvium in depressions; incised poor country SMel13, Granite derived alluvium and sandy to gravelly colluvium; south sloping back slopes off metamorphic aureole scarp on northern edge of Bathurst Granite, wide alluvial south flowing intermittantly active channels SMel14, Plateau with sub-rounded low hills to hills SMel15, Colluvium on lower slopes, sub-angular to sub-rounded crests, long slopes with rounded spurs; soil erosion potential from extensive clearing SMel16, Widened river valleys with footslopes, strath terraces, and alluvial terraces on more highly weathered bedrock especially in the Sofala area; colluvium on lower slopes SMel17, Colluvium on lower slopes; slopes with rounded crests below erosion scarps, some erosion gullies; interface between Sydney Basin and Lachlan Foldbelt SMel18, Low hills and open rises with colluvial slopes on plateau remnants bounded by high steep escarpments SMeh11, Angular to sub-angular crests and long steep slopes with rounded spurs; gully erosion, severe potential for further erosion from clearing on steep slopes SMeh12,Colluvium downslope; scarpland slopes beneath plateau; Sydney Basin SMeh13, Shallow sandy granitic soils; rolling to steep hills ss Slightly weathered bedrock SSep1, Includes moderately weathered bedrock; flat and sloping north-south elongated plains with some rises; bevelled plateau edge on north and south sides of Bathurst Granite erosion bowl SSer2, Rises to low hills of saprolite from slightly weathered Permian clastic bedrock with flat interfluves and numerous headwaters of entrenched drainage flowing east SSel2, Some colluvium at base of slopes; north-west oriented low hills to hills, sharp ridges and closely spaced drainage lines on steep slopes SSel3, Sub-rounded ridge crests, dense drainage lines SSel4, Minimal soils and limestone pavements; flat-topped remnant ridges SSel5, Outcrop on crests and low areas; east trending cuesta ridges with north facing backslopes SSel6, Residual soils on flatter ridge tops; sub-rounded low hills on plateau remnants, sometimes narrow, bounded by high steep escarpments SSeh3, Skeletal soils; steep scarpland slopes beneath plateau remnants; Sydney Basin BU Unweathered bedrock BUel1, Resistant Sydney Basin sandstones; plateau with sharp ridged low hills BUeh1, Stony scree soils at base of slopes, slightly weathered bedrock and skeletal soils in places, minor area of remnant soils on flat ridges; very steep hills and mountains, a few remnant flat-topped ridges on higher terrain; part of metamorphic aureole around Bathurst Granite BUem2, North-south aligned sinuous sharp ridges, steep slopes, narrow valleys, dense drainage lines; a few narrow flat-topped ridges with remnant red soils on slightly weathered bedrock Multiple weathering profiles associated with lava flows LANDFORMS DEPOSITIONAL LANDFORMS 633 000mE 34 35 36 37 38 39 740 41 42 43 44 45 46 47 48 49 750 51 52 53 54 55 56 57 58 59 760 61 62 63 64 65 66 67 68 69 770 71 72 73 74 75 76 77 78 Flood plains Terraced land Alluvial swamp Colluvial fans For definitions of regolith types, landform types, induration and geomorphic features refer to: Pain, C., Chan, R., Craig, M., Hazell, M., Kamprad, J., and Wilford, J. (1991). RTMAP: BMR Regolith database field handbook. BMR Record 1991/29 pd Depositional plains EROSIONAL LANDFORMS UNIVERSAL GRID REFERENCE GRID ZONE DESIGNATION TO GIVE A STANDARD REFERENCE ON THIS SHEET TO NEAREST 100 METRES 55H
100 000 METRE
SQUARE IDENTIFICATION

1 Read letters identifying 100 000 metre square in which the point lies: Residual rises DIGITAL DATA square In which the point lies:
2 Locate first VERTICAL grid line to
LEFT of point and read LARGE figures
labelling the line either in the top or
bottom margin, or on the line itself: em *Mountains* The digital data for this map were compiled on the AGSO Arc/Info System and may be suitable for transfer to other digital systems. SCALE 1:100 000 VOLCANIC LANDFORMS Watercourse 1 0 1 2 3 4 5 6 7 8 9 10 Kilometres vl Lava plains Lake



Information on formats, release conditions, and costs, can be obtained from the AGSO Sales Centre

MAP LOCALITY INDEX TO ADJOINING SHEETS 148°30′ 1:250 000 maps shown in blue 151°30′ 22°00′ / / 22°00′ NEW SOUTH WALES Armidale SYDNEY 34°00′ 8630 8730 8830 8930 9030 9138 34°00′ 148°30′ MAGNETIC DECLINATION 151°30′ MAGNETIC DECLINATION Blue lines show magnetic declination for epoch 1995.0 derived from 1990 AGRF model. Annual change is 2'4" per year easterly at the centre of the map. Information is current to 1995

WARNING: Colours will fade with prolonged exposure to light.

UNIVERSAL TRANSVERSE MERCATOR PROJECTION LATITUDE OF ORIGIN: 0°. LONGITUDE OF ORIGIN: 129° This map shows the type and distribution of regolith-landform units and indicates their dominant regolith-landform associations. These units are distinct patterns of recurring landform elements with characteristic regolith associations.

Geomorphic symbols indicate the location and type of geomorphic activity. This map presents a systematic analysis and interpretation of 1:89 000 scale RC9 aerial photography, 1:100 000 scale topographic maps (AUSLIG), and field mapping data. High resolution (250m line spacing) airborne gamma-ray spectrometry and magnetics (Geoterrex) were used where applicable It is recommended that this map be referred to as: Chan, R.A., Kamprad, J.L., 1995 - Bathurst Regolith-Landforms: 1:100 000 scale map. Australian Geological Survey Organisation, Canberra Copies of this map may be obtained from: AGSO Sales Centre, GPO Box 378, Canberra City, ACT, 2601; Ph (06) 249 9519, Fax (06) 249 9982

Regolith and geomorphology interpreted and compiled 1992-1994 by R.A. Chan and J.L. Kamprad, AGSO Cartography by T. Brennan, N. Corby, G. Scott, Cartographic Services Unit, AGSO Magnetic declination information for 1995 supplied by Geomagnetic Section, AGSO Topographic base map compiled from digital data supplied by Australian Surveying and Land Information Group, © AUSLIG 1994, with modifications Published by the Australian Geological Survey Organisation, Department of Primary Industries and Energy, Canberra. Issued under the authority of the Minister for Primary Industries and Energy, Canberra

© Commonwealth of Australia 1995 This work is copyright. Apart from any fair dealings for the purposes of study, research, criticism or review, as permitted under the Copyright Act, no part may be reproduced by any process without written permission. Copyright is the responsibility of the Executive Director, Australian Geological Survey Organisation. Inquiries should be directed to the Principal Information Officer, Australian Geological Survey Organisation, GPO Box 378, Canberra, ACT, 2601
The Commonwealth does not warrant that this map is definitive, nor free of error and does not accept liability for loss caused or arising from reliance upon information provided herein

Erosional scarp, palaeosurface boundary $\frac{\Lambda}{\Lambda}$ Erosional scarp, unrelated to palaeosurface boundary Structural scarp ______ Metamorphic aureole scarp — Fault line scarp Erosional and structural scarp, palaeosurface boundary Erosional and metamorphic aureole scarp, palaeosurface boundary

Erosional and fault line scarp, palaeosurface boundary ----- Major drainage divide — — — — Minor drainage divide Entrenched superimposed drainage, indicating direction Entrenched superimposed drainage between upstream and downstream limits, indicating direction Site and direction of beheaded stream where no wind gap Site and direction of river capture Site and direction of river reversal \equiv Wind gap Knick point ---- Palaeodrainage, indicating trend Inverted palaeodrainage, indicating direction Inverted palaeodrainage, indicating trend **★V** Major volcanic centre ж∨ Volcanic plug residual Eroded volcanic plug Basalt capped residual hill

☆R Residual hill

----- Main road ----- Minor road BATHURST Town △ Trigonometrical station

> MINERAL DEPOSITS Bathurst Mineral Deposit Database, Department of Mineral Resources, NSW.

 Polymetallic Fe and Mn Cu and Au Pyrite Sn, W, Mo Au and (Ag) Coal and Oil Ag and (Au) Ag and (Gems) Industrial Gems

vp *Lava plateaus*

NGMA Product of the National Geoscience Mapping Accord



BATHURST REGOLITH-LANDFORMS SHEET 8831 PRELIMINARY EDITION 1995 SUBJECT TO AMENDMENT