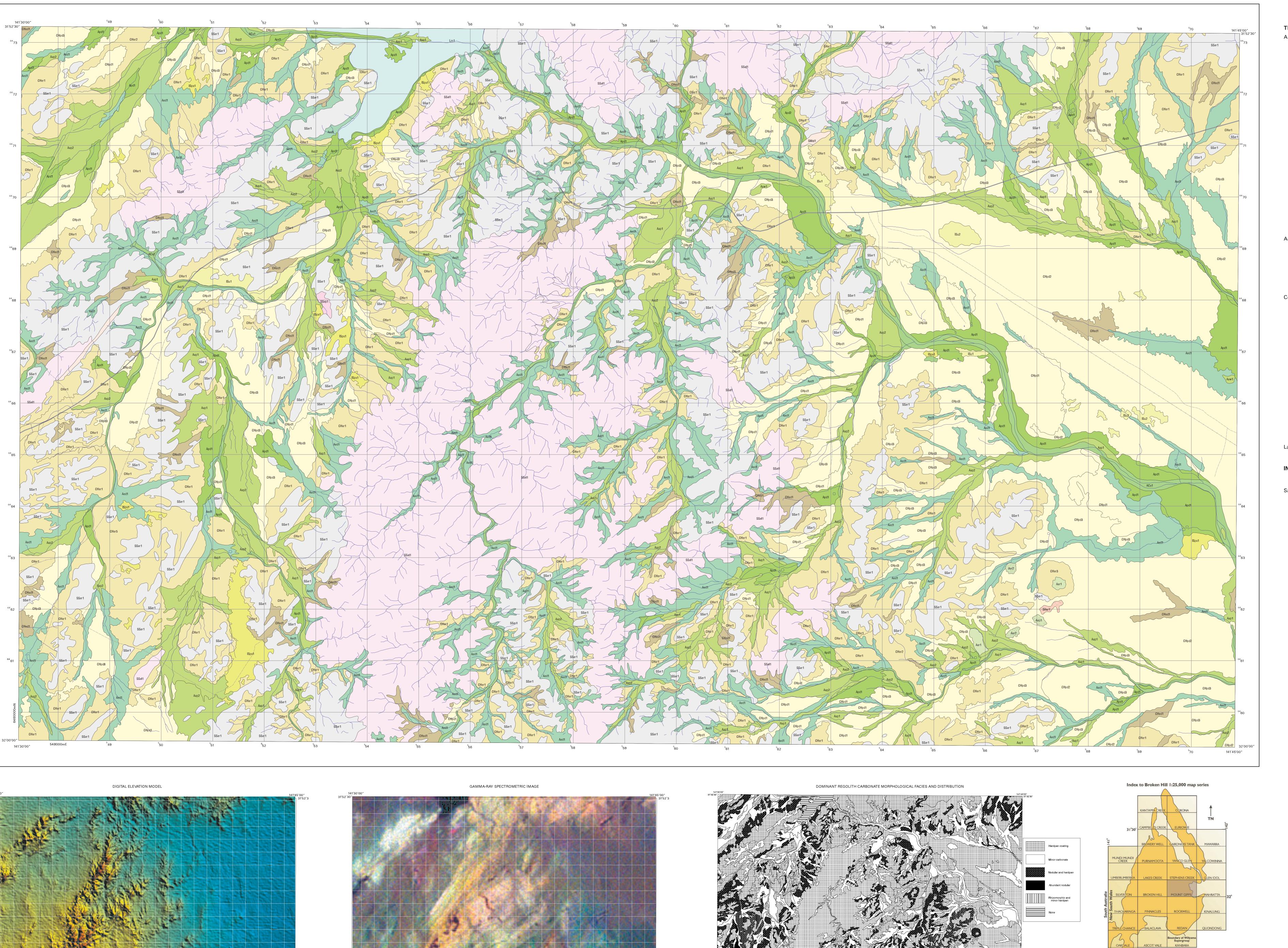
MOUNT GIPPS
BROKEN HILL 1:25,000 REGOLITH-LANDFORM SERIES
NEW SOUTH WALES



Three-band gamma-ray spectrometric image (potassium is red, thorium is green, uranium is blue) of the Mt Gipps 1:25,000 sheet area.

False colour Digital Elevation Model of the Mount Gipps sheet area. Maximum elevations exceed 350 m (red areas) and lowest areas are less than 180 m (blue).





Alluvial sediments

April

Alluvial sediments

Alluvial sediments

Alluvial sediments

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Channel deposits

Sub-rounded to sub-angular sands, silts and gravels, composed of quartz and lithic fragments with minor heavy minerals and clay. Ephemeral meandering and minor braided channels, with occasional levees. Imbricated gravel lags and sands. Minor exposures of slightly weathered bedrock. Open woodland of Eucalyptus camaldulensis.

Sub-rounded to sub-angular sands, silts and gravels, composed of quartz and lithic fragments with minor heavy minerals and clay. Ephemeral meandering and minor braided channels, with occasional levees. Imbricated gravel lags and sands. Minor exposures of slightly weathered bedrock.

Silts and clays with minor sub-rounded quartzose sands Elongate, meandering swampy depressions. Clayey silt and minor sand with organic rich sands. Ephemeral standing water. Shrubland of Acacia victoriae and Myoporum.montanum Jand Enchylaena tomentosa) and minor open woodland of Eucalyptus camaldulensis.

Aeolian sediments

Clayey silt to fine rounded quartzose sands. Low relief landsurface with low (< 1m) hummocky dunes Rounded red-brown fine quartzose sands and silts with occasional coarser quartzose and lithic sands. Minor powdery, rhizomorphic and hardpan regolith carbonate accumulations. Closed shrubland dominated by Cassia spp. and Dodonaea spp., and minor chenopod shrubland dominated by Maireana spp.

Sub-rounded to rounded fine quartzose, and minor lithic, sands. Transverse dunes and low relief landsurface. Rounded red-brown fine quartzose sands and silts with occasional coarser quartzose and lithic sands. Lithic, quartz and occasional indurated gravels within swales. Grassland dominated by Stipa spp. & Astrebla spp. with occasional chenopods and scattered Casuarina pauper, Acacia spp. and Alectryon oleifolias.

Open shrubland of Acacia victoriae with minor Myoporum.montanum.

sands and silts with occasional coarser quartzose and lithic sands. Lithic, quartz and occasional indurated gravels within swales. Grassland dominated by Stipa spp. & Astrebla spp. with occasional chenopods and scattered Casuarina pauper, Acacia spp. and Alectryon oleifolias.

Sub-rounded to rounded fine quartzose, and minor lithic, sands. Hummocky dune field. Rounded red-brown fine quartzose sands and silts with occasional coarser quartzose and lithic sands. Lithic, quartz and occasional indurated gravels within swales. Grassland dominated by Stipa spp. & Astrebla spp. with occasional chenopods and scattered Casuarina pauper, Acacia spp. and Alectryon oleifolias.

Colluvial sediments

Sheet flow deposit

Sub-rounded to sub-angular lithic and quartzose sands with occasional gravels. Elongate landsurface depressions. Lithic and quartzose sands and gravels. Iregular contour banded surface pattern. Very minor powdery and hardpan regolfith carbonates and rounded, fine red-brown sands and silts. Chenopod shrubland dominated by Atriplex vesicaria, Maireana spp. and Enchylaena tomentosa.

Angular to sub-rounded lithic and quartzose gravels, sands and silts. Areas with slight topographic relief. Angular to sub-rounded lithic and quartzose gravels, sands and silts. Areas with slight topographic relief. Angular to sub-rounded lithic and quartzose gravels, sands and silts. Areas with slight topographic relief. Angular to sub-rounded lithic and quartzose gravels, sands and silts. Areas with slight topographic relief. Angular to sub-rounded lithic and quartzose gravels, sands and silts. Areas with slight topographic relief. Angular to sub-rounded gravels of silica and iron-oxide indurated regolith with quartzose gravels to sands, and minor lithic gravels. Areas with slight topographic relief. Angular to sub-rounded gravels of silica and iron-oxide indurated regolith and quartzose gravels and sands. Minor powdery, nodular and hardpan regolith carbonates and rounded red-brown fine sands and silts. Chenopod shrubland dominated Maireana spp.

Angular to sub-rounded lithic and quartzose gravels, sands and silts, abundant nodular and hardpan regolith carbonate accumulations. Chenopod shrubland dominated by Maireana sedifolia. Minor Atriplex vesicaria.

Sub-angular to sub-rounded lithic and quartzose sands, silts and gravels. Area with low topographic relief. Surface lag of coarse lithic and quartzose sands sonforming to a contour banding surface pattern. Rounded red-brown fine sands and silts. Chenopod shrubland dominated by Maireana spp.

Sub-angular to sub-rounded lithic and quartzose sands, silts and gravels. Area with low topographic relief. Surface lag of coarse lithic and quartzose sands conforming to a contour banding surfa

CHpd8

sands with shallow, circular depressions. Minor rounded red-brown fine sands and silts and sodic clays. Chenopod shrubland dominated by Atriplex vesicaria and grassland containing Muehlenbeckia cunninghamii and Astrebla spp., with minor shrubland of Acacia victoriae and Myoporum.montanum.

Fine to coarse sub-angular to sub-rounded lithic and quartz sands, silts and gravels. Areas with low topographic relief. Surface lag of coarse lithic and quartzose sands. Rounded red-brown fine sands and silts, abundant nodular and hardpan regolith carbonate accumulations. Chenopod shrublands dominated by Maireana pyramidata, Maireana sedifolia and Atriplex vesicaria.

Lacustrine sediments

Red-brown lithic, quartzose and

Red-brown lithic, quartzose and organic-rich silts and clays. Water supply reservoir with standing water and low topographic relief. Clayey silt. Minor quartzose sand and salt efflourecence. Sparsely vegetated with seasonally abundant grassland and forbs, including Xanthium spp.

IN-SITU REGOLITH

SHer1

Highly weathered bedrock

Kaolinitic, ferruginous and quartzose regolith typically with prominent bedrock fabrics and structures, variably silicified. Area with slight topographic relief. Surface lag of angular to sub-angular gravels of silicified regolith with angular quartzose gravels. Minor rounded red-brown fine sands and silts with minor powdery and hardpan regolith carbonate accumulations. Chenopod (open) shrubland dominated by Atriplex vesicaria with minor Casuarina pauper trees.

Moderately weathered bedrock

SMel1

SMel1

SMel1

SMel1

SMel3

SMel3

SMel4

SMel4

SMel5

SMel6

SMel6

SMel7

SMel7

SMel7

SMel7

SMel8

SMel

INDURATION MODIFIER **LANDFORMS** ------ Highway ---- Vehicle track ap - Alluvial plain ep - Erosional plain aw - Alluvial swamp er - Erosional rise fs - Sheet-flood fan el - Erosional low hill Siliceous induration eh - Erosional hill pd - Depositional plain ------ River or creek m - Made land ed - Drainage depression SCALE 1:25 000 UNIVERSAL TRANSVERSE MERCATOR PROJECTION LATITUDE OF ORIGIN: 0°. LONGITUDE OF ORIGIN: 141°

Compiled by A. C. Lewis (GA), K. A. Foster (CRC LEME/GA) and S. M. Hill (CRC LEME/UC), 2002

Cartography and GIS by A. C. Lewis (GA), K. A. Foster (CRC LEME/GA) and the GAV Division, Geoscience Australia.

It is recommended that this map be referred to as:

Lewis, A. C., Foster, K. A. & Hill, S. M., 2002, Mount Gipps Regolith-Landform Map (1:25,000 scale) Cooperative Research Centre for Landscape, Environments and Mineral Exploration

The regolith-landform polygons on this map are based on interpretation of 1:50 000 aerial photographs, and extensive field mapping. It is the intention of this map to identify and characterise surface materials and processes in a prospective area with approximately 70% regolith cover.

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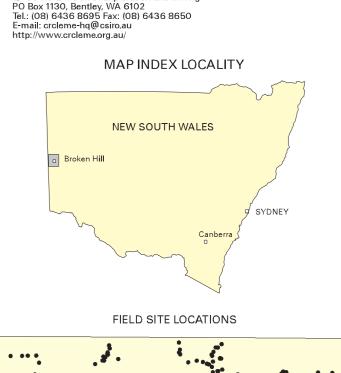
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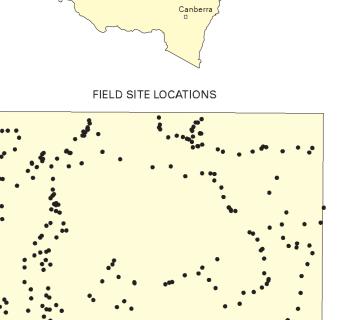
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HORIZONTAL DATUM: GDA94, UTM ZONE 54





The Mount Gipps 1:25,000 Regolith-Landform map is highlighted in grey. The orange areas are dominated by outcropping and subcropping Willyama Supergroup rocks, while the yellow shaded areas are dominated by regolith.

http://www.crcleme.org.au/

Horizontal coordinates on this map are based on the new earth-centered GEOCENTRIC DATUM OF AUSTRALIA (C To convert GDA to AGD (around 10 metre accuracy): Geographicals (from GDA94 to AGD66/84) - Add 5.58"

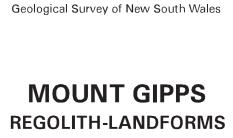


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REGOLITH-LANDFORMS

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SUBJECT TO REVISION