



Mapping Unit ¹	Major Attributes of Dominant Soil ²	Australian Classification ³ (Great Soil Group)	Dominant Principal Profile Forms	Area (ha)	Mapping Unit ¹	Major Attributes of Dominant Soil ²	Australian Classification ³ (Great Soil Group)	Dominant Principal Profile Forms	Area (ha)
SOILS OVERLYING QUATERNARY ALLUVIAL SEDIMENTS									
Plains to gently undulating plains									
Al	Hard setting brown sandy clay loam to silty clay loam to 0.2-0.3 m over bleached sandy clay loam to 0.3-0.14 m over alkaline heavy clay to medium heavy clay to 0.30-0.70 m over alkaline heavy clay to medium heavy clay	Brown Sodosol (sodic soil)	Dd1.33 Dd1.43 Dd1.13	11 170	Gl	Hard setting, crusting to weakly self-mulching grey brown to brown light to medium clay to 0.3-0.15 m over alkaline brown medium clay to 0.40-0.80 m over brown to medium heavy clay to 0.30-0.20 m over acid red brown medium to medium heavy clay to 0.70-1.50 m over weathered sedimentary rock. In some profiles, weak linear gully common depression-ventral interval 0.1-0.15 m. Crystals present on surface of cracking clay soil may have gypsum crusts present on surface of cracking clay soil.	Brown Vertisol (brown clay)	Ud1.31 Ud1.32 Ud1.33	25 300
Cc	Weakly self-mulching dark to grey brown light to medium clay to 0.3-0.18 m over alkaline dark to grey brown medium to medium heavy clay to 0.40-0.80 m over alkaline grey to grey brown medium heavy to heavy clay to 0.30-1.60 m over alkaline grey to grey brown or yellow brown medium to medium heavy clay	Grey/black Vertisol (grey clay/black earth)	Ug1.24 Ug1.16	2 000	Gd	Similar to above with abundant siliceous cobbles	Grey Vertisol (grey clay)	Ug1.24	180
Backplains, depressions and swamps									
Bk	Weakly self-mulching dark silty to medium heavy clay to 0.2-0.3 m over bleached sandy clay loam to heavy clay to 0.30-0.80 m over alkaline grey to yellow brown medium heavy to heavy clay; normal gully may be present	Black/grey Vertisol (black earth/grey clay)	Ug1.16	1 280	Kx	Linear gully complex (vertical interval 0.05-0.20 m, horizontal interval 4-11 m)	Brown Vertisol (brown clay)	Ug1.15 Ug1.12 Ug1.16 Ug1.31	5 520
Channels and swales									
Bp	Self-mulching dark to grey brown silty to medium clay to 0.4-0.8 m over bleached sandy clay loam to heavy clay to 0.30-0.60 m over alkaline dark, grey or yellow brown medium to heavy clay	Black/grey Vertisol (black earth/grey clay)	Ug1.16 Ug1.24	100	SOILS OVERLYING WEATHERED SEDIMENTARY ROCKS (continued)				
MODERATELY ALTERED ROCKS (CRETACEOUS WALLUMBILLA FORMATION, COREENA MEMBER) (continued)									
Gently undulating plains and gently undulating to undulating rises (continued)									
Hilltops (continued)									
Yt	Hard setting grey brown sandy clay loam to silty clay loam to 0.1-0.4 m with sporadic beach over neutral grey brown silty clay to medium clay	Grey Chromosol (grey Chromosol) (siltic soil)	Dy1.32 Dd1.32	1 050	Dd	Weakly self-mulching dark to grey brown medium to medium heavy clay to 0.2-0.15 m over alkaline grey brown medium to medium heavy clay to 0.30-0.50 m over neutral to acid grey brown to brown medium heavy clay to 0.70-1.50 m over weathered table sedimentary rock	Grey Vertisol (grey clay)	Ug1.25 Ug1.23 Ug1.31	4 460
Yb	Hard setting orange structured dark to grey brown silty clay to light medium clay to grey brown medium clay to 0.30-0.60 m over alkaline grey to grey brown medium clay	Black/grey Vertisol (siltic soil with grey brown clay)	Ug1.4 Ug1.5 Ug1.1	2 880	DdGp	Meltonian or normal gully complex (vertical interval 0.25-1.20 m, horizontal interval 4-11 m)	Grey Vertisol (brown clay/grey clay)	Ug1.25 Ug1.24 Ug1.31	270
Yr	Weakly self-mulching to coarse structured dark medium to medium heavy clay to 0.3-0.12 m over alkaline dark medium heavy to heavy clay to 0.40-0.90 m over alkaline dark to grey brown heavy to heavy clay	Black Vertisol (black earth)	Ug1.16	2 110	Depressions: Coarse self-mulching dark medium to medium heavy clay to 0.10-0.30 m over alkaline dark medium to medium heavy clay to 0.20-0.20 m over neutral to acid grey brown to brown medium heavy to heavy clay				
Yd	Self-mulching dark to grey medium heavy clay to 0.2-0.16 m over alkaline dark to grey medium to medium heavy clay to 0.35-0.85 m over alkaline grey to grey brown medium heavy to heavy clay	Grey/black Vertisol (grey clay/black earth)	Ug1.24 Ug1.16	600	Lm	Hard setting brown clay loam, fine sandy to light clay to 0.2-0.15 m over bleached sandy clay loam to light clay over alkaline brown medium heavy clay to 0.30-0.60 m over weathered table sedimentary rock, common to abundant siliceous and ironstone pebbles may be present. Linear gully frequently present (meander-depression, vertical interval 0.1-0.15 m, horizontal interval 5-12 m)	Grey Vertisol (brown clay/grey clay)	Ug1.25 Ug1.24	12 270
Yl	Hard setting grey brown sandy clay loam to silty clay loam to 0.2-0.1 m over bleached sandy clay loam to silty clay loam to 0.3-0.17 m over alkaline grey brown to brown medium clay to 0.30-0.40 m over alkaline brown, grey brown or yellow brown light medium to medium clay	Grey/brown Vertisol (sodic soil)	Dy1.43 Dd1.43	6 560	Nd	Weakly self-mulching to firm grey brown light to medium clay to 0.4-0.17 m over alkaline brown to red brown light medium to medium clay to 0.5-1.10 m over neutral to acid brown to red brown medium clay	Brown Vertisol (brown clay)	Ug1.31	5 970
Yk	Crusting to hard setting grey brown silty clay loam to silty clay to 0.3-0.15 m over alkaline brown to brown medium clay to grey brown silty clay to medium clay over alkaline grey brown medium clay	Dark/grey Sodosol/Dermosol (siltic soil with sodic soil)	Ud1.33 Dd1.33 Dy1.33	5 960	Nm	Weakly self-mulching to firm grey brown light to medium clay to 0.4-0.17 m over alkaline brown to red brown light medium to medium clay to 0.5-1.10 m over neutral to acid brown to red brown medium clay	Brown Vertisol (brown clay)	Ug1.31	5 970
Yh	Weakly self-mulching grey brown to dark silty to medium clay to 0.2-0.15 m with sporadic beach over alkaline grey brown medium to medium heavy clay	Grey Vertisol (siltic soil with grey clay)	Ug1.1	1 420	Wd	Hard setting brown sandy clay loam to silty clay loam to 0.14-0.40 m over bleached sandy clay loam to 0.17-0.45 m over acid red brown to yellow brown medium clay to 0.70-1.20 m over neutral to acid yellow brown medium clay to 1.00-1.60 m over weathered sedimentary rock	Red/brown Sodosol (sodic soil)	Dy1.33 Dd1.33 Dd1.33	1 140
Yg	Hard setting grey brown loamy sand to sandy clay loam to 0.25-0.55 m over bleached sandy clay loam to sandy clay loam over neutral to alkaline grey brown occasionally mottled sandy clay	Grey Sodosol (sodic soil)	Dy1.42 Dd1.42 Dy1.32 Dd1.32	2 810	Rc	Hard setting brown sandy clay loam to silty clay loam to 0.23-0.23 m usually with sporadic beach over alkaline brown to red brown medium clay to 0.45-1.00 m over acid brown to red brown medium clay to 1.00-1.60 m over weathered sedimentary rock	Brown Vertisol (red brown earth/sodic soil)	Dd1.33 Dd1.33 Dd1.33	2 790
Yf	Soft to hard setting brown loamy sand to loam, fine sandy to 0.25-0.45 m over bleached sand to loam, fine sandy to 0.30-0.65 m over alkaline grey brown to yellow brown clay loam, sandy to medium clay commonly with yellow mottles	Grey/brown Chromosol (siltic soil with yellow sodic soil)	Dy1.41 Dy1.42 Dy1.32 Dd1.41	2 250	Gently undulating to undulating rises and low hills				
Yc	Soft to firm brown sand to loamy sand to 0.2-0.40 m over acid to neutral brown to yellow sand	Orthic Tenosol (earthy sand)	Ud1.11 Ud1.21 Ud1.23	310	Ta	Firm brown, red brown or grey brown clay loam to light clay to 0.2-0.15 m over alkaline brown to red brown sandy clay to medium clay to 0.40-0.70 m over gravel or weathered sedimentary rock	Brown Vertisol (siltic soil)	Gd1.23 Gd1.13 Gd1.33	9 670
SOILS OVERLYING FRESH CRETACEOUS SEDIMENTARY ROCKS									
WALLUMBILLA FORMATION, DONCASTER MEMBER									
Gently undulating plains and rises									
Plains and hilltops									
Rm	Weakly self-mulching grey brown to brown light medium to medium clay to 0.1-0.20 m over alkaline grey brown to brown medium to medium heavy clay to 0.40-1.20 m over weathered table sedimentary rock	Grey/brown Vertisol (grey and brown clay)	Ug1.22 Ug1.23 Ug1.32	26 840	Ch	Hard setting brown to red brown sandy clay loam to clay loam to 0.08-0.30 m usually over bleached sandy clay loam to clay loam to 0.20-0.30 m over alkaline red brown medium to medium heavy clay to 0.60-0.80 m over neutral to alkaline grey acid medium heavy clay to 1.20-1.70 m over weathered sediments	Red/brown Vertisol (siltic soil)	Dd1.43 Dd1.33 Dd1.13	10 070
RmGp	Linear gully complex (vertical interval 0.08-0.20 m, horizontal interval 3-10 m). Profile similar to Roma with grey clay in depressions and brown clay on mounds; carbonate nodules may be present on surface of mounds	Grey/brown Vertisol (grey clay)	Ug1.32	1 670	Im	Hard setting grey brown to brown loam, fine sandy to sandy clay loam to 0.13-0.25 m over bleached sandy clay loam to 0.16-0.40 m over alkaline grey brown sandy clay to medium clay to 0.70-1.20 m over neutral to alkaline medium heavy clay	Grey Sodosol (sodic soil)	Dy1.33 Dd1.43 Dd1.43	12 460
Bk	Weakly self-mulching grey (Dy 27) medium to medium heavy clay to 0.1-0.15 m over alkaline grey medium heavy to heavy clay to 0.50-1.20 m over weathered medium	Grey Vertisol (black earth)	Ug1.26 Ug1.22	8 420	Co	Hard setting grey brown to brown loam, fine sandy to sandy clay loam to 0.15-0.40 m over bleached sandy clay loam to 0.16-0.40 m over acid to neutral mottled brown to grey brown sandy to medium clay	Brown/grey Sodosol (siltic soil)	Dy1.41 Dd1.42 Dd1.42	9 510
Mr	Self-mulching grey to dark light medium to medium clay to 0.1-0.13 m over alkaline dark medium heavy clay to 0.60-1.15 m over weathered table sedimentary rock; linear gully commonly present	Black Vertisol (black earth)	Ug1.12 Ug1.13	1 000	Yb	Firm to hard setting brown loamy sand to sandy clay loam to 0.30-0.50 m over bleached loamy sand to sandy clay loam to 0.40-0.60 m over acid to neutral mottled yellow brown, red brown or grey clay loam, fine sandy to sandy medium clay	Red/grey Sodosol (siltic soil)	Dy1.42 Dd1.41	7 390
Hilltops									
Mc	Hard setting brown sandy clay loam, fine sandy to silty clay to 0.2-0.1 m over bleached sandy clay loam to light clay to 0.24-0.18 m over alkaline brown light medium to medium clay to 0.40-0.80 m over alkaline brown medium to medium heavy clay to 0.80-1.60 m over weathered table sedimentary rock or colluvium	Brown Sodosol/Dermosol (siltic soil with sodic soil)	Dd1.33 Dd1.43 Ud1.32 Ug1.32 Dd1.13	5 010	Tr	Soft to firm brown sand to 0.20-0.40 m over neutral brown to red brown sand	Orthic Tenosol (earthy sand)	Ud1.23 Ud1.22 Ud1.43	170
McSp	Muckabay jabby phase	As above, with common siliceous and ironstone pebbles distributed in linear patterns		1 000	Dp	Hard setting gravelly to very gravelly brown loam, fine sandy to sandy clay loam to 0.10-0.20 m over sporadic beach over alkaline brown medium clay to 0.90-1.70 m over weathered sedimentary rock	Brown Sodosol (siltic soil)	Dy1.33 Dd1.43	5 720
Av	Weakly self-mulching grey brown light medium clay to 0.1-0.20 m over alkaline brown medium heavy clay to 0.40-1.20 m over alkaline brown medium heavy clay or weathered sedimentary rock	Grey Vertisol (grey clay)	Ug1.25 Ug1.16	2 130	STRONGLY ALTERED SEDIMENTS (CAINOZOIC)				
Kr	Hard setting to firm pale bleached to yellow brown or brown silty clay loam to light medium clay to 0.2-0.15 m over alkaline dark, grey brown medium to medium heavy clay to 0.30-0.80 m over alkaline yellow brown medium to medium heavy clay to 0.30-1.50 m over weathered table sedimentary rock, colluvium or alluvium; scabbed surfaces	Vertisol/Dermosol/Sodosol (siltic soil with sodic soil)	Ug1.1 Ug1.2 Ud1.33 Ud1.33 Dy1.43	1 860	Ar	Hard setting red brown to brown sandy loam to sandy clay loam to 0.20-0.17 m over acid to neutral red brown to red loam, fine sandy to sandy clay loam to 0.50-1.20 m over acid to neutral red, red brown or yellow brown occasionally mottled sandy clay loam to light clay to 0.80-1.70 m over weathered sediments	Red Kandosol (red earth)	Gd1.11 Gd1.12	14 200
Gently undulating to undulating rises									
Hillcrests and benches									
Ok	Firm to weakly self-mulching brown to red brown light to light medium clay to 0.30-0.20 m over alkaline brown to red brown medium clay to 0.25-0.40 m over alkaline brown to red brown medium clay to 0.40-0.80 m frequently with abundant carbonate segregations over weathered table sandstone	Brown Vertisol (siltic soil with brown and red clay)	Ud1.31	5 560	Wt	Meltonian gully complex (vertical interval 0.30-0.90 m, horizontal interval 6-18 m)	Grey Vertisol (brown clay)	Ug1.25 Ug1.24 Dd1.13 Dd1.33 Ug1.33	550
BUNGIL FORMATION									
Undulating rises									
Hilltops									
Md	Hard setting brown sandy clay loam to clay to 0.10-0.20 m with sporadic beach over alkaline brown medium clay to 0.30-1.20 m over weathered table sedimentary rock	Brown Sodosol (sodic soil)	Dd1.33	1 550	INDURATED ALTERED ROCKS (CRETACEOUS)				
Bh	Hard setting grey brown to brown sandy loam to 0.20-0.40 m over bleached sandy loam to 0.22-0.45 m over neutral to alkaline mottled yellow brown to grey brown silty clay to light medium clay to 0.80-1.40 m over weathered sedimentary rock	Brown Sodosol (sodic soil)	Dy1.42 Dy1.32 Dd1.32	2 020	Undulating to steep low hills				
Ww	Self-mulching dark to brown medium clay to 0.60-1.5 m over alkaline brown medium heavy clay to 0.80-1.20 m over weathered table sedimentary rock	Brown Vertisol (brown clay)	Ug1.13 Ug1.32	2 040	Escarpments				
SOILS OVERLYING WEATHERED SEDIMENTARY ROCKS									
MODERATELY ALTERED ROCKS (CRETACEOUS WALLUMBILLA FORMATION, COREENA MEMBER)									
Gently undulating plains and gently undulating to undulating rises									
Hilltops									
Ad	Hard setting grey brown to brown light to light medium clay to 0.2-0.15 m over alkaline brown to red brown light medium to medium heavy clay to 0.50-1.50 m over acid red brown to yellow brown medium heavy clay to 1.40-1.70 m over weathered sedimentary rock	Brown Vertisol (brown clay/red clay)	Ug1.34 Ug1.34 Ug1.32 Ug1.32 Ug1.36	1 160	Yp	Firm to hard setting very gravelly to cobbly brown to grey brown sandy clay loam to light medium clay to 0.10-0.20 m over mottled weathered sedimentary rock	Lupic Rudosol (stony)	Ud1.43 Ud1.43	1 580
Dm	Self-mulching grey brown to brown light medium to medium clay to 0.2-0.16 m over alkaline brown medium clay to 0.45-0.95 m over acid brown to yellow brown medium heavy clay to 0.70-1.30 m over weathered sedimentary rock; ironstone pebbles present in profile	Brown Vertisol (brown clay)	Ug1.34	12 470	Gently undulating to undulating plains, rises, low hills and plateaux				
DmGp	Linear gully complex (vertical interval 0.08-0.25 m, horizontal interval 4-14 m). Profile similar to Damaly with grey brown clay in depressions and brown clay on mounds; carbonate nodules and opium crystals may be present on surface of mounds	Grey/brown Vertisol (grey clay/grey clay/brown clay)	Ug1.23 Ug1.32	990	Mg	Hard setting commonly gravelly red brown to brown sandy loam to loam, fine sandy to 0.1-0.16 m over acid red brown, red or yellow clay loam to sandy clay loam to 0.20-0.45 m over gravel or indurated weathered sedimentary rock	Red/yellow Kandosol (siltic soil with red earth/earthy sand)	Ud1.43 Gd1.11 Gd1.21	14 680
DmGp	Linear gully complex (vertical interval 0.08-0.25 m, horizontal interval 4-14 m). Profile similar to Damaly with grey brown clay in depressions and brown clay on mounds; carbonate nodules and opium crystals may be present on surface of mounds	Grey/brown Vertisol (grey clay/grey clay/brown clay)	Ug1.23 Ug1.32	990	MgDp	Hard setting brown sandy loam to loam, fine sandy to 0.15-0.20 m over red brown to yellow acid to neutral brown loam, fine sandy to sandy clay loam to 0.30-1.40 m over indurated weathered sedimentary rock or colluvium	Yellow/brown Kandosol (yellow earth)	Gd1.41 Gd1.42 Gd1.21 Gd1.22	120
DmGp	Linear gully complex (vertical interval 0.08-0.25 m, horizontal interval 4-14 m). Profile similar to Damaly with grey brown clay in depressions and brown clay on mounds; carbonate nodules and opium crystals may be present on surface of mounds	Grey/brown Vertisol (grey clay/grey clay/brown clay)	Ug1.23 Ug1.32	990	MgDp	As above with sparse eucalyptus/banksia; bare rock outcrops on surface; mottled land			90
DmGp	Linear gully complex (vertical interval 0.08-0.25 m, horizontal interval 4-14 m). Profile similar to Damaly with grey brown clay in depressions and brown clay on mounds; carbonate nodules and opium crystals may be present on surface of mounds	Grey/brown Vertisol (grey clay/grey clay/brown clay)	Ug1.23 Ug1.32	990	Dn	Hard setting red brown to brown loamy sand to loam, fine sandy to 0.20-0.20 m over acid to neutral red to red brown loam, fine sandy to clay loam to 0.50-1.20 m over indurated weathered sedimentary rock or colluvium; abundant siliceous gravel in the profile	Red Kandosol (red earth)	Ud1.43 Gd1.11	5 600
DmGp	Linear gully complex (vertical interval 0.08-0.25 m, horizontal interval 4-14 m). Profile similar to Damaly with grey brown clay in depressions and brown clay on mounds; carbonate nodules and opium crystals may be present on surface of mounds	Grey/brown Vertisol (grey clay/grey clay/brown clay)	Ug1.23 Ug1.32	990	Tn	Hard setting red to red brown sandy loam to loam, fine sandy to 0.20-0.20 m over acid to neutral red to red brown loam, fine sandy to clay loam to 0.50-1.20 m over indurated weathered sedimentary rock or colluvium; abundant siliceous gravel in the profile	Red Kandosol (red earth)	Gd1.11 Gd1.12	4 300
DmGp	Linear gully complex (vertical interval 0.08-0.25 m, horizontal interval 4-14 m). Profile similar to Damaly with grey brown clay in depressions and brown clay on mounds; carbonate nodules and opium crystals may be present on surface of mounds	Grey/brown Vertisol (grey clay/grey clay/brown clay)	Ug1.23 Ug1.32	990	MISCELLANEOUS UNITS				
U	Weakly self-mulching dark to brown medium clay to 0.4-0.12 m over acid brown medium clay to 0.30-1.40 m over weathered table sedimentary rock; siliceous cobbles common	Brown Vertisol (brown clay)	Ug1.13 Ug1.23	1 520	UR	Urban land			930

INTENSITY STATEMENT
This is a low intensity soil survey. It is based on aerial photograph interpretation and ground observations of the order of one observation to an approximate area of 175 ha.

SCALE 1:100 000
Kilometres

TRANSVERSE MERCATOR PROJECTION
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NOTES:
1 Mapping units are named after the dominant soil profile class present but the proportion of dominant soil may vary between units.
2 The description refers to the expected range of attributes within the broadest concept of the named soil and not the full range of properties described by the survey.
3 Australian Classification after Isbell (1993). A Classification System for Australian Soils (third approximation).
4 Great Soils Group after Stace et al. (1968). A Handbook of Australian Soils.
5 Principal Profile Form after Northcote, K.H. (1979). A Factbook Key for the Recognition of Australian Soils.

ROMA RESOURCE ASSESSMENT SOILS
D.P.I. Ref. No. 93-124-P2980