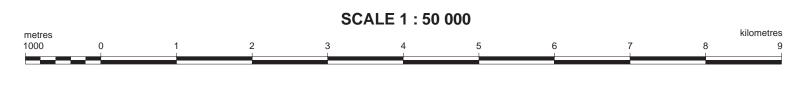




BRISBANE VALLEY LAND RESOURCE ASSESSMENT - MAP 1

BRISBANE VALLEY - ESK SHEET

SOILS



UNIVERSAL TRANSVERSE MERCATOR PROJECTION GRID LINES ARE 1 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID, ZONE 56 GRID VALUES ARE SHOWN IN FULL AT THE SOUTH WEST CORNER OF THE MAP AUSTRALIAN GEODETIC DATUM

REFERENCE

Major Attributes of Principal Soil

Distinguishing Attributes Associated with Principal Soil

Марриту	Offic	Associated with Principal Soil		le Forms ³	Classification⁴	(ha)	mapping of	major Attributes of Frincipal con	Profile Forms ³	Classification⁴
OILS OVERLYIN	NG ALLUVIUM DD PLAINS AND LOW T	ERRACES					Very shallow soils of D'AGUILAR	verlying weathering rock Very shallow loamy soil, usually rocky.	Um1.21 Um1.24 Um1.41 Um1.43	Leptic Rudosols
-	onal sands and loams						SOILS OVEDIVING	EINE CDAINED ACID ICNEOUS DOOVS	Um6.21 Um6.61	
Cr CRESSBF	rea	ratified soil with a sandy surface and neutral action trend. essbrook soil with common to abundant	Gn2.02 Uc1.23 Uc1.43	Uc1.21 Uc1.41 Uc2.21	Stratic Rudosols	399 54	(<i>Crossdale Rhyoli</i> Texture contrast soil			
r(rp) rocky phase	ase coa Str	ratified soil with a loamy surface soil. ratified soil with a loamy surface and utral reaction trend.	Gn2.12 Gn3.12	Gn2.42 Um1.21	Stratic Rudosols; Chernic or Chernic-Leptic Tenosols	1 298	Bd BURRUNDO	Sandy to loamy surface soil over brown, black, yellowish brown or greyish brown clay subsoil with neutral to alkaline reaction trend.	Db2.43 Dd1.33 Dd2.33 Dd2.43 Dy2.13 Dy2.33 Dy2.42 Dy2.43	Brown, Black or Grey Sodosols
d MONSILD		amy, strongly structured soil with a	Um1.23 Um5.52 Gn3.12	Um1.44 Um6.23 Gn3.22	Black or Brown Dermosols	2 288	Bm BERRIMA ²	Loamy surface soil over brown clay subsoil with acid reaction trend.	Db2.41 Dy3.41	Brown Sodosols; Brown Chromosols
		adational to uniform profile and neutral action trend.	Gn3.42 Uf6.32 Um6.31	Gn3.43 Uf6.33			Very shallow soils of	verlying weathering rock Very shallow sandy soil, usually rocky.	Uc1.44 Uc2.12 Um1.41 Um2.12	Leptic Rudosols
	TO MID TERRACES A	ND ALLUVIAL PLAINS					COIL C OVER LYING	COADCE CRAINED ACID ICNEOUS BOCKS	Um3.21	
GALLANA	ANI Loa bro	amy surface soil overlying reddish own to black, well structured clay subsoil. eutral to alkaline reaction trend.	Db1.12 Db1.32 Dd1.13	Db1.22 Dd1.12 Dr2.22	Brown, Black, Red or Grey Chromosols; Brown, Black, Red or Grey	3 311	(Eskdale Granodio Texture contrast soil	COARSE-GRAINED ACID IGNEOUS ROCKS orite and other granitic intrusions) s with neutral to alkaline reaction trend		
GALLANA rocky phas	ANI Ga	allanani soil with common to abundant arse gravel in the surface soil.	Gn3.22	Gn3.25	Dermosols	35	Ph PINCH	Sandy surface soil over brown clay subsoil. Subsurface horizon weakly developed.	Db1.12 Db1.22 Db2.12	Brown Chromosols
GUNYAH	Loa gre	amy surface soil over black, brown or dark sy clay subsoil with neutral to alkaline action trend.	Db1.13 Dd1.13 Dd2.33	Dd1.12 Dd1.33 Dy2.13	Brown, Black or Grey Sodosols; Brown, Black or Grey Chromosols	959	Gi GILLA	Sandy surface soil over brown or yellowish brown clay subsoil. Subsurface bleached.	Db1.42 Dd1.33 Dy2.32 Dy2.43 Dy3.13 Dy3.42	Black or Brown Chromosols; Black or Brown Sodosols
form clay soils BASEL		ey clay (cracking or non-cracking). bsurface may be bleached.	Uf3 Ug3.2	Uf6.33 Ug5.21	Grey Vertosols; Grey Dermosols	1 630	Bi BIARRA	s with neutral to acid reaction trend Sandy surface soil over brown to yellow clay subsoil.	Db2.41 Dy2.31 Dy3.31	Brown, Yellow or Grey Chromosols
BASEL	Ва	isel soil with gilgai microrelief.	Ug5.24 Ug5.28	Ug5.25		1 182	Rb REBEL	Loamy surface soil over red clay subsoil.	Dr2.12 Dr2.22 Dr2.42 Dr3.31	Red Chromosols
gilgai phas DUGGUA		own cracking clay.	Ug5.31 Ug5.33	Ug5.32 Ug5.34	Brown Vertosols	-	Uniform sands	Deep sand showing little texture change with	Uc1.22 Uc2.23	Orthic Tenosols
COOEEIM	MBARDI Se	elf-mulching black cracking clay.	Ug5.35 Ug5.11 Ug5.15	Ug5.14 Ug5.16	Black Vertosols	2 238		depth. Neutral reaction trend.	Uc5.23 Gn2.55	
S OF THE MID TO	O HIGH TERRACES		Ug5.17				Fs	Very shallow sandy soil.	Uc1.21 Uc1.22 Um1.41 Um3.21	Leptic Rudosol
sture contrast so	oils R Lo	amy surface soil over brown, yellowish	Db1.33	Db1.43	Brown or Grey Sodosols;	8 883	(Maronghi Creek	G FINE-GRAINED SEDIMENTARY ROCKS Group, Cressbrook Creek Group, Marumba Bed s with neutral to alkaline reaction trend	s: chert, jasper, m	udstone, shale, greyw
SPENICES	bro alk stro	own or grey clay subsoil with neutral to caline reaction trend. Subsurface often ongly bleached.	Db2.43 Dy2.42 Dy3.33	Dy2.33 Dy2.43 Dy3.43	Brown or Grey Chromosols		EV ESKVALE	Loamy surface soil over brown, yellowish brown or grey clay subsoil. Subsurface often strongly bleached.	Db1.32 Db1.42 Db2.42 Dy2.42 Dy2.43 Dy3.33	Brown or Grey Sodosols; Brown or Grey Chromosols
SPENCEF gilgai phas	nse R Sp	encer soil with gilgai microrelief.				435 37	HORSE	s with acid reaction trend Loamy surface soil over brown to yellow clay	Dy3.42 Dy3.43 Dy2.31 Dy2.21	Brown, Yellow or Grey
rocky phas	Sa	arse gravel or cobble in the surface soil.	Db2.41	Dy2.41	Brown, Yellow or Grey	1 993	Fm FREEMAN ²	subsoil. Subsurface often strongly bleached. Loamy surface soil over red clay subsoil.	Dy2.41 Dy3.41 Dr2.11 Dr2.21	Chromosols; Brown, Yellow or Grey Kurosols Red Chromosols;
OTTABA gilgai phas	stro Ott	bsoil with acid reaction trend. Subsurface ongly bleached. taba soil with gilgai microrelief.	Dy3.41	Dy5.41	Kurosols; Brown, Yellow or Grey Sodosols	459		e contrast soils with neutral reaction trend	Dr2.31 Dr2.41 Dr3.21 Dr3.31	Red Kurosols; Red Sodosols
OTTABA rocky phas	Ott	taba soil with common to abundant coarse avel or cobble in the surface soil.				626	Nn NOON	Loamy surface soil over red or brown clay subsoil.	Db1.12 Dr2.12 Dr2.22 Dy2.12 Gn3.12 Gn3.24	Brown or Red Chromosols; Brown or Red Dermosols
		NED SEDIMENTARY ROCKS on, Helidon Sandstone: sandstone	e, conglo	omerate, s	hale, siltstone)		Very shallow soils of WI WELTON ²	verlying weathering rock Very shallow loamy soil, associated with upper slopes and ridges.	Um1.21 Um1.23 Um1.43 Um4.11	Leptic Rudosols
	oils with neutral to alka		Db1.33 Db1.43	Db1.42 Db2.43	Brown or Grey Sodosols; Brown or Grey	14 512		METAMORPHIC ROCKS	Um4.13 Um6.23	
BEPPO	Su gei Be	bsurface strongly bleached. Subsoil nerally sodic. ppo soil with common to abundant coarse	Dy2.42 Dy3.33	Dy2.43 Dy3.43	Chromosols	966	Texture contrast soil	Loamy surface soil over brown, red or yellow	Db1.42 Dr2.31	Red or Brown Sodosols;
rocky phas	Loa	avel or cobble in the surface soil. amy surface soil over brown, yellowish bwn or black clay subsoil. Subsurface mmonly with sporadic (weak) bleach.	Db1.32 Db2.33 Dy2.13	Db1.33 Dd1.33 Dy2.33	Brown, Grey or Black Sodosols; Brown, Grey or Black Chromosols	1 776		clay subsoil. Subsurface often strongly bleached. Neutral to acid reaction trend.	Dr2.41 Dr3.31 Dr3.41 Dy2.31 Dy2.41	Red or Brown Kurosols Red or Brown Chromoso
WATT rocky phas	Su Wa	ibsoil generally sodic. att soil with common to abundant coarse avel or cobble in the surface soil.	Dy3.33	,		251	Yn YEDNIA ²	rerlying weathering rock Very shallow loamy soil, usually rocky.	Um1.21 Um1.41 Um1.43	Leptic Rudosols
	oils with neutral to acid	amy surface soil over brown or yellow clay	Dy2.12	Dy2.42	Brown or Yellow	-	Mapping U	it ¹ Geology	Predominant Vegetation	Main Soils
KIPPER	Su Lo	bsoil. Subsurface may be bleached. bsoil not sodic. amy surface soil over red subsoil grading to	Dy3.21 Dy3.42 Dr2.21 Dr2.31	Dy3.31 Dr2.22 Dr2.41	Chromosols Red Chromosols	174	SOIL ASSOCIATION	IS ON STEEP HILLS Coarse-grained sedimentary rocks	Eucalypt open forest	Gh, Gk, Tu, Cl, Kp, Wt
GREENHI	Su soc	own or yellowish brown with depth. bsurface may be bleached. Subsoil not dic. amy surface soil over brown or red clay	Dr2.31 Dr3.21 Db1.12	Dr4.21 Db1.22	Brown or Red Chromosols	224	Hcs	(Esk Formation, Bryden Formations, Helidon Sandstone) Coarse-grained sedimentary rocks	Softwood scrub	Lv, Ca, Gk
	sul	bsoil. Subsoil not sodic.	Dr2.12 Dy2.12	Dr2.22	1238		Hnf	(Esk Formation) Intermediate to basic volcanic rocks (Neara Volcanics)	Eucalypt open forest	Le, Na, Pd, Dg, St
TURTLE	cla	trend amy surface soil over yellow, brown or red sy subsoil. Subsurface strongly bleached. dic subsoil.	Db1.31 Dr3.41 Dy2.41	Dr2.41 Dy2.31 Dy3.31	Brown or Yellow Kurosols; Brown or Red Sodosols	1 630	Hns	Intermediate to basic volcanic rocks (Neara Volcanics)	Softwood scrub	De, Dg
	ture contrast soils with	n neutral to alkaline reaction trend amy surface soil over brown clay subsoil.	Dy3.41	Db1.12	Brown Chromosols;	300	Hrf	Fine-grained acid igneous rocks (Crossdale Rhyolite, undifferentiated rhyolites/trachytes) Coarse-grained acid igneous rocks	Eucalypt open forest	Ek, Bm
LAKEVIEN	So ve	amy surface soil over brown clay subsoil. iftwood scrub or formerly softwood scrub getation. neutral to acid reaction trend	Db2.11 Db1.13 Dy2.12	Db1.12 Db2.12 Gn3.22	Brown Chromosols; Brown Dermosols	300	Hgf	Coarse-grained acid igneous rocks (Eskdale Granodiorite and other granitic intrusions) Fine-grained sedimentary rocks	Eucalypt open forest Eucalypt open forest	Rb, Bl, Iv, Fs Nn, Wl, Hs, Fm, Ev
HIBISCUS	•	neutral to acid reaction trend ad loamy soil.	Gn2.11 Gn2.15 Um1.43	Gn2.12 Gn4.12 Um4.21	Red Kandosols	1 587	Hff	(Cressbrook Creek Group, Maronghi Creek Group, Marumba Beds) Fine-grained sedimentary rocks	Softwood scrub	Nn, Wl, Hs, Fm, Ev
YELLOWE	BANK Ye	ellow or brown loamy soil.	Gn2.22 Gn2.42 Um5.52	Gn2.24 Um5.21	Brown or Yellow Kandosols	196	Hfs	(Cressbrook Creek Group) Metamorphic rocks (Jimna Phyllite)	Eucalypt open forest	Bu, Yn
BEER		ack, brown or grey cracking clay. Forest or merly forest vegetation.	Ug5.12 Ug5.14	Ug5.13 Ug5.21	Black, Brown or Grey Vertosols	513	MISCELLANEOUS			
BEER rocky phas	Ве	eer soil with common to abundant coarse avel or cobble in the surface soil.	Ug5.32	Ug5.34		13	S	Stream		
CABOONI		ey or brown cracking clays. Softwood rub or formerly softwood scrub vegetation.	Ug5.22 Ug5.32	Ug5.24 Ug5.34	Brown or Grey Vertosols	1 222	Lake	Dam		
Shallow soils GRIENKE		rock ery shallow loamy soil, associated with per slopes and ridges.	Um1.21 Um1.41	Um1.23 Um1.43	Leptic Rudosols	10	Quar	Quarry		
a Volcanics	s: andesite, volcan	E TO BASIC VOLCANIC ROCKS nic conglomerate, agglomerate and	d tuff)				Urbn	Urban area		
MOORE	bro	aline reaction trend amy surface soil over brown, yellowish bwn or greyish brown clay subsoil. bsurface strongly bleached.	Db1.42 Dy2.33 Dy2.43	Db1.43 Dy2.42 Dy3.42	Brown, Grey or Yellow Sodosols; Brown, Grey or Yellow Chromosols	5 097	●1234	Soil profile sampling site		
DUNWICH	H Lo: yel	amy surface soil over black, brown, llowish brown or greyish brown clay subsoil.	Dy3.43 Db1.13 Db1.32	Db1.23 Db1.33	Brown, Black, Yellow or Grey Chromosols; Brown,	3 224		Solid lines represent clear or observed boundaries betwe Dashed lines represent either approximate boundaries or	., 0	veen mapping units:
ture contrast so		absurface commonly with sporadic (weak) each.	Dd1.33 Dy2.32	Dy2.13 Dy2.33	Black, Yellow or Grey Sodosols		~~	Approximate boundaries are based on geology mapp patterns and vegetation from aerial photographs Gradual or diffuse boundaries are used where a clean	ping units and/or interpre	etation of terrain
PADDY	bro Su	amy surface soil over brown, yellowish own or greyish brown clay subsoil. ibsurface commonly bleached.	Db1.21 Dy2.31 Dy3.31	Db1.41 Dy2.41 Dy3.41	Brown or Grey Kurosols; Brown Sodosols; Brown Chromosols	780	Depth crite	field observations and aerial photograph interpretations are based on Isbell, R.F. (1996), The Australian Soil Classification Very shallow <0.25 m Shallow 0.25-<0.	on:	ate 0.5-<1.0 m
STEVENT		amy surface soil over red clay subsoil. crast soils with neutral reaction trend	Dr2.21 Dr3.11	Dr2.31 Dr3.31	Red Chromosols; Red Kurosols	202	Colour cla Soil layers	sses based on Isbell, R.F. (1996), <i>The Australian Soil Classification</i> : surface soil corresponds to the A1 horizon		0.0 \(\circ\) (1.0 III
LINVILLE	Loa	amy surface soil over brown, black, red or eyish brown clay subsoil.	Db1.12 Dd1.12 Dr2.22	Db1.22 Dr2.12 Dy2.12	Brown, Grey, Red or Black Chromosols	4 164	The map i	subsurface corresponds to the A2 horizon subsoil corresponds to the B or D horizons eference applies to the entire study area and is the same for both	ı soils maps (Map 1 and	Map 2).
NEARA		ark, strongly structured surface horizons a iform, gradational or texture contrast soil	Dy2.22 and neutral Dd1.12	I to alkaline r	eaction trend Brown, Black or Grey	2 533	Mapping units are named after the dominant soil profile class. The dominant soil profile class occupies ≥ 60% of a mapping unit area. The use of two symbols (e.g. Bp-Wt) indicates a compound mapping unit			
	wit bro veç	th a loamy to light clay surface over black, own or greyish brown clay subsoil. Forest getation.	Dy2.12 Gn3.41 Uf6.32	Gn3.12 Uf6.31 Uf6.33	Dermosols; Brown, Black or Grey Chromosols		These a compon	wo soil profile classes are co-dominant. The minor soil profile classes that do not actually occur as mapping ents of the miscellaneous soil units on steep hills and mountains.	They are listed here so	as that the
DEER	wit bro	iform, gradational or texture contrast soil the a loamy to light clay surface over black or own clay subsoil. Softwood scrub or merly softwood scrub vegetation.	Db1.12 Dd1.12 Uf6.31	Db1.13 Gn3.52 Uf6.32	Brown or Black Dermosols; Brown or Black Chromosols	394	3 Principa 4	erence provides a complete list of soil profile classes likely to be en profile forms are from Northcote, K.H. (1979), A Factual Key for an Classification from Isbell, R.F. (1996), The Australian Soil Classification from Isbell, R.F. (1996), The Australian R.F. (1996), The Au	the Recognition of Austra	alian Soils.
JIMNA	clays Bla	ack or brown cracking clay with alkaline	Ug5.12	Ug5.14	Black or Brown Vertosols	84	5	on Classification from Isbell, R.F. (1996), The Australian Soil Classed total areas for both soils map sheets (Map 1 and Map 2).	modiuit.	
Uniform cracking of Jm JIMNA	Bla	ack or brown cracking clay with alkaline action trend.	Ug5.12 Ug5.31 Ug5.35	Ug5.14 Ug5.32	Black or Brown Vertosols	84	5	ed total areas for both soils map sheets (Map 1 and Map 2). BRISBANE VA	ALLEY AREA - ESK SI SOILS If. No. 99-BVL-I-P 3232	HEET

SURVEY by B.P. Harms and S.M. Pointon, Department of Natural Resources and P. Sorby, formerly of the Department of Primary Industries. CARTOGRAPHY by G.J. Finney, Natural Sciences Precinct, Department of Natural Resources, Indooroopilly, Brisbane. BASE MAP compiled from the Digital Cadastral Data Base, Department of Natural Resources, Brisbane.

ANDURAMBA

CROWS NEST

MOUNT HALLEN

SOMERSET DAM

LOWOOD

PRODUCED at the Natural Sciences Precinct by the Spatial Information and Mapping Group, Resource Sciences and Knowledge, Department of Natural Resources, Indooroopilly.

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