

SOILS OF BABINDA - CAIRNS AREA, NORTH QUEENSLAND

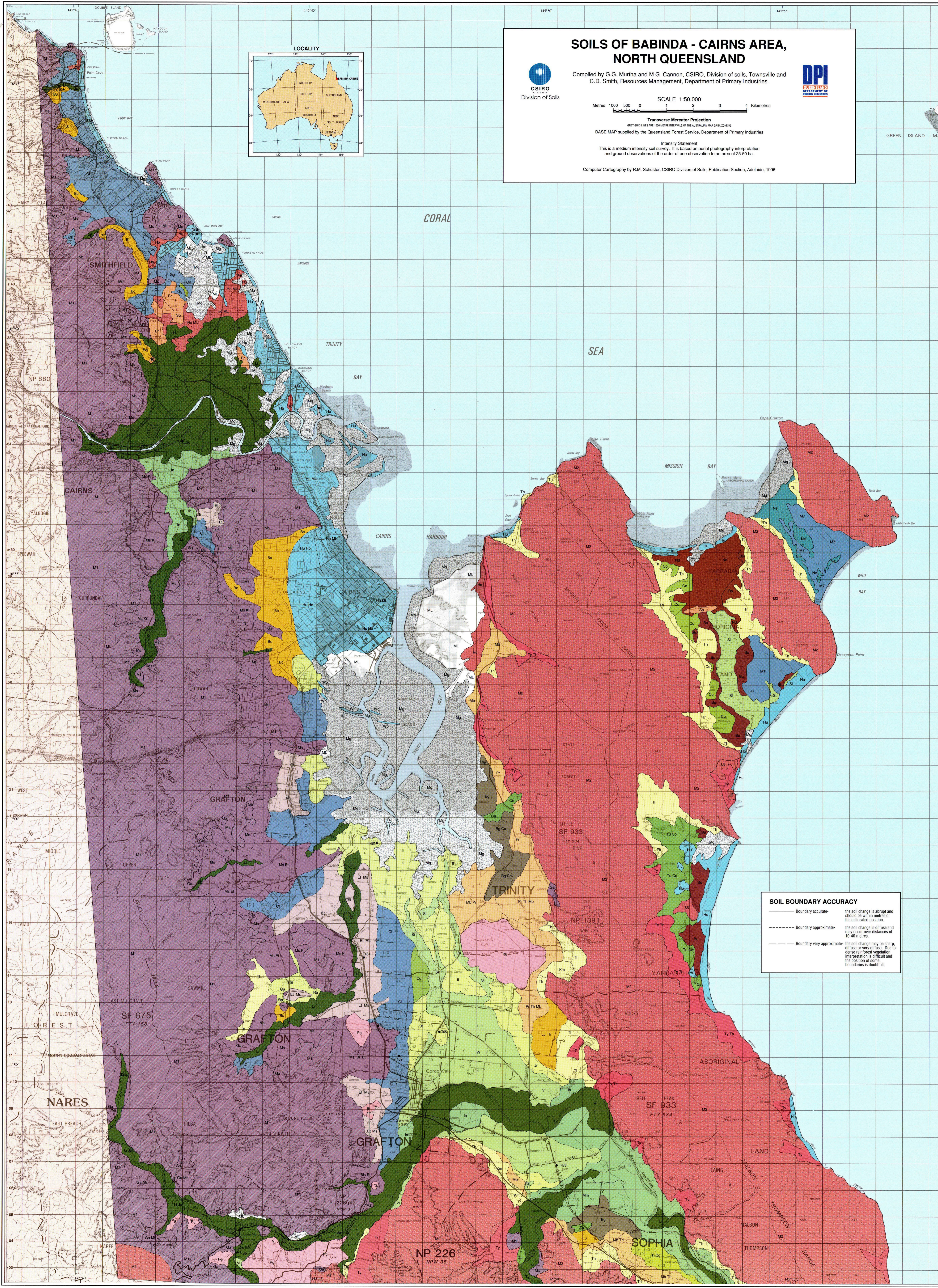
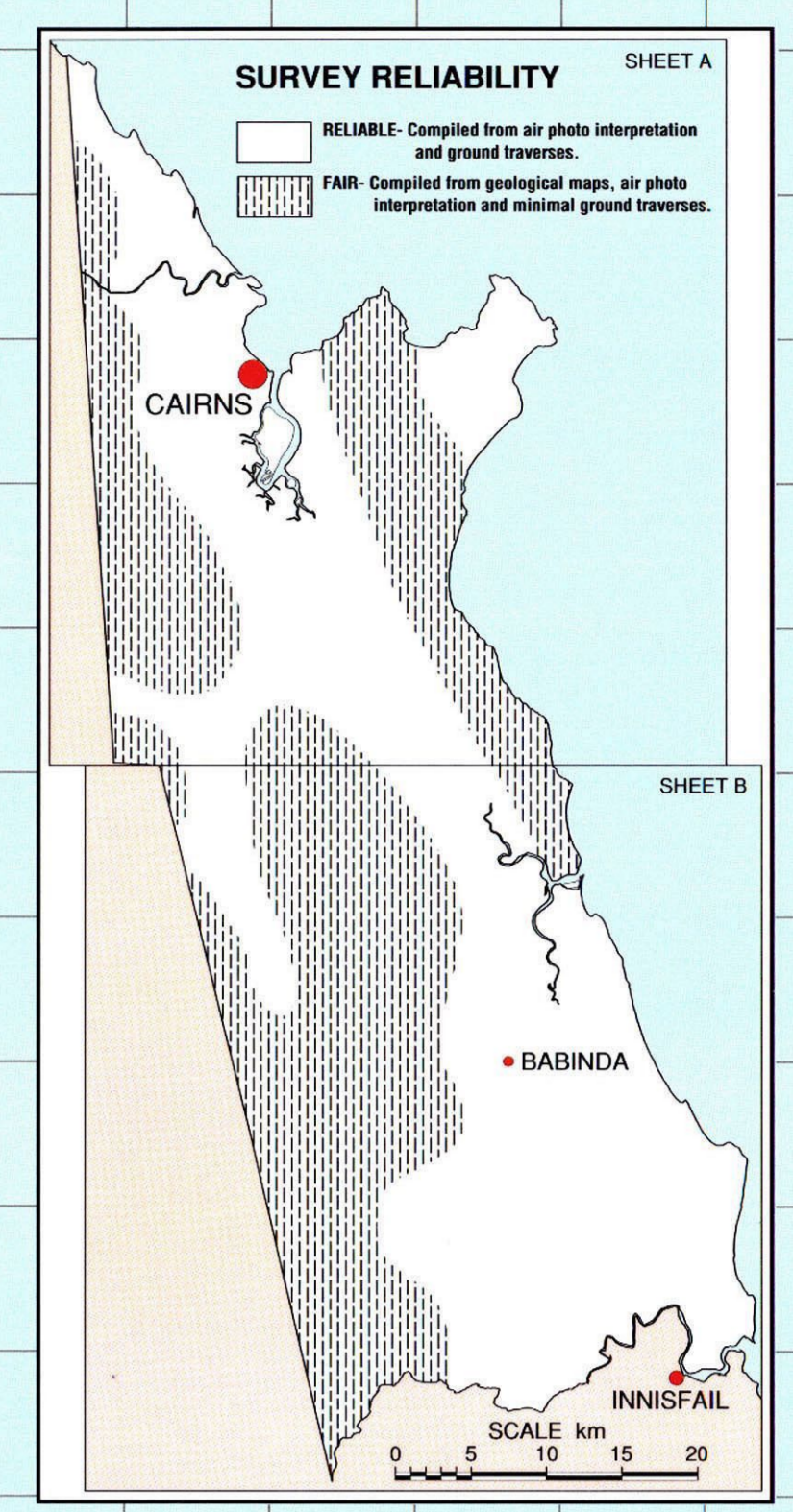
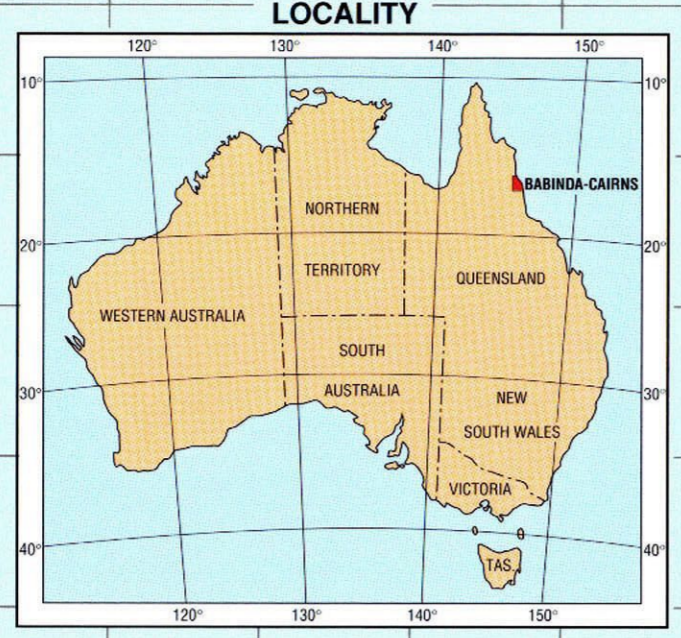
Compiled by G.G. Murtha and M.G. Cannon, CSIRO, Division of Soils, Townsville and C.D. Smith, Resources Management, Department of Primary Industries.



SCALE 1:50,000
Metres 0 1000 2000 3000 4000 Kilometres

Transverse Mercator Projection
GUYA GUYA LINE IS 150 METRE INTERVALS OF THE AUSTRALIAN MAP GRID, ZONE 56
BASE MAP supplied by the Queensland Forest Service, Department of Primary Industries

Intensity Statement
This is a medium intensity soil survey. It is based on aerial photography interpretation and ground observations of the order of one observation to an area of 25-50 ha.
Computer Cartography by R.M. Schuster, CSIRO Division of Soils, Publication Section, Adelaide, 1996



SOIL BOUNDARY ACCURACY
— Boundary accurate: the soil change is abrupt and should be within metres of the delineated position.
- - - - - Boundary approximate: the soil change is diffuse and may occur over distances of 10-40 metres.
- - - - - Boundary very approximate: the soil change may be sharp, diffuse or very diffuse. Due to dense clivestock vegetation interpretation is difficult and the position of some boundaries is doubtful.

SOIL ASSOCIATION	MAC ⁽¹⁾	ESD ⁽²⁾	PPF ⁽³⁾	MAJOR CHARACTERISTICS OF DOMINANT SOIL
SOILS FORMED ON BEACH RIDGES				
Hu	HELL	Acric, Podsol	Podsol	Ud4.21 Pale to black A1 horizon; weakly developed A2; brown or pale brown B horizon; coarse sand throughout.
Wo	WONGALING	Semiaquic, Podsol	Podsol	Ud4.22 Grey A1 horizon; bleached A2; yellow, mottled brown and black B horizon; coarse sand throughout.
Gg	GOOGARRA	Semiaquic, Podsol	Podsol	Ud4.23 Dark A1 horizon; bleached A2 horizon; mottled yellow B horizon; coarse sand throughout.
Bc	BIRCONAN	Red, Kandisol	Red Earth	Gd2.1p Brown sandy loam A ₁ ; weakly developed sandy loam A2; yellowish red or red sandy loam to sandy clay massive B horizon.
Sp	SPANDIS	Orthic, Tenosol	Earthy Sand	Ud4.21 Dark sand A1 horizon; weak to moderately developed A2 horizon; yellowish brown to yellow sandy loam massive B horizon.
Nd	NEEDEP	Aquic, Podsol	Peaty Podsol	Ud5.11 Black B ₁ A1; dark grey brown sand or sandy loam massive B horizon; water ponded for long periods.
M7	MISCELLANEOUS UNIT			Pipery podsol on parabolic dunes
SOILS OF BASIC ROCK ORIGIN				
Pg	PIRGIN	Red, Ferrisol	Krasnozem	Gd3.11 Dark reddish brown clay loam A1 with strong clay structure; fine dark red massive or weak blocky light clay B1; red medium clay strongly structured B2 horizon; very deep soils.
Eu	EUBENANGEE	Red, Ferrisol	Krasnozem	Gd3.11 Dark red clay loam A1; may be some 2-3 cm diameter ironstone gravel; thick dark red massive light clay B1; dark red medium clay moderate to strongly structured B2; laterite can occur at about 1m.
Ga	GARRAINDIA	Red, Ferrisol	Krasnozem	Gd3.11 Dark reddish brown clay loam A1; reddish brown clay massive B horizon; moderate to strongly structured B2 horizon; may have some light grey mottling from about 1m.
Bn	BINGIL	Red, Ferrisol	Krasnozem	Ud6.31 Brown light clay A1 horizon; red strongly structured medium clay B2; moderately deep to deep soils; may have amphibolite gravel throughout.
Ki	KIMBERLEY	Red, Ferrisol	Krasnozem	Ud6.31 Yellowish medium clay A1 horizon over red or dark red strongly structured medium clay B horizon; may be gravelly throughout.
SOILS OF METAMORPHIC ROCK ORIGIN				
Ga	GALMARA	Red, Dermosol	? Red Podsolc soil	Ud4.22 Reddish brown clay loam A1; weakly developed A2; red or yellowish red clay loam to light medium clay B horizon with weak to moderate structure; strongly weathered; saprolite from 50cm.
Bt	BICTON	Brown, Dermosol	Xanthozem	Gd3.71 Greyish brown sandy loam A1; reddish brownish yellow and red fine sandy clay loam to silty medium clay B horizon with moderate fine blocky structure; solum 90-150cm deep.
Mi	MISSION	Red, Dermosol	Red Earth	Ud5.52 Reddish brown sandy clay loam A1; red sandy clay loam to silty clay massive B horizon; other grades to pale red medium clay with much transported metamorphic rock gravels.
Bu	BUCHAN	Brown, Dermosol	Yellow Earth	Ud5.52 Brown clay loam A1; brown or reddish yellow silty clay loam massive B horizon; moderate to high content of transported metamorphic rock gravels.
Cl	CLIFTON	Yellow, Kandisol	? Yellow Podsolc soil	Gd2.74 Grey brown sandy clay loam A1; bleached A2; reddish brownish yellow and light grey sandy light clay massive B horizon.
Ed	EDMONTON	Yellow, Dermosol	? Yellow Podsolc soil	Gd3.71 Dark greyish brown clay loam A1; mottled brownish yellow and reddish yellow strongly structured medium clay B horizon.
Mt	MOUNTAINOUS UNIT			Dominantly Galmara series with lesser Bicton and Bingil series
SOILS OF GRANITIC ORIGIN				
Ut	UTCHEE	Red, Kandisol	No suitable group	Gd2.14 Dark reddish brown to brown clay loam or light clay A1; red massive or weakly structured medium clay B horizon grades to strongly weathered saprolite from 150-200cm.
Ty	TYSON	Red, Kandisol	Red Earth	Ud6.52 Dark reddish brown sandy clay loam A1 horizon; dark red massive sandy loam to sandy light or medium clay B horizon.
Th	THORPE	Brown, Kandisol	Yellow Earth	Gd2.21 Brown sandy loam A1; yellowish brown massive sandy loam B horizon; mottled pale brown and light grey at depth.
Km	KIRRAMA	Yellow, Kandisol	Yellow Earth	Gd2.11 Black brown clay loam A1 horizon; 20cm deep; yellow massive sandy light clay B horizon.
Mb	MALBON	Brown, Kandisol	? Yellow Earth	Gd2.11 Dark greyish brown sandy clay loam A1 horizon; brownish yellow to light grey massive sandy light clay B horizon.
Lv	LUSGERR	Oxyaquic, Hydrosol	Gray Earth	Ud5.23 Dark grey sandy loam A1; light grey massive sandy loam to sandy clay loam B horizon.
Pf	PRIOR	? Yellow, Podsolc soil	Podsolc soil	Gd2.84 Dark grey sandy clay loam A1; pale A2 horizon; mottled light grey sandy light clay B horizon; stratified B horizon.
Mt	MOUNTAINOUS UNIT			Dominantly Utchee series with Tyson series on small alluvial fans included
WELL DRAINED SOILS FORMED ON ALLUVIUM				
Jp	JAPDON	Sialic, Rubisol	Alluvial Soil	Ud1.21 Stratified coarse sands and gravels with large boulders common.
Lp	LIVERPOOL	Orthic, Tenosol	No provision	Ud5.52 Dark grey brown silty loam A1; yellowish brown silty loam to silty clay massive B horizon; grades to fine sandy sediments from about 60cm.
Ca	CANDE	Brown, Kandisol	Yellow Earth	Gd2.24 Black loam fine sandy loam A1 horizon; brownish yellow fine sandy clay massive B horizon.
Tu	TULLY	Brown, Dermosol	No provision	Gd3.71 Dark greyish brown silty loam to silty clay loam A1 horizon; yellowish brown silty clay loam to light clay B horizon with moderate fine blocky structure; ironstone boulders common with depth.
Im	INNISFAIL	Brown, Dermosol	No provision	Ud6.32p Silty clay loam A1; moderate to strongly structured B2 horizon; may be mottled at depth and overlies stratified sediments.
Mm	MOSSMAN	Yellow, Dermosol	No provision	Gd3.7p Dark loam and dry clay loam to light medium clay A horizon; brownish yellow light medium clay structured B horizon; may be mottled at depth and overlies stratified sediments.
Vr	VRIGAL	Red, Kandisol	Red Earth	Gd2.11 Brownish red massive sandy clay loam B horizon; yellowish red massive sandy clay loam B horizon.
Jr	JARRA	Brown, Dermosol	? Yellow Podsolc soil	Gd3.91 Dark greyish brown loam A1; mottled yellowish brown and yellowish red light grey sandy structured B horizon.
Sr	SILKWOOD	Red, Kandisol	Red Earth	Gd2.11 Dark grey sandy loam A1 horizon; yellowish red sandy light clay massive B horizon.
POORLY DRAINED SOILS FORMED ON ALLUVIUM				
Cc	COOM	Redoxic, Hydrosol	No provision	Ud6.4p Brownish grey light clay A1; mottled brownish yellow and light grey massive structured medium clay B horizon.
Dd	DARADGEE	Redoxic, Hydrosol	No provision	Ud6.41 Yellowish brown light clay A1; mottled dark yellowish brown and reddish brown light to medium clay structured B horizon.
Tt	TAMARA	Oxyaquic, Hydrosol	? Gleyed Podsolc soil	Ud6.33 Dark greyish brown light to medium clay A horizon; grey light to medium clay coarse blocky structured B horizon; may have ironstone at depth.
Ra	RAMEH	Brown, Dermosol	? Yellow Podsolc soil	Ud6.34 Brown light clay A1; mottled brown and grey or red heavy clay strongly structured B horizon.
Bu	BULGURU	Brown, Kandisol	? Gleyed Podsolc soil	Ud6.41 Dark grey brown clay loam to light clay A1; mottled grey and yellowish red light medium clay structured B horizon.
Hw	HEWITT	Oxyaquic, Hydrosol	Hemic Gley	Dy4.51 Black sapric loam A horizon; light grey medium to heavy clay massive B horizon.
In	INLET	Redoxic, Hydrosol	No provision	Ud6.41 Dark greyish brown light clay A1 horizon; mottled light grey and brownish yellow heavy clay area; moderately structured B horizon.
Hl	HOLLOWAY	Oxyaquic, Hydrosol	? Solonch	Dy2p Dark greyish brown sandy clay loam A ₁ ; greyish brown sandy medium clay B horizon; may be mottled with light grey and brown.
SOILS OF THE SWAMPS AND TIDAL ZONE				
Ba	BABINDA	Fibric, Organosol	Acid Peat	O Black sapric peat to 40-50 cm over fibric peat; may be reworked; subsaline; laterite at depth.
Sa	SUMALEA	Hemic, Organosol	Acid Peat	O Black sapric peat to 20-40 cm over hemic peat which is usually mainly fibric; may be some recent deposition on the surface.
Nd	NND	Fibric, Organosol	Acid Peat	O Fibric peats in permanent water.
Bu	BULGURU	Redoxic, Hydrosol	Hemic Gley	O Fibric peat 20-50 cm thick over mottled gleyed sediments capping from heavy clay to coarse sand.
Mm	MANGROVES	Intersol, Hydrosol	Solonchak	Ud6 Saline soils of the intertidal zone.
ML	MADE LAND			

Multiple symbols occur on some map areas. The symbol placement is not arbitrary. It indicates the dominant or codominant soils occurring in particular parts of a unique map area.