WALKAMIN RESEARCH STATION
SOILS

by D.T. Malcolm and I.J. Heiner

REFERENCE

MAPPING UNIT		MAJOR ATTRIBUTES OF DOMINANT SOIL	AUSTRALIAN CLASSIFICATION	GREAT SOIL GROUP	PPF
SOILS DERIVED FROM GRANITIC AND RHYOLITIC ROCKS					
Hillslopes and crests of gently undulating to undulating rises					
St	Station	0.04 to 0.11m grey apedal sandy clay loam acid A1 horizon with few quartz pebbles over conspicuously bleached (dry) acid A2 horizon to 0.30m over mottled yellow brown pedal sandy medium to sandy medium heavy clay acid to neutral B2 horizon with few rhyolitic pebbles to 1.0m overlying decomposing granite and rhyolite B3/C horizon.	Grey Chromosol	No suitable group affinities with soloth.	Dy 2.41 Dy 3.41
Cr	Carbeen	0.06-0.08 dark weakly pedal sandy clay loam acid A1 horizon over pale (dry) A2 horizon with few quartz pebbles over mottled yellow-brown pedal sandy light to sandy light medium clay acid B2 horizons with few quartz pebbles to 0.65-0.70m over mottled yellow-brown pedal sandy medium heavy clay B3 horizon with few quartz pebbles to 1.0m over C horizon of decompasing granite.	Yellow Chromosol	No suitable group affinities with yellow podzlic soil.	Dy 3.41
Hillslopes and footslopes of gently undulating rises					
Lt	Lotus	0.20 to 0.31m grey apedal loamy coarse sand acid A1 horizon over conspicuously bleached apedal A2 horizon to 0.55-0.97m over yellow brown apedal coarse sandy loam acid B horizon with few quartz pebbles to 1.0m.	Arenic Rudosol	No suitable group affinities with earthy sand	Uc 2.21
SOILS DERIVED FROM METAMORPHIC OR GRANITIC ROCKS					
Slopes of the gently undulating relict fans					
Gr	Glenray	0.04-0.25m dark apedal sandy clay loam acid A1 horizon over pale (dry) A2 horizon to 0.12-0.30m over mottled yellow apedal clay loam sandy to light medium clay acid B horizon with common quartz pebbles and ferromanganiferous nodules to 0.90-1.5m over mottled grey weakly pedal coarse sandy medium heavy clay acid B3 horizon with few ferromanganiferous nodules.	Yellow Kandosol	Yellow earth	Gn 2.21 Um 4.23
SOILS DERIVED FROM BASALTIC ROCKS					
Slopes of gently undulating to level lava plains					
Mp	Mapee	0.06 to 0.32m dark pedal light clay neutral A horizon with few ferromanganiferous nodules over red pedal light to light medium clay neutral B horizons with few ferromanganiferous nodules.	Red Ferrosol	Euchrozem	Uf6.31
MpR	Mapee Rocky Phase	0.09 to 0.22m dark pedal light clay neutral A horizon with common basaltic stones and manganiferous nodules over red weakly pedal light to light medium clay neutral B1 horizon to 0.48-0.60m over red pedal light to medium clay neutral B2 horizon with few basaltic pebbles and few manganiferous nodules to 1.5m over mottled red pedal light clay B3 horizon with few basaltic pebbles and few ferromanganiferous nodules.	Red Ferrosol	Euchrozem	Uf6.31
Footslopes of the level lava plains					
Wk	Walkamin	0.06-0.33m dark pedal light to light medium clay acid A horizon with few ferromanganiferous nodules over mottled yellow-brown pedal light to medium clay neutral B horizon with common ferro-manganiferous nodules to 1.0-1.5m over mottled grey-brown pedal light to medium heavy clay neutral B3 horizon with few decomposing basalt pebbles and common ferromanganiferous nodules over	Brown Dermosol	Xanthozem	Uf6.4 Uf6.31 Uf6.33
WKS	Walkamin Shallow Phase	0.05-0.19 dark pedal light to light medium clay acid to neutral A horizon with few common ferromanganiferous nodules over brown weakly pedal light to light medium clay acid to neutral B1 horizon with common ferromanganiferous nodules to 0.15-0.34m over mottled brown or yellow-brown pedal light to medium clay acid to neutral B horizons with few basaltic pebbles and common ferro-manganiferous nodules to 0.5-1.02m over mottled grey or yellow brown pedal light to medium heavy clay alkaline B3/D horizons with few medium basaltic stones.	Brown Dermosol	Xanthozem	Uf6.4 Uf6.31 Uf6.33 Uf6.41
Sd	Saider	0.05-0.15m dark or pedal light to light medium clay to neutral A horizon with few basalt pebbles and few ferromanganiferous nodules over faintly mottled pedal light to medium heavy clay, neutral with common basaltic pebbles and ferromanganiferous nodules to 0.12-0.52m over mottled brown pedal light to medium heavy clay, neutral with common basaltic pebbles and manganiferous nodules over C horizons of decomposing basalt.	Brown Dermosol	No suitable group affinities with prairie soil	Uf6.31
Soils of the fans of gently undulating to undulating lava plains					
Mg	Morgan	0.04 to 0.18 dark pedal light to medium clay, acid A1 horizon with common basaltic pebbles over mottled brown pedal light medium to medium heavy clay, alkaline B horizon to 0.12-1.0m basaltic pebbles and few manganiferous or calcium carbonate nodules over mottled brown pedal light medium to medium heavy clay, alkaline B3 horizon to 0.37-1.3m with few basaltic pebbles and few manganiferous nodules over C horizon of decomposing basalt.	Brown Dermosol	No suitable group affinities with brown clay	Uf6.31 Uf6.33 Ug5.32
SOILS DERIVED FROM ALLUVIUM					
Soils of the level to gently undulating alluvial plains					
Md	Maud	0.02-0.05m dark pedal light medium clay, acid A horizon over grey pedal medium heavy clay, alkaline B horizon to 0.61-1.19m over mottled grey pedal medium to medium heavy clay, alkaline B3 horizon with few basalt pebbles.	Grey Vertosol	Grey clay	Ug5.22
MISCELLANEOUS UNITS					
ML	Made Land	Land associated with buildings, fish ponds, quarries etc.			
SC	Stream channel				
S		Detailed Sample site for chemical analysis.			
P	**Pit Sample site**				

1. The descriptions refer to the expected range of attributes within the modal concept of the measured soil and not the full range of properties observed during the survey

2. New Australian classification after Isbell,R.F.(1993), A Classification System for Australian soils, Third Approximation. This classification is based on the most common attributes only.

3. Great soil group after Stace et al (1968), A Handbook of Australian Soils.

4. Principle Profile Form (PPF) after Northcote, K.H. (1979), A Factual Key for the Recognition of Australian Soils.

0 100 200 300 400 500

SCALE (m) 1 : 5000

AUSTRALIAN MAP GRID, ZONE 55

TRANSVERSE MERCATOR PROJECTION

INTENSITY STATEMENT
This is a high intensity soil survey.
It is based on ground oyservations of
the order of an observation to
an area of 1.6 hectares.

N

DPI QUEENSLAND
DEPARTMENT OF PRIMARY INDUSTRIES
NORTH REGION