Project Name: Cooloola
Project Code: Cooloola **Site ID:** B870 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	C.H. Thompson	**Locality:**	Site at Cooroy B216 hole. Sample from N bank of old roadside burrow - pit cut back 1.5m.
Date Desc.:	13/10/75	**Elevation:**	8 metres
Map Ref.:	Sheet No. : 143302 1:50000	**Rainfall:**	No Data
Northing/Long.:	152.9635924	**Runoff:**	No Data
Easting/Lat.:	-26.31361429	**Drainage:**	Poorly drained

Geology

ExposureType:	No Data	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	No Data

Land Form

Rel/Slope Class:	No Data	**Pattern Type:**	Alluvial fan
Morph. Type:	No Data	**Relief:**	No Data
Elem. Type:	Fan	**Slope Category:**	No Data
Slope:	%	**Aspect:**	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Podosol
ASC Confidence:
Confidence level not specified

Mapping Unit: N/A
Principal Profile Form: Uc3.31
Great Soil Group: Podzol

Site Disturbance:

Vegetation: Low Strata - , 6.01-12m, Closed or dense. *Species includes - Acacia excelsa, Tristania conferta, Acacia fimbriata,

Acacia aulacocarpa, Melaleuca quinquenervia Mid Strata - , 12.01-20m, . *Species includes - Syncarpia species, Tristania sauveolens, Angophora intermedia

Tall Strata - , 20.01-35m, . *Species includes - Eucalyptus acmenoides, Eucalyptus grandis

Surface Coarse Fragments:

Profile Morphology

A00	0 - 0.02 m	;
A11	0.02 - 0.07 m	Very dark grey (10YR3/1-Moist); ; Loamy sand; Single grain grade of structure, 2-5 mm, Subangular blocky; Loose consistence; Field pH 5.5 (Raupach);
A11	0.02 - 0.07 m	Very dark grey (10YR3/1-Moist); ; Loamy sand; Single grain grade of structure, 2-5 mm, Subangular blocky; Firm consistence; Field pH 5.5 (Raupach);
A12	0.07 - 0.12 m	Very dark grey (10YR3/1-Moist); ; Sandy loam; 5-10 mm, Subangular blocky; Strong consistence; Many
A13	0.12 - 0.22 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam; 5-10 mm, Subangular blocky; Strong consistence; Field pH 5.5 (Raupach); Many
A14	0.22 - 0.32 m	Very dark greyish brown (10YR3/2-Moist); , 10YR52; , 10YR62; Sandy loam; 5-10 mm, Subangular blocky; Very strong consistence; ManySharp change to -
A2	0.32 - 0.37 m	Very dark greyish brown (10YR3/2-Moist); , 10YR52; , 10YR62; Irregular change to -
B1	0.37 - 0.42 m	Light olive brown (2.5Y5/4-Moist); , 10YR44; , 10YR22; Clay loam, sandy; Single grain grade of structure; Massive grade of structure; Very strong consistence; Field pH 5.5 (Raupach);
B21	0.42 - 0.52 m	Strong brown (7.5YR5/6-Moist); , 5YR44; , 10YR65; Clay loam, sandy; Single grain grade of structure; Massive grade of structure; Rigid consistence; Field pH 5.8 (Raupach);
B22	0.52 - 0.62 m	Yellowish brown (10YR5/4-Moist); , 7.5YR56; , 5YR44; Clay loam, sandy; Single grain grade of structure; Massive grade of structure; Very firm consistence;
B23	0.62 - 0.72 m	Dark reddish brown (5YR2/2-Moist); Dark reddish brown (5YR3/2-Moist); , 10YR54; , 7.5YR56; Sand; Single grain grade of structure; Massive grade of structure; Very firm consistence;
A2	0.72 - 0.82 m	Brown (7.5YR5/2-Moist); Pinkish grey (7.5YR6/2-Moist); ; Sand; Single grain grade of structure; Loose consistence;

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B24	0.82 - 0.92 m	Dark brown (7.5YR3/3-Moist); , 10YR64; Sand; Single grain grade of structure; Massive grade of structure; Very strong consistence;
B24	0.92 - 1.22 m	Dark brown (7.5YR3/3-Moist); , 10YR64; Very firm consistence;
B3	1.22 - 1.42 m	Dark brown (7.5YR3/3-Moist); , 10YR54; Clay loam, sandy; Single grain grade of structure; Massive grade of structure; Very firm consistence; Clear, Wavy change to -
B3	1.42 - 1.52 m	Reddish yellow (7.5YR6/6-Moist); , 2.5YR64; , 2.5YR46; Sandy clay loam; Single grain grade of structure; Massive grade of structure; Very firm consistence;

Morphological Notes

A00	Leaf litter mainly from acacias.
A11	Diffuse and discrete OM. A mixture of loose sandgrains and 5mm SBL peds.
A11	Diffuse and discrete OM. A mixture of loose sandgrains and 5mm SBL peds.
A12	Many roots and worm channels. Medium grain sands with Q grits.
A13	Many roots and worm channels.
A14	Many roots and worm channels.
A2	Sharp irregular boundary at 34/42.
B1	Cemented with Fe and translocated humate.
B21	Fe B horizon with some DB(10yr3/3) humate.
B22	Large VDB (7.5YR3/3) humate patches.
B23	Maximum hummate B horizon in pit.
A2	A2 pipe in places bleached.
B24	Some VDB (8YR2/2) humate patches.
B3	Clear uneven boundary 130/150.

Observation Notes

Parent material: Sandy fan alluvium from Mesozoic quartzose sandstones to west. Landform: Gently sloping fan remnant forming platform above present stream. Veg: Wet Sclerophyll Forest. Soil prob. varies locally between Uc3.31 and Uc5.32.

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.02										
0.02 - 0.07	4.9H	<0.02B	0.4K	0.4	0.1	<0.1	0.4D		1.4F	
0.07 - 0.12	4.7H	0.02B								
0.12 - 0.22	4.7H	<0.02B								
0.22 - 0.32	4.7H	<0.02B								
0.32 - 0.37	4.8H	<0.02B								
0.37 - 0.42	4.9H	<0.02B	0.1K	<0.1	<0.1	<0.1	1.5D		1.6F	
0.42 - 0.52	4.9H	<0.02B								
0.52 - 0.62	5H	<0.02B								
0.62 - 0.72	5H	<0.02B	0.1K	<0.1	<0.1	<0.1	1.3D		1.4F	
0.72 - 0.82	4.9H	<0.02B								
0.82 - 0.92										
0.92 - 1.22	5.3H	<0.02B								
1.22 - 1.42										
1.42 - 1.52	5.6H	<0.02B								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.02												
0.02 - 0.07		1.29E	6B		0.071B							
0.07 - 0.12		1.61E	8B		0.095B				85I		8	4
0.12 - 0.22		1.33E	6B		0.085B							
0.22 - 0.32		0.97E	7B		0.051B							
0.32 - 0.37		1.18E	6B		0.059B							
0.37 - 0.42		1.96E	4B		0.055B				81I		7	7
0.42 - 0.52		1.34E	4B		0.036B				84I		9	5
0.52 - 0.62		1.34E	7B		0.044B							
0.62 - 0.72		2.05E	4B		0.08B							
0.72 - 0.82		0.16E	2B		0.014B							
0.82 - 0.92												
0.92 - 1.22		0.93E	3B		0.029B							
1.22 - 1.42												
1.42 - 1.52		0.2E	3B		0.013B							

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.02										
0.02 - 0.07										
0.07 - 0.12										
0.12 - 0.22										
0.22 - 0.32										
0.32 - 0.37										
0.37 - 0.42										
0.42 - 0.52										
0.52 - 0.62										
0.62 - 0.72										
0.72 - 0.82										

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0.82 - 0.92
0.92 - 1.22
1.22 - 1.42
1.42 - 1.52

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Laboratory Analyses Completed for this profile

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15J1	Effective CEC
2A1	Air-dry moisture content
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
5_NR	Water soluble Chloride - Cl(%) - Not recordede
6Z	Organic carbon (%) - Not recorded
7_NR	Total nitrogen (%) - Not recorded
8A1	Total organic carbon/total nitrogen ratio
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)
P10_NR_C	Clay (%) - Not recorded
P10_NR_S	Sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded