

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 107 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	30/03/85	Elevation:	No Data
Map Ref.:	Sheet No. : 8434 1:100000	Rainfall:	No Data
Northing/Long.:	6459500 AMG zone: 55	Runoff:	Moderately rapid
Easting/Lat.:	591200 Datum: AGD66	Drainage:	Moderately well drained

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Simple-slope	Relief:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	%	Aspect:	No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	TRANGIE COWAL ALLUVIUM
N/A			

ASC Confidence:

Confidence level not specified

Principal Profile Form: Db4.47

Great Soil Group: N/A

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Tall Strata - Tree, 6.01-12m, . *Species includes - Box (Eucalypt)

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Very weak consistence; Field pH 6.5 (Raupach); Common, fine (1-2mm) roots; Abrupt, Smooth change to -
A2	0.1 - 0.25 m	Greyish brown (10YR5/2-Moist); ; Loam; Massive grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Weak consistence; Field pH 6.5 (Raupach); Common, fine (1-2mm) roots; Abrupt, Smooth change to -
B21	0.25 - 0.8 m	Dark yellowish brown (10YR3/4-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Very firm consistence; Field pH 7 (Raupach); Few, fine (1-2mm) roots; Diffuse, Smooth change to -
B22	0.8 - 1.35 m	Yellowish brown (10YR5/4-Moist); , 20-50% , 15-30mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Field pH 7.5 (Raupach); Few, fine (1-2mm) roots;

Morphological Notes

B22 The bleached A2 abundant tree roots in the A and texture contrast are significant along with the leaf litter layer.

Observation Notes

Byron Soil Profile Class

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0.1 - 0.15	6A	0.09A	1.5E	0.8	0.5	0			2.8D	
0.3 - 0.35	6.6A	0.075A								
0.7 - 0.75	7.3A	0.037A	8.6E	3.2	0.9	0.1			12.8D	
1.3 - 1.35	7.4A	0.024A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0.1 - 0.15							1.54		3.9A	51.1	28.2	16.8
0.3 - 0.35							1.51					
0.7 - 0.75							1.57		1.8A	36	24.1	38.1
1.3 - 1.35							1.36					

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	
				g/g	m3/m3				mm/h
0.1 - 0.15	0.024A			0.17G				0.06D	
0.3 - 0.35	0.052A			0.23G				0.17D	
0.7 - 0.75	0.055A			0.21G				0.15D	
1.3 - 1.35	0.02A			0.27G				0.11D	

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Laboratory Analyses Completed for this profile

15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15J_BASES	Sum of Bases
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm ³
P3B1GV_15	15 BAR Moisture g/g - Gravimetric of ground sample (<2mm) using pressure plate
P3B4GV_01	0.1 BAR Moisture g/g - Gravimetric of soil clods (Soil Survey Staff,1967)
P5_COLE	Coefficient of Linear Extensibility (Grossman et al. 1968)