Project Name: **Soils of the Lower Macquarie Valley, New South Wales**
Project Code: **Macquarie** **Site ID:** **206** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By:	N.J. McKenzie	**Locality:**	
Date Desc.:	13/06/85	**Elevation:**	No Data
Map Ref.:	1:10000	**Rainfall:**	No Data
Northing/Long.:	6459767 AMG zone: 55	**Runoff:**	Slow
Easting/Lat.:	596967 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:	Lower-slope	**Relief:**	No Data
Elem. Type:	No Data	**Slope Category:**	No Data
Slope:	%	**Aspect:**	No Data

Surface Soil Condition (dry): Soft

Erosion: Stable, Minor or present (wind);

Soil Classification

Australian Soil Classification:
N/A

Mapping Unit: GIN GIN AEOLIAN DEPOSITS

Principal Profile Form: Gn4.13

ASC Confidence:
Confidence level not specified

Great Soil Group: N/A

Site Disturbance: Cultivation. Rainfed

Vegetation:
Tall Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.3 m	Dark reddish brown (5YR3/3-Moist); ; Light clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Earthy fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Many (>5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Field pH 7 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Clear, Smooth change to -
A12	0.3 - 0.4 m	Yellowish red (5YR3/6-Moist); ; Sandy clay; Strong grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Firm consistence; Field pH 7 (Raupach); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B21	0.4 - 1.1 m	Yellowish red (5YR3/6-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Firm consistence; Field pH 7.5 (Raupach); Few, very fine (0-1mm) roots;
B22	1.1 - 1.5 m	Yellowish red (5YR4/6-Moist); ; Light clay; Field pH 8.5 (Raupach);

Morphological Notes

A11 Very uniform looking profile

Observation Notes

Mitchell Soil Profile Class, Moderately Drained Phase, Wheat - fallow. This side of valley appears to have the deep soil.

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				%
0.1 - 0.15	6.2A	0.038A	4.4E	0.2	0.6	0			5.2D	
0.3 - 0.35	6.7A	0.025A								
0.7 - 0.75	8.5A	0.039A	6.5E	6.8	0.3	1.7			15.3D	
1.3 - 1.35	9.2A	0.24A								

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			%		
0.1 - 0.15							1.62		20.2A	38.9	14	27
0.3 - 0.35							1.59					
0.7 - 0.75							1.52		14.1A	26.4	10.4	49.2
1.3 - 1.35							1.52					

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
0.1 - 0.15	0.024A			0.15G				0.09D		
0.3 - 0.35	0.043A			0.17G				0.09D		
0.7 - 0.75	0.042A			0.2G				0.17D		
1.3 - 1.35	0.053A			0.21G				0.2D		

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Laboratory Analyses Completed for this profile

15C1_CA	Exchangeable bases (Ca2+,Mg2+,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/cm3
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)