Project Name: **Soils of the Lower Macquarie Valley, New South Wales**
Project Code: **Macquarie** **Site ID:** **303** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: N.J. McKenzie
Date Desc.: 27/07/85
Map Ref.: Sheet No. : 8434 1:10000
Northing/Long.: 6462480 AMG zone: 55
Easting/Lat.: 587240 Datum: AGD66
Locality:
Elevation: No Data
Rainfall: No Data
Runoff: Slow
Drainage: Imperfectly drained

Geology

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

Land Form

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

Surface Soil Condition (dry): Hardsetting, Surface crust

Erosion: Partial, Moderate (wind);

Soil Classification

Australian Soil Classification:
N/A

ASC Confidence:
Confidence level not specified

Mapping Unit: OLD ALLUVIUM MEANDER PLAIN
Principal Profile Form: Gn4.2
Great Soil Group: N/A

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Tall Strata - Tussock grass, , . *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.22 m	Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam; Moderate grade of structure, 50-100 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 0.01m2) macropores, Moist; Very weak consistence; Field pH 7.5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Clear, Smooth change to -
A1	0 - 0.22 m	Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam; Moderate grade of structure, 50-100 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 0.01m2) macropores, Moist; Weak consistence; Field pH 7.5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Clear, Smooth change to -
A21	0.22 - 0.58 m	Yellowish red (5YR4/7-Moist); ; Sandy clay loam; Weak 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, Few (<1 per 0.01m2) macropores, Moist; Weak consistence; Field pH 7 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Clear, Smooth change to -
A22	0.58 - 0.69 m	Light reddish brown (5YR6/4-Moist); Pink (5YR8/3-Dry); , 5YR56, 10-20% , 15-30mm, Faint; Sandy clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Firm consistence; Field pH 7.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Smooth change to -
B2	0.69 - 1.15 m	Reddish brown (2.5YR4/4-Moist); , 5YR56, 10-20% , 15-30mm, Faint; Sandy clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Firm consistence; Many cutans, >50% of ped faces or walls coated; Field pH 8 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots;

Morphological Notes

B2 Backhoe could penetrate beyond 110cm. Possibly a former channel. Slopes into scalded depression to the East - surface crust. A22 is discontinuous sporadic to conspicuous in places.

Observation Notes

Mitchell Soil Profile Class, Moderately Drained Phase, Vegetation - lucerne

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 303 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Notes

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 303 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0.1 - 0.15	6.5A	0.038A	4.2E	0.2	0.8	0.2			5.4D	
0.3 - 0.35	6.9A	0.027A								
0.7 - 0.75	7.8A	0.049A	6.3E	2.6	0.5	0.2			9.6D	
1.3 - 1.35	7.9A	0.046A								

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							1.50		26.8A	29.3	24	19.9
0.3 - 0.35							1.60					
0.7 - 0.75							1.78		17A	18.8	27.7	36.5
1.3 - 1.35							1.87					

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	0.027A			0.15G				0.06D	
0.3 - 0.35	0.036A			0.13G				0.05D	
0.7 - 0.75	0.017A			0.13G				0.1D	
1.3 - 1.35	0.016A			0.11G				0.08D	

Project Name: **Soils of the Lower Macquarie Valley, New South Wales**
Project Code: **Macquarie** **Site ID:** **303** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

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)