Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **we016** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: W.T. Ward
Date Desc.: 04/04/88
Map Ref.: Sheet No. : 8737_N 1:50000
Northing/Long.: 6656400 AMG zone: 55
Easting/Lat.: 703350 Datum: AGD66
Locality: stock route, near Warrambool Creek
Elevation: 173 metres
Rainfall: No Data
Runoff: No Data
Drainage: No Data

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: No Data

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: Terrace flat
Slope: 0 %
Pattern Type: No Data
Relief: No Data
Slope Category: Level
Aspect: No Data

Surface Soil Condition (dry): Surface crust

Erosion:

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: N/A
Great Soil Group: Red-brown earth

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Brown (7.5YR4/2-Moist); Brown (7.5YR5/3-Dry); ; Loamy sand; Massive grade of structure; Weak grade of structure, 5-10 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 6 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.15 m	Brown (7.5YR4/2-Moist); ; Sandy loam; Massive grade of structure; Weak grade of structure, 5-10 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 6 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
B21	0.15 - 0.3 m	Dark reddish grey (5YR4/2-Moist); ; Light clay; Weak grade of structure, 100-200 mm, Columnar; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B22	0.3 - 0.55 m	Brown (7.5YR4/4-Moist); ; Light clay; Weak grade of structure, 100-200 mm, Columnar; Strong grade of structure, 10-20 mm, Prismatic; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very strong consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B23	0.55 - 1 m	Brown (7.5YR4/4-Moist); ; Light clay; Weak grade of structure, 100-200 mm, Columnar; Moderate grade of structure, 10-20 mm, Prismatic; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B24	1 - 1.3 m	Brown (7.5YR4/4-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Prismatic; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
C	1.3 - 2.56 m	Brown (7.5YR5/4-Moist); , 10YR64, 10-20% , 15-30mm, Prominent; , 7.5YR62, 0-2% , 5-15mm, Faint; Clayey sand; Massive grade of structure; Massive grade of structure; Smooth-ped fabric; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 7.5 (pH meter);

Morphological Notes

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A11	Bu016 on core is incorrect. This core shows a sandy red duplex profile to 30cm, on clayier calcareous sediments. Resembles Aloomba pit. There is a depositional texture break at 30cm with levee bank sediments on prior clays; this is probably
A12	the same riverine episode - an inherited lithological discontinuity. An 8cm thick band of sand occurs at 130-138cm above massive clayey sands with minor carbonate filaments. This is the top of the parent sediments, which are sandy again, l
B21	ike the topsoil. Q.

Observation Notes

Parent Rock: alluvial sediment, sand, clay second terraced fan, Namoi

Site Notes

Brown sandy surface, adjoining creek - ?red terrace.

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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 - 0.1										
0.1 - 0.15										
0.15 - 0.25										
0.3 - 0.4										
0.7 - 0.8										
1.2 - 1.3										
2.5 - 2.6										

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 - 0.1												
0.1 - 0.15												
0.15 - 0.25												
0.3 - 0.4												
0.7 - 0.8												
1.2 - 1.3												
2.5 - 2.6												

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 - 0.1									
0.1 - 0.15									
0.15 - 0.25									
0.3 - 0.4									
0.7 - 0.8									
1.2 - 1.3									
2.5 - 2.6									

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Laboratory Analyses Completed for this profile