Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed237** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By:	W.T. Ward	**Locality:**	stock route, near Moema North
Date Desc.:	02/04/85	**Elevation:**	270 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	**Rainfall:**	No Data
Northing/Long.:	6672280 AMG zone: 55	**Runoff:**	No Data
Easting/Lat.:	777570 Datum: AGD66	**Drainage:**	No Data

Geology

ExposureType:	Undisturbed soil core	**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:	No Data	**Relief:**	No Data
Elem. Type:	Fan	**Slope Category:**	Very gently sloped
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry): Self-mulching, Trampled

Erosion:

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified

Mapping Unit: N/A
Principal Profile Form: Ug
Great Soil Group: Brown clay

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Dark grey (10YR4/1-Dry); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Field pH 8 (pH meter); Common, fine (1-2mm) roots;
A12	0.1 - 0.25 m	Dark brown (7.5YR3/2-Moist); Very dark brown (10YR2/2-Dry); ; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7.8 (pH meter); Common, very fine (0-1mm) roots;
A13	0.25 - 0.45 m	Dark brown (7.5YR3/2-Moist); , 10YR73, 0-2% , 0-5mm, Faint; Medium heavy clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B21	0.45 - 0.75 m	Reddish brown (5YR4/4-Moist); , 7.5YR84, 0-2% , 0-5mm, Faint; , 10YR83, 0-2% , 0-5mm, Faint; Medium heavy clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.7 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to
B22	0.75 - 1.9 m	Dark reddish brown (5YR3/3-Moist); , 5YR22, 2-10% , 0-5mm, Faint; , 5YR58, 0-2% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Lenticular; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Argillaceous, Medium (2 -6 mm), Tubules; Field pH 8.2 (pH meter); Few, very fine (0-1mm) roots;
B23	1.9 - 2.75 m	Dark reddish brown (5YR3/3-Moist); , 5YR44, 0-2% , 0-5mm, Distinct; , 10YR72, 0-2% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Lenticular; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Argillaceous, Fine (0 - 2 mm), Tubules; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter);

Morphological Notes

Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed237** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Parent Rock: , , second terraced fan

Site Notes

Repeated site 049.

Observation Notes

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed237 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

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 - 0.1	8.33A	0.154A	30.09B	10.47	1.5	2.58				
0.1 - 0.2	8.76A	0.185A	29.97B	11.84	0.79	5.08				
0.3 - 0.4	9.13A	0.444A	24.18B	13.45	0.55	11.01				
0.7 - 0.8	8.42A	1.799A	22.44B	15.91	0.8	17.47				
1.2 - 1.3	8.84A	1.298A	19.32B	14.79	0.9	16.89				
2.5 - 2.6	8.86A	1.28A	18.69B	14.03	0.82	17.28				

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 - 0.1	<0.1B	1.84C	23.3J								18.6	52.6
0.1 - 0.2	<0.1B	1.37C	6.9J								19.8	53.8
0.3 - 0.4	2B	1.06C	4.2J								19.5	55.3
0.7 - 0.8	2.3B	0.47C	12.2J								20.9	61.4
1.2 - 1.3	2.1B	0.16C	15J								19.6	59.3
2.5 - 2.6	1.8B	0.14C	13.6J								19.8	58.8

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 - 0.1									
0.1 - 0.2									
0.3 - 0.4									
0.7 - 0.8									
1.2 - 1.3									
2.5 - 2.6									

Project Name: **Soil Studies in the Lower Namoi Valley**
Project Code: **EDGEROI** **Site ID:** **ed237** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
19B1	Carbonates - manometric
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6B3	Total organic carbon - high frequency induction furnace, infrared
7B1	Water soluble nitrate - automated colour
9B1	Bicarbonate-extractable phosphorus - manual colour
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method