

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed020 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.E. Heape	Locality:	Twynam Pastoral Co., Boolcarrol
Date Desc.:	17/02/86	Elevation:	189 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6675400 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	745900 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:	Terrace plain	Slope Category:	Very gently sloped
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Surface crust, Poached

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug5.25
		Great Soil Group:	Grey 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 grey (10YR3/1-Moist); Grey (10YR5/1-Dry); , 10YR71, 0-2% , 0-5mm, Distinct; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.25 m	Dark grey (10YR4/1-Moist); ; Medium clay; Moderate grade of structure, 50-100 mm, Columnar; Moderate grade of structure, 50-100 mm, Angular blocky; Earthy fabric; Coarse, (10 - 20) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.55 m	Dark grey (10YR4/1-Moist); ; Medium clay; Moderate grade of structure, 50-100 mm, Columnar; Moderate grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Coarse, (10 - 20) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A14	0.55 - 1.05 m	Dark grey (10YR4/1-Moist); ; Medium clay; Weak grade of structure, 50-100 mm, Columnar; Moderate grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Smooth-ped fabric; Coarse, (10 - 20) mm crack; Moderately moist; Strong consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B21	1.05 - 1.5 m	Dark grey (10YR4/1-Moist); , 10YR43, 20-50% , 30-mm, Prominent; , 10YR83, 0-2% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 8 (pH meter);
B22	1.5 - 2.15 m	Brown (10YR4/3-Moist); , 10YR41, 0-2% , 5-15mm, Distinct; , 10YR84, 0-2% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 8 (pH meter);
B23	2.15 - 3.29 m	Greyish brown (10YR5/2-Moist); , 10YR22, 0-2% , 0-5mm, Faint; , 10YR58, 2-10% , 5-15mm, Distinct; Light medium clay; Moderate grade of structure, 10-20 mm, Lenticular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8 (pH meter); Diffuse, Smooth change to -

Morphological Notes

A11 Large crack prevents physical measurements on depth 030-040. Passes at 260 to mostly 10YR5/2 clay with minor lime B2 = B2d.

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed020 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Observation Notes

Parent Rock: alluvial sediment, clay, floodplain

Site Notes

Perfect spot for further crack investigation/observation, especially near cattle tracks. The creek bed is only 40m away. Surface poached with cattle trampling, prints 8 cm deep.

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	7.51A	0.118A	24.62B	16.08	2.35	1.57			
0 - 0.1	7.35A	0.143A	23.3B	17.79	1.82	2.32			
0.1 - 0.2	8.4A	0.102A	24.88B	18.19	1.48	3.51			
0.3 - 0.4	8.95A	0.155A	25.93B	18.28	1.4	6.31			
0.7 - 0.8	8.91A	0.291A	24.93B	18.28	1.6	8.73			
1.2 - 1.3	8.87A	0.362A	21.99B	18.74	1.48	9.12			
1.7 - 1.8	9.11A	0.537A	20.73B	19.01	1.61	9.75			
2.5 - 2.6	8.96A	0.589A	18.87B	17.76	1.38	9.77			

[illegible][illegible]

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed020 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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