

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed166 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.M. Roberts	Locality:	stock route, at Blue Hills
Date Desc.:	07/03/85	Elevation:	215 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6656000 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	762100 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:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug6.2
		Great Soil Group:	Grey clay

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Very dark greyish brown (10YR3/2-Dry); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 8.2 (pH meter); Common, very fine (0-1mm) roots;
A12	0.1 - 0.2 m	Dark brown (10YR3/3-Moist); Very dark greyish brown (10YR3/2-Dry); ; Medium clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8.4 (pH meter); Common, fine (1-2mm) roots; Clear, Smooth change to -
A13	0.2 - 0.5 m	Dark grey (10YR4/1-Moist); Dark grey (10YR4/1-Dry); ; Medium clay; Weak grade of structure, 50-100 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 0-2%, fine gravelly, 2-6mm, subangular tabular, Quartz, coarse fragments; Field pH 8.6 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A14	0.5 - 1.2 m	Dark grey (10YR4/1-Moist); , 10YR73, 2-10% , 0-5mm, Distinct; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Diffuse, Smooth change to -
B21k	1.2 - 1.5 m	Brown (7.5YR4/4-Moist); , 10YR62, 2-10% , 5-15mm, Prominent; Medium heavy clay; Weak grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 0.01m ²) Medium (2-5mm) macropores, Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.2 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B22	1.5 - 2.5 m	Brown (10YR5/3-Moist); , 10YR21, 20-50% , 0-5mm, Faint; , 10YR72, 0-2% , 0-5mm, Prominent; Medium heavy clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.4 (pH meter); Abrupt, Smooth change to -
B23	2.5 - 2.8 m	Brown (7.5YR4/4-Moist); , 10YR41, 20-50% , 15-30mm, Distinct; , 10YR62, 2-10% , 5-15mm, Prominent; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.2 (pH meter);

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Morphological Notes

A11 The 10YR4/1 colour of 166.07 grades to (gleyed) 2.5YR5/1 with depth and carbonate size increases. Infilled worm channels below 280. Sm to 20cm, cracking 50cm. Epipedon 120cm, strat.150. B to 250 then Cg.

Observation Notes

Parent Rock: , , parna on third fan

Site Notes

Observation ID: 1

Project Code: EDCERO1 Site ID: 3d
Agency Name: CSIRO Division of Soils (QLD)

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Ca	Exchangeable Mg	Cations K	Exchangeable Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.02	6.81A	0.167A	14.15B	14.48	2.91	0.31				
0 - 0.1	7.37A	0.038A	20.18B	13.57	2.18	0.38				
0.1 - 0.2	7.46A	0.12A	21.53B	16.11	0.83	0.95				
0.3 - 0.4	8.4A	0.149A	16.12B	18.25	0.71	3.57				
0.7 - 0.8	9.04A	0.233A	9.809999B	22.01	0.98	9.17				
1.2 - 1.3	9.23A	0.499A	8.309999B	19.53	1.17	8.940001				
1.9 - 2	9.19A	0.643A	7.87B	20.59	1.12	9.190001				
2.5 - 2.6	9.1A	0.67A	7.74B	21.16	0.989999	8.68				

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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