

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed244 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	W.T. Ward	Locality:	stock route, at Alooomba
Date Desc.:	06/08/87	Elevation:	203 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6652300 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	758800 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 flat	Slope Category:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Gn3.23
		Great Soil Group:	Red-brown earth

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.08 m	Brown (7.5YR4/4-Moist); Brown (7.5YR5/4-Dry); ; Silty loam; Moderate grade of structure, 10-20 mm, Subangular blocky; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A12	0.08 - 0.25 m	Dark reddish brown (5YR3/2-Moist); ; Silty clay loam; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.55 m	Dark reddish brown (5YR3/2-Moist); ; Silty clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Weak grade of structure, 5-10 mm, Cast; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; Firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B21	0.55 - 1 m	Dark reddish brown (5YR3/4-Moist); ; Light clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Medium (2 - 6 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots;
B22	1 - 1.5 m	Strong brown (7.5YR5/6-Moist); , 5YR44, 2-10% , 5-15mm, Distinct; Silty loam; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 5-10 mm, Cast; Rough-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 0.01m ²) Medium (2-5mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
C	1.5 - 3.29 m	Strong brown (7.5YR5/6-Moist); , 5YR44, 0-2% , 0-5mm, Faint; Fine sandy clay loam; Massive grade of structure; Moderate grade of structure, <2 mm, Cast; Smooth-ped fabric; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8.5 (pH meter);

Morphological Notes

A11 Alooomba pit. rbe doubtful. A surface drift of sand over original low terrace soil. Fitz profile. Prominent casts in B2 and C. A sandy facies on the low terrace. Pasture diffuse soft carbonate stains/efflorescences in C.

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Site Notes

Sampled during Fitzpatrick visit at Aloomba pit.

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol (+)/kg			
0 - 0.08	6.16A	0.085A	5.32B	3.44	0.74	0.4			
0.1 - 0.2	7.23A	0.054A	10.02B	5.93	0.4	1.21			
0.3 - 0.4	8.5A	9.100001E-02A	19.86B	11.18	0.48	3.14			
0.7 - 0.8	8.93A	0.291A	18.03B	12.1	0.45	3.94			
1.2 - 1.3	9.05A	0.19A	14.9B	9.62	0.34	3.44			
2.5 - 2.6	9.13A	0.122A	6.05B	6.54	0.24	6.54			

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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