

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed071 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	D. McGarry	Locality:	Peter Redfern, Warrawee
Date Desc.:	15/01/87	Elevation:	191 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6668300 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	741700 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:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Self-mulching, Recently cultivated

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: Cultivation. Irrigated, past or present, Cultivation. Rainfed,

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Very dark greyish brown (10YR3/2-Dry); ; Medium clay; Strong grade of structure, <2 mm, Granular; Moderate grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8.2 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A12p	0.1 - 0.35 m	Very dark greyish brown (10YR3/2-Moist); , 10YR82, 0-2% , 0-5mm, Faint; Medium clay; Moderate grade of structure, 20-50 mm, Platy; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Rough-ped 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, Fine (0 - 2 mm), Nodules; Field pH 8.2 (pH meter); Few, very fine (0-1mm) roots; Sharp, Smooth change to -
A13	0.35 - 0.55 m	Dark greyish brown (10YR4/2-Moist); , 10YR82, 0-2% , 0-5mm, Faint; Medium clay; 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 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
A14	0.55 - 1.2 m	Dark greyish brown (10YR4/2-Moist); , 10YR82, 0-2% , 0-5mm, Faint; Medium heavy clay; 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 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B21	1.2 - 1.65 m	Dark brown (10YR3/3-Moist); , 10YR31, 2-10% , 5-15mm, Distinct; , 10YR82, 0-2% , 0-5mm, Faint; Medium clay; 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 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9.2 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B22	1.65 - 2.76 m	Brown (7.5YR4/4-Moist); , N20, 2-10% , 0-5mm, Prominent; , 10YR82, 0-2% , 0-5mm, Faint; Light medium clay; 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; Few (2 - 10 %), Manganiferous, Fine (0 - 2 mm), Veins; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 9.2 (pH meter);

Morphological Notes

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A11p From 85cm there are numerous cracks and crack faces infilled with yellow-orange

Observation Notes

Parent Rock: alluvial sediment, clay, parna on third fan, Namoi

Site Notes

No cracks visible. Few fine quartz gravels on surface. Middle terrace. Middle terrace boundary is ca 200m S of Togo entrance gate.

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Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol (+)/kg			
0 - 0.02	8.44A	0.137A	25.37B	8.559999	1.61	0.77			
0 - 0.1	8.49A	0.196A	24.69B	10.15	1.49	0.93			
0.1 - 0.2	8.92A	0.206A	24.43B	11.39	0.95	1.53			
0.35 - 0.4	9.34A	0.256A	22.47B	14.63	0.68	4.19			
0.7 - 0.8	9.48A	0.413A	16.83B	15.77	0.73	8.63			
1.2 - 1.3	9.48A	0.502A	11.64B	14.56	0.91	8.42			
2.5 - 2.6	9.54A	0.442A	11.09B	13.16	0.72	7.21			

[illegible]

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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