

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed227 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.M. Roberts	Locality:	K.W. Eather, Kurrawombi
Date Desc.:	23/07/85	Elevation:	213 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6675300 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	760000 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:	No Data	Slope Category:	Gently inclined
Slope:	2 %	Aspect:	No Data

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug5.15
		Great Soil Group:	Brown clay

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1p	0 - 0.06 m	Very dark greyish brown (10YR3/2-Moist); Brown (10YR5/3-Dry); ; Silty clay; Weak grade of structure, 2-5 mm, Granular; Single grain grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8.6 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
2A1	0.06 - 0.25 m	Dark greyish brown (10YR4/2-Moist); , 10YR82, 0-2% , 5-15mm, Distinct; Light clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Weak grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots;
2B2k	0.25 - 0.55 m	Dark brown (7.5YR3/2-Moist); , 7.5YR56, 0-2% , 5-15mm, Distinct; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
3B21k	0.55 - 1 m	Dark brown (7.5YR3/2-Moist); , 7.5YR74, 0-2% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 0-2%, coarse gravelly, 20-60mm, rounded tabular, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots;
3B22k	1 - 1.66 m	Dark brown (7.5YR3/2-Moist); , 7.5YR74, 0-2% , 5-15mm, Distinct; , 10YR73, 2-10% , 15-30mm, Prominent; Medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Weak grade of structure, 20-50 mm, Prismatic; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Few (2 - 10 %), Unidentified, Medium (2 -6 mm), Crystals; Field pH 9 (pH meter); Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

Parent Rock: , , floodplain

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Site Notes

3cm suncracked flood deposit on young ?alluvial soil in donga. Groundsurface has many scours produced by flood water. Rig is stopped at 166cm by fine gravel. Groundsurface has vertical pipes leading to tunnels (? cracks) below. Many short s

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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	8.66A	0.143A	31.03B	11.89	1.73	0.86			
0 - 0.06	8.47A	0.193A	25.44B	12.14	0.74	1.28			
0.1 - 0.2	9A	0.163A	23.34B	10.18	0.46	1.94			
0.3 - 0.4	9.27A	0.249A	19.49B	11.47	0.47	5.17			
0.7 - 0.8	9.06A	0.361A	20.19B	11.82	0.62	5.75			
1.2 - 1.3	9.12A	0.302A	22.1B	11.52	0.62	5.69			

[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