

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed165 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	G.M. Roberts	<b>Locality:</b>	W.A.(Bill) Cameron, Locharba
<b>Date Desc.:</b>	26/04/85	<b>Elevation:</b>	207 metres
<b>Map Ref.:</b>	Sheet No. : 8837_N 1:50000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6656100 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	759300 Datum: AGD66	<b>Drainage:</b>	No Data

**Geology**

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Terrace flat	<b>Slope Category:</b>	Very gently sloped
<b>Slope:</b>	1 %	<b>Aspect:</b>	340 degrees

**Surface Soil Condition (dry):** Self-mulching, Trampled

**Erosion:**

**Soil Classification**

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

**Site Disturbance:** Cultivation. Rainfed

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

A11	0 - 0.05 m	Dark greyish brown (10YR4/2-Moist); Pale brown (10YR6/3-Dry); ; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 7 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A12	0.05 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Pale brown (10YR6/3-Dry); ; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A13	0.1 - 0.25 m	Very dark greyish brown (10YR3/2-Moist); , 10YR64, 2-10% , 0-5mm, Distinct; Medium heavy clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A14	0.25 - 0.58 m	Very dark greyish brown (10YR3/2-Moist); , 10YR81, 0-2% , 0-5mm, Prominent; , 10YR83, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B21	0.58 - 1 m	Brown (10YR4/3-Moist); , 10YR81, 0-2% , 5-15mm, Prominent; , 10YR83, 0-2% , 5-15mm, Distinct; Medium heavy clay; Moderate grade of structure, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Gypseous, Medium (2 -6 mm), Crystals; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B22	1 - 1.9 m	Brown (10YR5/3-Moist); , 10YR51, 10-20% , 5-15mm, Distinct; , 7.5YR46, 2-10% , 0-5mm, Distinct; Medium heavy clay; Weak grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 0.01m <sup>2</sup> ) Medium (2-5mm) macropores, Moderately moist; Firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm)

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B23      1.9 - 2.79 m      Brown (10YR5/3-Moist); , 10YR51, 2-10% , 5-15mm, Distinct; , 10YR73, 2-10% , 5-15mm, Prominent; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm<sup>2</sup>) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Veins; Field pH 8.3 (pH meter);

**Morphological Notes**

**Observation Notes**

Parent Rock: , , parna on third fan

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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	7.32A	0.07A	7.46B	6.71	1.17	0.55			
0 - 0.05	7.41A	0.21A	11.35B	7.85	0.88	1.76			
0.05 - 0.1	8.19A	0.152A	13.62B	8.14	0.68	2.73			
0.1 - 0.2	8.66A	0.163A	15.84B	8.45	0.48	3.54			
0.3 - 0.4	8.27A	1.585A	15.47B	9.5	0.46	5.81			
0.7 - 0.8	8.53A	1.595A	15.85B	10.96	0.87	8.91			
1.2 - 1.3	9.26A	0.834A	13.94B	9.15	0.81000	7.96			
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2.5 - 2.6	9.42A	0.761A	11.98B	8.37	0.53	9.14			

[illegible]

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**Laboratory Analyses Completed for this profile**

15A2_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 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