

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed220 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	M. Korevaar	<b>Locality:</b>	Department of Agriculture, Myall Vale Research Station
<b>Date Desc.:</b>	20/03/85	<b>Elevation:</b>	201 metres
<b>Map Ref.:</b>	Sheet No. : 8837_N 1:50000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6656230 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	752070 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>	Level
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

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

#### 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

A11p	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Dark greyish brown (10YR4/2-Dry); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Field pH 8.7 (pH meter);
A12p	0.1 - 0.2 m	Very dark greyish brown (10YR3/2-Moist); , 10YR63, 0-2% , 0-5mm, Faint; Medium heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Clear, Smooth change to -
A13	0.2 - 0.55 m	Dark brown (7.5YR3/2-Moist); , 10YR74, 0-2% , 0-5mm, Distinct; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.3 (pH meter);
A14	0.55 - 1.14 m	Dark brown (7.5YR3/2-Moist); , 10YR63, 0-2% , 0-5mm, Faint; Medium heavy clay; Weak grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.7 (pH meter); Diffuse, Smooth change to -
B21	1.14 - 1.9 m	Brown (7.5YR4/4-Moist); , 7.5YR42, 2-10% , 15-30mm, Distinct; Light medium clay; Weak grade of structure, 50-100 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Few (2 - 10 %), Argillaceous, Coarse (6 - 20 mm), Veins; Field pH 8 (pH meter);
B22	1.9 - 2.68 m	Brown (7.5YR4/4-Moist); , 10YR41, 2-10% , 15-30mm, Distinct; , 10YR71, 0-2% , 5-15mm, Faint; Light medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; Few cutans, <10% of ped faces or walls coated; Few (2 - 10 %), Argillaceous, Coarse (6 - 20 mm), Veins; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter);

#### Morphological Notes

#### Observation Notes

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

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## Site Notes

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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 - 0.02	8.5A	0.173A	26.94B	13.2	1.72	0.83			
0 - 0.1	8.52A	0.165A	26.41B	14.93	1.7	1.09			
0.1 - 0.2	8.56A	0.137A	26.05B	15.43	1.34	1.31			
0.3 - 0.4	8.97A	0.163A	22.51B	18.56	0.88	2.85			
0.7 - 0.8	9.19A	0.287A	15.95B	19.2	0.8	7.12			
1.2 - 1.3	9.37A	0.333A	12.32B	17.18	0.9	7.35			
2.5 - 2.6	8.99A	0.715A	13.84B	20	0.93	10.14			

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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