

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed164 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	G.M. Roberts	<b>Locality:</b>	Auscott Ltd, Auscott
<b>Date Desc.:</b>	30/04/85	<b>Elevation:</b>	204 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>	756600 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>	Ug6.2
		<b>Great Soil Group:</b>	Grey clay

**Site Disturbance:** Cultivation. Irrigated, past or present

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A11p	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Greyish brown (10YR5/2-Dry); , 10YR83, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8 (pH meter);
A12p	0.1 - 0.25 m	Dark greyish brown (10YR4/2-Moist); Greyish brown (10YR5/2-Dry); , 10YR83, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter);
A13p	0.25 - 0.56 m	Dark greyish brown (10YR4/2-Moist); , 10YR54, 0-2% , 0-5mm, Distinct; Medium heavy clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Diffuse, Smooth change to -
B2	0.56 - 1 m	Dark greyish brown (10YR4/2-Moist); , 10YR56, 10-20% , 5-15mm, Prominent; , 10YR83, 0-2% , 0-5mm, Distinct; Medium heavy clay; Weak grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Sandy (grains prominent) fabric; Moderately moist; Weak consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 8.8 (pH meter);
C1	1 - 1.47 m	Yellowish brown (10YR5/6-Moist); , 10YR42, 2-10% , 5-15mm, Distinct; Coarse sandy light clay; Massive grade of structure; Earthy fabric; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Moderately moist; Weak consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Veins; Field pH 8.5 (pH meter); Clear, Smooth change to -
C2	1.47 - 2.69 m	Brown (10YR5/3-Moist); , 10YR56, 20-50% , 30-mm, Prominent; Light clay; Massive grade of structure; Earthy fabric; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 8.5 (pH meter);

#### Morphological Notes

#### Observation Notes

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

#### 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	8.68A	0.137A	19.65B	14.39	1.55	1.11			
0 - 0.1	8.32A	0.134A	20.44B	16.51	1.44	1.42			
0.1 - 0.2	8.51A	0.134A	20.16B	16.34	1.38	1.49			
0.3 - 0.4	8.78A	0.135A	18.13B	17.01	1.05	1.99			
0.7 - 0.8	8.85A	0.156A	12.76B	14.38	0.67	2.6			
1.2 - 1.3	8.92A	0.088A	7.52B	8.33	0.45	1.81			
2.5 - 2.6	9.24A	0.097A	9.86B	6.36	0.41	4.04			

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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