

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed088 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	W.T. Ward	<b>Locality:</b>	J.G.(John) Wilson, Montana
<b>Date Desc.:</b>	25/06/86	<b>Elevation:</b>	465 metres
<b>Map Ref.:</b>	Sheet No. : 8837_N 1:50000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6667100 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	788300 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>	Hillcrest	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	2 %	<b>Aspect:</b>	95 degrees

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

#### 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>	Ug5.13
		<b>Great Soil Group:</b>	No suitable

**Site Disturbance:** Complete clearing. Pasture, native or improved, cultivated at some stage

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A11	0 - 0.1 m	Dark reddish brown (5YR3/2-Moist); Dark reddish brown (5YR3/2-Dry); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, <2 mm, Granular; 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; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.25 m	Dark reddish brown (5YR3/3-Moist); ; Medium heavy 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; Very firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B2	0.25 - 0.45 m	Dark reddish brown (5YR3/4-Moist); , 7.5YR82, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, <2 mm, Cast; 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; 0-2%, medium gravelly, 6-20mm, angular, Basalt, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Clear, Wavy change to -
R	0.45 - 1.8 m	Rock

#### Morphological Notes

A11 Colour of 70-80 is for rock. Lime continues in fissures in rock for full depth of core (180cm). 120-130cm is similar to 70-80, not sampled. A shallow soil on Kaputar Volcanics. Texture of sample 4 estimated from lab and profile.

#### Observation Notes

Parent Rock: residual, basalt, Nandewar Volcanics

#### Site Notes

Chocolate soil. No cracks. Second core wholly in weathered basalt, but not[e] fissures, in situ. The pound is mostly dissected on basalt, with alluvium at main channel.

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed088  
**Agency Name:** CSIRO Division of Soils (QLD)

**Observation ID: 1**

**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.02	7.59A	0.122A	33.72B	15.07	3.39	0.08				
0 - 0.1	7.49A	0.175A	43.65B	21.56	3.17	0.11				
0.1 - 0.2	7.84A	0.099A	43.27B	26.12	1.68	0.23				
0.3 - 0.4	8.08A	0.111A	43.14B	27.52	1.14	0.33				
0.7 - 0.8	8.81A	0.129A	22.53B	27.4	0.4	0.32				

Depth  m	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.02	<0.1B	4.18C									14.2 48
0 - 0.1	<0.1B	3.39C	72.3J								14.6 55.9
0.1 - 0.2	<0.1B	2.16C	34.5J								16.3 48.9
0.3 - 0.4	0.2B	1.56C	20J								15.9 42.6
0.7 - 0.8	36.3B	0.31C	9.8J								14.4 42.5

[illegible]

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI      **Site ID:** ed088      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**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