**Project Name:** Soil Studies in the Lower Namoi Valley

**Project Code: EDGEROI** Site ID: ed224 Observation ID: 1

Agency Name: **CSIRO Division of Soils (QLD)** 

Site Information

E. Veldhuis Desc. By: Locality: Department of Agriculture, Myall Vale Research

Station

Date Desc.: 28/03/85 Elevation: 200 metres Map Ref.: Sheet No.: 8837\_N 1:50000 Rainfall: No Data Northing/Long.: 6655070 AMG zone: 55 Runoff: No Data 749300 Datum: AGD66 Easting/Lat.: Drainage: No Data

Geology

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

**Land Form** 

Rel/Slope Class: No Data Pattern Type: No Data No Data Morph. Type: No Data Relief: Elem. Type: Terrace flat Slope Category: Level Slope: Aspect: No Data

Surface Soil Condition (dry): Self-mulching

**Erosion:** 

**Soil Classification** 

Australian Soil Classification: Mapping Unit: N/A Uq5.15 **Principal Profile Form:** ASC Confidence: **Great Soil Group:** Grey clay

Confidence level not specified

Site Disturbance: Cultivation. Irrigated, past or present

Vegetation:

**Surface Coarse Fragments:** 

**Profile Morphology** 

0 - 0.05 m Very dark greyish brown (10YR3/2-Moist); Very dark greyish brown (10YR3/2-Dry); ; Light A11 clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 6.5 (pH meter); Common, fine (1-2mm) roots; Sharp, Smooth change to -

A12 0.05 - 0.1 m Very dark grevish brown (10YR3/2-Moist): Very dark brown (10YR2/2-Dry): : Light clay: Strong grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few

(<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong

consistence; Field pH 6.5 (pH meter); Common, fine (1-2mm) roots;

A13 0.1 - 0.25 m Very dark greyish brown (10YR3/2-Moist); Very dark brown (10YR2/2-Dry); ; Medium clay;

Moderate grade of structure, 10-20 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; Field pH 7.2 (pH meter); Few, very fine (0-1mm) roots;

A14 0.25 - 0.6 m Very dark greyish brown (10YR3/2-Moist); Very dark brown (10YR2/2-Dry); ; Medium heavy

clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Very strong consistence; Field pH 8.7 (pH meter); Few, very fine

(0-1mm) roots;

Dark brown (10YR3/3-Moist); Brown (10YR4/3-Dry); , 10YR32, 10-20% , 5-15mm, Distinct; R21 0.6 - 0.8 m

Medium heavy clay; Moderate grade of structure, 10-20 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, Strong consistence, Very few (0 - 2 %), Calcareous, Fine (0 - 2

mm), Nodules; Field pH 8.8 (pH meter); Few, very fine (0-1mm) roots;

B22 Brown (7.5YR4/4-Moist); , N30, 2-10% , 5-15mm, Faint; Medium clay; Moderate grade of 0.8 - 1.9 m

structure, 20-50 mm, Angular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence;

Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;

Strong brown (7.5YR4/6-Moist); , 10YR44, 20-50% , 0-5mm, Faint; Coarse sandy light clay; B23k 1.9 - 2.75 m

Weak grade of structure, 50-100 mm, Prismatic; Weak grade of structure, 10-20 mm, Angular blocky; Sandy (grains prominent) fabric; Smooth-ped 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 8.7 (pH meter); Few, very fine (0-1mm)

roots;

Soil Studies in the Lower Namoi Valley

Project Name: Project Code: Agency Name: EDGEROI Site ID: ed2 CSIRO Division of Soils (QLD) Observation ID: 1 ed224

## **Morphological Notes Observation Notes**

Parent Rock: alluvial sediment, mixed texture, with lime, second terraced fan, Namoi

## Site Notes

Crackdepth awaits rationalization.

Soil Studies in the Lower Namoi Valley EDGEROI Site ID: ed224 CSIRO Division of Soils (QLD) Observation ID: 1

Project Name: Project Code: Agency Name:

## **Laboratory Test Results:**

Depth	рН	1:5 EC		changeable	Cations K	Na	Exchangeable	e CEC		ECEC	ESP
m		dS/m	Ca	Mg	ĸ	Na Cmol	Acidity (+)/kg				%
0 - 0.02	5.92A	0.257A	9.559999 B	7	1.72	0.15					
0 - 0.05	6.59A	8.199999I 02A	E-8.32B	6.38	1.09	0.62					
0.05 - 0.1	6.89A	0.063A	11.55B	8.059999	0.45	1.17					
0.1 - 0.2	7.5A	0.066A	14.94B	10.16	0.43	1.87					
0.3 - 0.4	8.76A	0.174A	17.6B	12.37	0.43	4.08					
0.7 - 0.8	9.01A	0.257A	14.37B	11.6	0.53	4.68					
1.2 - 1.3	8.78A	0.105A	15.04B	11.13	0.48	4.99					
2.5 - 2.6	8.82A	0.097A	10.04B	7.47	0.36	4.2					
Depth m	CaCO3	Organic C %	Avail. P mg/kg	Total P J %	Total N %	Tot K %	Density		article CS	Size FS %	Analysis Silt Clay
0 - 0.02	<0.1B	3.05C									19.6 38.9
0 - 0.05	<0.1B		8.9J								8.1 37.7
0.05 - 0.1	<0.1B		4.2J								15.7 44.8
0.1 - 0.2	<0.1B	1.18C	1.5J								14.5 52.4
0.3 - 0.4	0.3B	0.96C	17J								14.8 57
0.7 - 0.8	1.9B	0.41C	18J								22 57.5
1.2 - 1.3	<0.1B	0.25C	14J								18.5 52.9
2.5 - 2.6	<0.1B	0.07C	43.1	l							10.8 41.3
Depth	COLE	Sat. 0.05 Bar 0.1 Bar 0.5 Bar 1 Bar 5 Bar 15 Bar									K unsat
m				g/	g - m3/m	3			mm	ı/h	mm/h

<sup>0 - 0.02</sup> 

<sup>0 - 0.05</sup> 0.05 - 0.1

<sup>0.1 - 0.2</sup> 0.3 - 0.4 0.7 - 0.8 1.2 - 1.3 2.5 - 2.6

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## Laboratory Analyses Completed for this profile

15A2\_CA Exchangeable bases (Ca2+,Mg2+,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 Silt (%) - Coventry and Fett pipette method