

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed059 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: K.J. Smith	Locality: P.A. Eather, Bald Knob
Date Desc.: 31/05/85	Elevation: 210 metres
Map Ref.: Sheet No. : 8837_N 1:50000	Rainfall: No Data
Northing/Long.: 6670400 AMG zone: 55	Runoff: No Data
Easting/Lat.: 756800 Datum: AGD66	Drainage: No Data

Geology

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

Land Form

Rel/Slope Class: No Data	Pattern Type: No Data
Morph. Type: No Data	Relief: No Data
Elem. Type: Pediment	Slope Category: Level
Slope: 1 %	Aspect: 0 degrees

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

Erosion:

Soil Classification

Australian Soil Classification: N/A	Mapping Unit: N/A
ASC Confidence: Confidence level not specified	Principal Profile Form: Ug5.12
	Great Soil Group: Black earth

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.08 m	Black (10YR2/1-Moist); Very dark grey (10YR3/1-Dry); ; Medium clay; Strong grade of structure, 5-10 mm, Granular; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Sharp, Smooth change to -
A12	0.08 - 0.25 m	Very dark grey (10YR3/1-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.55 m	Very dark grey (10YR3/1-Moist); , 10YR82, 0-2% , 0-5mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular 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 8.8 (pH meter);
A14	0.55 - 0.77 m	Dark brown (7.5YR3/2-Moist); , 10YR82, 2-10% , 0-5mm, Distinct; Medium heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded tabular, Silcrete, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.8 (pH meter); Clear, Irregular change to -
B2	0.77 - 1.26 m	Dark greyish brown (10YR4/2-Moist); , 10YR82, 0-2% , 0-5mm, Prominent; Medium heavy clay; Weak grade of structure, 50-100 mm; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, subrounded tabular, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.8 (pH meter); Clear, Irregular change to -
C	1.26 - 1.6 m	Brown (7.5YR5/4-Moist); , 10YR84, 10-20% , 5-15mm, Distinct; , 10YR32, 20-50% , 5-15mm, Prominent; Medium clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 90-100%, medium gravelly, 6-20mm, subangular, Basalt, coarse fragments; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.8 (pH meter);

Morphological Notes

A11p Smith and Ward. Signs in 059.02 of inwashed sand film. Texture of .06 very gravelly medium clay.

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed059 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Observation Notes

Parent Rock: saprolite, basalt, colluvium, thick, with basalt

Site Notes

Several coarse fragments of silcrete in topsoil and some fractured silcrete pebbles suggest midden. The slope is very gentle. No deep cracks were seen but one was found by chart penetrometer.

Observation ID: 1

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	7.56A	0.049A	28.89B	11.78	0.98	0.39			
0 - 0.08	7.18A	0.157A	33.56B	22.67	0.96	0.3			
0.1 - 0.2	8.61A	0.102A	32.69B	23.24	0.33	0.58			
0.3 - 0.4	8.87A	0.151A	33.14B	27.81	0.26	1.35			
0.7 - 0.77	9.14A	0.188A	30.12B	29.6	0.28	3.53			
1.2 - 1.26	9.31A	0.296A	26.35B	29.24	0.4	4.9			
1.5 - 1.6	9.55A	0.247A	27.43B	20.36	0.24	4.46			

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	0.91C									20.5 48.2
0 - 0.08	0.1B	1.29C	8.1J								20 46.4
0.1 - 0.2	0.7B	0.61C	1J								20.1 49.2
0.3 - 0.4	1.4B	0.56C	<1J								19.5 51.8
0.7 - 0.77	1.9B	0.45C	<1J								20 52.5
1.2 - 1.26	5.3B	0.25C	1.2J								20.9 53.1
1.5 - 1.6	10.3B	0.03C	<1J								24.9 33

[illegible]

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed059 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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
P10_CF_Z	Silt (%) - Coventry and Fett pipette method