

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed079 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: W.T. Ward **Locality:** K.G.(Ken) Walker, Westholme
Date Desc.: 05/01/87 **Elevation:** 220 metres
Map Ref.: Sheet No. : 8837_N 1:50000 **Rainfall:** No Data
Northing/Long.: 6667800 AMG zone: 55 **Runoff:** No Data
Easting/Lat.: 763700 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:** Flood plain
Morph. Type: No Data **Relief:** No Data
Elem. Type: No Data **Slope Category:** Level
Slope: 0 % **Aspect:** No Data

Surface Soil Condition (dry): Surface crust

Erosion:

Soil Classification

Australian Soil Classification: N/A **Mapping Unit:** N/A
ASC Confidence: Confidence level not specified **Principal Profile Form:** Ug5.14
Great Soil Group: Brown clay

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11 0 - 0.1 m Dark brown (7.5YR3/2-Moist); Dark brown (7.5YR3/2-Dry); ; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots;

A12 0.1 - 0.2 m Dark brown (7.5YR3/2-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -

2A11 0.2 - 0.55 m Very dark brown (10YR2/2-Moist); , 7.5YR64, 0-2% , 0-5mm, Distinct; , 7.5YR74, 0-2% , 0-5mm, Faint; Light 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; Very strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, medium (2-5mm) roots;

2A12 0.55 - 0.9 m Brown (7.5YR4/2-Moist); , 7.5YR74, 0-2% , 0-5mm, Distinct; , 5YR43, 0-2% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 50-100 mm, Prismatic; Weak 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 strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -

2B2 0.9 - 1.16 m Dark reddish brown (5YR3/3-Moist); , 7.5YR82, 2-10% , 5-15mm, Prominent; , 7.5YR74, 0-2% , 5-15mm, Distinct; Light medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, subrounded, Consolidated rock (unidentified), coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Gypseous, Medium (2 -6 mm), Crystals; Field pH 8.5 (pH meter); Few, medium (2-5mm) roots;

Morphological Notes

A11 The carbonates at 85cm also occur as soft segregations. A stone line at 103-105cm includes basalt, quartz and sandstone. Also at 116cm there appear to be more stones, as casts of stones may be observed. Soil too developed to be a floodplain

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A12 . Possibly equals red terrace Q but note heavy lime impregnation (plus gypsum). Burial shown by sandy textured top and inwashed sand below.

Observation Notes

Parent Rock: alluvial sediment, mixed texture, with lime, parna on third fan

Site Notes

Hole stopped at 116cm by waterworn gravels.. Hole on side of creek in cleared strip. (Bearing 18 to Westholme).

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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