

Project Name: SOIL STRUCTURE & MANAGEMENT
Project Code: SSM **Site ID:** SSM140 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	G.M. Bowman	Locality:	
Date Desc.:	07/03/91	Elevation:	100 metres
Map Ref.:	Sheet No. : 7725 1:100000	Rainfall:	No Data
Northing/Long.:	5960230 AMG zone: 55	Runoff:	Slow
Easting/Lat.:	242600 Datum: AGD66	Drainage:	Poorly drained

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Qs	Substrate Material:	No Data

Land Form

Rel/Slope Class:	No Data	Pattern Type:	Alluvial plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Mesonatric Red Sodosol	Principal Profile Form:	Dy2.13
ASC Confidence:	Great Soil Group:	Red-brown earth
Confidence level not specified		

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

Ap	0 - 0.05 m	Yellowish red (5YR4/6-Moist); Yellowish red (5YR5/6-Dry); ; Sandy loam; Weak grade of structure, 10-20 mm, Angular blocky; 20-50 mm, Lenticular; Sandy (grains prominent) fabric; Common (1-5 per 100mm ²) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Non-plastic; Non-sticky; Few, very fine (0-1mm) roots; Sharp, Smooth change to -
B21	0.05 - 0.25 m	Red (2.5YR5/6-Moist); Red (2.5YR4/6-Dry); ; Heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; 20-50 mm, Prismatic; Smooth-ped fabric; Common (1-5 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Non-plastic; Non-sticky; Few, very fine (0-1mm) roots; Gradual, Irregular change to -
B22	0.25 - 0.44 m	Red (2.5YR4/6-Moist); Strong brown (7.5YR5/6-Dry); ; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; 20-50 mm, Lenticular; Rough-ped fabric; Common (1-5 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Non-plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, coarse fragments; Few, very fine (0-1mm) roots; Abrupt, Irregular change to -
2A	0.44 - 0.7 m	Strong brown (7.5YR4/6-Moist); Strong brown (7.5YR5/8-Dry); ; Medium sandy clay loam; Weak grade of structure, 10-20 mm, Subangular blocky; 50-100 mm, Prismatic; Earthy fabric; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Non-plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations, weak, segregations; Soil matrix is Slightly calcareous; Few, very fine (0-1mm) roots; Abrupt, Irregular change to -
2B22	0.7 - 1 m	Brown (7.5YR5/4-Moist); Strong brown (7.5YR5/6-Dry); Substrate influence, 7.5YR56; Mottles, 10YR54, 2-10% , Distinct; Light clay; Weak grade of structure, 20-50 mm, Subangular blocky; 50-100 mm, Prismatic; Rough-ped fabric; Moist; Firm consistence; Slightly plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations, weak, segregations; Soil matrix is Slightly calcareous;

Morphological Notes

Ap Very hard shallow A.

B21 Dense red B

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B22 Grading out - becoming more sandy.

2A ? buried soil or unweathered material.

2B22 Becoming denser with depth.

Observation Notes

Cropped several years after pasture. Problems with disease.

Site Notes

PHIL MORTON

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[illegible]

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Laboratory Analyses Completed for this profile

13A1_AL	Oxalate-extractable aluminium
13A1_FE	Oxalate-extractable iron
13A1_MN	Oxalate-extractable manganese
13A1_SI	Oxalate-extractable silicon
13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_MN	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_SI	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
14H1_CA	Soluble bases/SE (Ca,Mg,K,Na)
14H1_K	Soluble bases/SE (Ca,Mg,K,Na)
14H1_MG	Soluble bases/SE (Ca,Mg,K,Na)
14H1_NA	Soluble bases/SE (Ca,Mg,K,Na)
15F1_CA	Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts
15F1_K	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_MG	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_NA	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F3	CEC by 0.01M silver-thiourea (AgTU)+
15N1	Exchangeable sodium percentage (ESP)
3A1	EC of 1:5 soil/water extract
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6B3	Total organic carbon - high frequency induction furnace, infrared
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm3
P3B3VLc001	0.01 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc003	0.03 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc005	0.05 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc01	0.1 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc03	0.3 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLcSAT	Saturated Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P6_LP	Dispersion Index (Loveday and Pyle, 1973)
PWS20-63	20-63 micron fraction (%) - Wet Sieving after chemical dispersion
PWS212-425	212-425 micron fraction (%) - Wet Sieving after chemical dispersion
PWS425-1mm	425-1000 micron fraction (%) - Wet Sieving after chemical dispersion
PWS63-212	63-212 micron fraction (%) - Wet Sieving after chemical dispersion