Project Name: Project Code: Agency Name:	SOIL STRUCTURE & MAN SSM Site ID: CSIRO Division of Soils (A	SSM11 O	bservation ID:	1			
Site Informatio Desc. By: Date Desc.: Map Ref.: Northing/Long.: Easting/Lat.:	<u>n</u> G. W. Geeves 11/02/91 Sheet No. : 8630 1:50000 6258200 AMG zone: 55 648200 Datum: AGD66	Locality: Elevation: Rainfall: Runoff: Drainage:	290 metres No Data Very slow Moderately well d	rained			
<u>Geology</u> ExposureType: Geol. Ref.:	Undisturbed soil core Cza	Conf. Sub. is Pare Substrate Material		a solidated material (unidentified)			
Land Form Rel/Slope Class: Morph. Type: Elem. Type: Slope:	Flat Plain 0 %	Pattern Type: Relief: Slope Category: Aspect:	Terrace (alluvial) No Data No Data No Data				
Surface Soil Control Solice So	ondition (dry): Soft						
Soil Classificat	ion						
Australian Soil C Eutrophic Red De ASC Confidence Confidence level <u>Site Disturbane</u> <u>Vegetation:</u> <u>Surface Coarse</u>	rmosol e: not specified <u>ce:</u> No effective disturbance. Natu	Princi Great	ng Unit: pal Profile Form: Soil Group: . Pasture, native or	N/A Gn2.12 Red earth improved, cultivated at some stage,			
Profile Morpho							
O2 0 - 0.02 A11 0.02 - 0.	04 m Brown (7.5YR4/3-Moist); ; fabric; Fine, (0 - 5) mm cra 2mm) macropores, Comm	ack; Medium, (5 - 10) n on (1-5 per 100mm2)) macropores, Dry; Lo ommon, fine (1-2mm)	nm crack; Common Very fine (0.075-1m ose consistence; N	n (1-5 per 100mm2) Fine (1- nm) macropores, Few (<1 per on-plastic; Non-sticky; Many,			
A12 0.04 - 0.	Earthy fabric; Coarse, (10 Common (1-5 per 100mm) (0.075-1mm) macropores, consistence; Non-plastic; I	Brown (7.5YR4/4-Moist); ; Sandy loam; Weak grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Coarse (>5mm) macropores, Dry; Weak consistence; Non-plastic; Non-sticky; Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Irregular change to -					
AB 0.11 - 0.	 Yellowish red (5YR4/6-Moist); ; Silty clay loam; Massive grade of structure; Rough-ped fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Medium (2-5mm) macropores, Few (<1 per 100mm2) Coarse (>5mm) macropores, Dry; Very firm consistence; Slightly plastic; Non-sticky; Cultivation pan, Uncemented, Discontinuous, Massive; Common, very fine (0-1mm) roots; Few, fine (1- 2mm) roots; Few, medium (2-5mm) roots; Diffuse, Irregular change to - 						
B1 0.22 - 0.	Yellowish red (5YR4/8-Moist); Mottles, 2.5YR36, 10-20%, Prominent; Silty clay; Moderate grade of structure, 20-50 mm, Angular blocky; 100-200 mm, Prismatic; Rough-ped fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Medium (2-5mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Coarse (>5mm) macropores, Moderately moist; Very firm consistence; Slightly plastic; Slightly sticky; Many cutans, >50% of ped faces or walls coated, prominent; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations, weak, segregations;Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Diffuse, Irregular change to -						

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- B21 0.37 0.77 m Yellowish red (5YR5/8-Moist); Mottles, 2.5YR36, 20-50%, Prominent; Silty clay; Moderate grade of structure, 20-50 mm, Angular blocky; 100-200 mm, Prismatic; Rough-ped fabric; Very coarse, (20 50) mm crack; Coarse, (10 20) mm crack; Medium, (5 10) mm crack; Common (1-5 per 100mm2) Medium (2-5mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Slightly plastic; Slightly sticky; Many cutans, >50% of ped faces or walls coated, prominent; Few (2 10%), Manganiferous, Medium (2 -6 mm), Soft segregations, weak, segregations; Common, very fine (0-1mm) roots;
- B22 0.77 0.92 m Dark red (2.5YR3/6-Moist); Mottles, 5YR36, 20-50%, Prominent; Moderate grade of structure, 20-50 mm, Angular blocky; 20-50 mm, Prismatic; Rough-ped fabric; Very coarse, (20 50) mm crack; Coarse, (10 20) mm crack; Medium, (5 10) mm crack; Common (1-5 per 100mm2) Medium (2-5mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Very firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; Few (2 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations, weak, segregations; Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots;

Morphological Notes

Observation Notes

Site Notes

COWRA-DELAYNEYS WOODLAND

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Laboratory Test Results:

Depth	рН	1:5 EC		hangeable			changeable	CEC	ECEC		ESP
m		dS/m	Ca I	Mg	к	Na Cmol (+)/k	Acidity kg				%
0.02 - 0.04 0.03 - 0.105	5.87B	0.583A	7.41J	3	0.73	0.03		111		(0.27
0.03 - 0.103	5.89B	0.183A	7.76J	3.65	0.61	0.01		12.411		(80.0
0.07 - 0.11	5.54B	0.091A	6.1J	2.86	0.6	0.04		8.86I		(0.45
0.12 - 0.22	5.61B	0.089A	3.98J	2.02	0.57	0.02		6.34I		(0.32
0.22 - 0.32	5.58B	0.031A	1.9J	1.86	0.55	0.08		5.441			1.47
0.23 - 0.305											
0.37 - 0.77											
0.72 - 0.82	5.3B	0.042A	3.84J	5.17	0.31	0.25		10.061		:	2.49
Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle	Size	Analysi	s
		С	Р	Р	Ν	к	Density	GV CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%		
0.02 - 0.04		7.16C								30	11
0.03 - 0.105							1.45				
0.04 - 0.07		4.52C								32	11
0.07 - 0.11		3.14C								33	12
0.12 - 0.22		1.58C								32	11
0.22 - 0.32		0.25C								27	21
0.23 - 0.305							1.64				
0.37 - 0.77											
0.72 - 0.82		0.14C								20	41

Depth	COLE Gravimetric/Volumetric Water Contents						K sat	K unsat	
m		Sat.	0.05 Bar		5 Bar 1 Bar m3/m3	5 Bar	15 Bar	mm/h	mm/h
0.02 - 0.04 0.03 - 0.105 0.04 - 0.07 0.07 - 0.11		0.4F	0.31F	0.291	0.19F	0.13D	0.1G		
0.12 - 0.22 0.22 - 0.32 0.23 - 0.305 0.37 - 0.77 0.72 - 0.82		0.35F	0.28F	0.261	0.2F	0.15D	0.12G		

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Laboratory Analyses Completed for this profile

13A1_AL 13A1_FE 13A1_MN	Oxalate-extractable aluminium Oxalate-extractable iron 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 15F1_NA	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_NA 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
P3B3VLd06	0.6 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on
	pressure plate
P3B3VLd1	1 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on
D2D2)// d15	pressure plate
P3B3VLd15	15 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd3	3 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on
PSDSVLUS	pressure plate
P3B3VLd5	5 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on
FSDSVLUS	pressure 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
1 11000 212	co 212 motor matter (v) were blowing aller bhombar aloperation