

**Project Name:** WAGGA WAGGA SOIL LANDSCAPES  
**Project Code:** 1000448      **Site ID:** WW153      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Site Information**

<b>Desc. By:</b>	Chen, XY	<b>Locality:</b>	
<b>Date Desc.:</b>	15/07/93	<b>Elevation:</b>	208 metres
<b>Map Ref.:</b>	Sheet No. : 8327 1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6125750 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	526125 Datum: AGD66	<b>Drainage:</b>	Imperfectly drained

**Geology**

<b>Exposure Type:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	Cza	<b>Substrate Material:</b>	Sand

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Pediment
<b>Morph. Type:</b>	Open depression (vale)	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Drainage depression	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	45 degrees

**Surface Soil Condition (dry):** Hardsetting

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Bleached-Mottled Brown Chromosol Thick Moderately gravelly Loamy	<b>Principal Profile Form:</b>	Db2.41
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Soloth
Confidence level not specified		

**Site Disturbance:** Complete clearing. Pasture, native or improved, but never cultivated

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

A1	0 - 0.25 m	Dark brown (7.5YR3/3-Moist); ; Clay loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Weak consistence; Moderately plastic; Moderately sticky; Field pH 5.5 (Raupach); Many, fine (1-2mm) roots; Clear, Smooth change to -
A2	0.25 - 0.42 m	Brown (7.5YR5/3-Moist); Pinkish grey (7.5YR7/3-Dry); ; Silty clay loam; Massive grade of structure; Earthy fabric; Common (1-5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Many (20 - 50 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules, strong, segregations; Many (20 - 50 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, strong, segregations; Field pH 8.5 (Raupach); Common, fine (1-2mm) roots; Clear, Smooth change to -
B	0.42 - 0.7 m	Strong brown (7.5YR4/6-Moist); Mottles, 10-20% , Faint; Light medium clay; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules, strong, segregations; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, strong, segregations; Field pH 5.5 (Raupach); Few, fine (1-2mm) roots;

**Morphological Notes**

**Observation Notes**

Very shallow, flat and wide drainage line.

**Site Notes**

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Exchangeable Cations		Exchangeable Acidity		CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Cmol (+)/kg		%
0 - 0.25	5.8B	0.03A	5.1J	1.9	0.6	0.6	0L	10.2I	5.88
0.25 - 0.42	5.9B	0.09A	2.8J	3.8	0.4	1.5	0L	10.3I	14.56
0.42 - 0.7	5.6B	0.42A	2.5J	5.8	0.7	1.9	0L	9.9I	19.19

  

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.25		0.61A	0D					4	6F	42	28 20
0.25 - 0.42		0.12A	0D					7	7F	36	25 25
0.42 - 0.7		0.12A	0D					5	13F	36	15 31

  

Depth	COLE	Gravimetric/Volumetric Water Contents						K	
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	mm/h
m					g/g - m3/m3				mm/h
0 - 0.25				0.43B				0.12B	
0.25 - 0.42				0.28B				0.11B	
0.42 - 0.7				0.4B				0.16B	

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**Laboratory Analyses Completed for this profile**

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
15F2	Exchangeable aluminium by 0.01m (AgTU)+
15F3	CEC by 0.01M silver-thiourea (AgTU)+
3A1	EC of 1:5 soil/water extract
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1	Organic carbon - Walkley and Black
9E	Available P (mg/kg) - Bray P
9J2	Phosphate sorption curve - automated colour
P10_GRAV	Gravel (%)
P10_HYD_C	Clay (%) - Hydrometer Method
P10_HYD_CS	Coarse Sand (%) - Hydrometer Method
P10_HYD_FS	Fine Sand (%) - Hydrometer Method
P10_HYD_Z	Silt (%) - Hydrometer Method
P3B_GV_01	0.1 BAR Moisture g/g - Gravimetric using suction plate
P3B_GV_15	15 BAR Moisture g/g - Gravimetric using pressure plate