

**Project Name:** WAGGA WAGGA SOIL LANDSCAPES  
**Project Code:** 1000448      **Site ID:** WW148      **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>	279 metres
<b>Map Ref.:</b>	Sheet No. : 8327 1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6107225 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	527575 Datum: AGD66	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	Existing vertical exposure	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	Ou	<b>Substrate Material:</b>	Clay

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Low hills
<b>Morph. Type:</b>	Open depression (vale)	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Valley flat	<b>Slope Category:</b>	No Data
<b>Slope:</b>	4 %	<b>Aspect:</b>	0 degrees

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

**Erosion:** Partial, Moderate (gully)

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Bleached-Mottled Brown Chromosol Thick Moderately gravelly Sandy	<b>Principal Profile Form:</b>	Db2.42
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
Confidence level not specified		

#### Site Disturbance:

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.3 m	Dark brown (10YR3/3-Moist); ; Fine sandy clay loam; Moderate grade of structure, 50-100 mm, Prismatic; Rough-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Firm consistence; Slightly plastic; Moderately sticky; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules, strong, segregations;Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, strong, segregations;Field pH 5.5 (Raupach); Many, fine (1-2mm) roots; Gradual, Smooth change to -
A2	0.3 - 0.55 m	Brown (10YR5/3-Moist); Light grey (10YR7/2-Dry); ; Silty clay loam; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Firm consistence; Slightly plastic; Moderately 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 7 (Raupach); Few, fine (1-2mm) roots; Gradual, Smooth change to -
B	0.55 - 1.2 m	Dark yellowish brown (10YR4/4-Moist); Mottles, 20-50% , Faint; Mottles, 2-10% , Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; 100-200 mm, Prismatic; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Moderately plastic; Very sticky; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules, strong, segregations;Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, strong, segregations;Field pH 6.5 (Raupach); Few, fine (1-2mm) roots;

#### Morphological Notes

A2	Bottom 'intrudes' to layer 3.	High silt.
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#### Observation Notes

Red soil at a nearby gully in west.

#### Site Notes

15M IN FENCE, W SIDE OF EASTERN GULLY

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.3	4.7B	0.06A	4.1J	1.3	0.4	0.3	0L	9.9I		3.03
0.3 - 0.55	5.8B	0.03A	3J	2.2	0.4	0.7	0L	7.1I		9.86
0.55 - 1.2	6.1B	0.21A	4.7J	6.2	0.5	3.1	0L	14.3I		21.68

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.3		1.13A	1D						9F	53	22	16
0.3 - 0.55		0.12A	0D					9	13F	44	21	13
0.55 - 1.2		0.08A	0D					2	14F	33	13	38

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	mm/h	mm/h
				g/g - m3/m3						
0 - 0.3				0.42B				0.1B		
0.3 - 0.55				0.34B				0.08B		
0.55 - 1.2				0.45B				0.19B		

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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