

**Project Name:** Warren Reservoir Catchment Survey  
**Project Code:** WRN **Site ID:** 110 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (SA)

#### Site Information

<b>Desc. By:</b>	I. Hollingsworth	<b>Locality:</b>	
<b>Date Desc.:</b>	29/04/91	<b>Elevation:</b>	423 metres
<b>Map Ref.:</b>	1:10000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6155080 AMG zone: 54	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	315900 Datum: AGD66	<b>Drainage:</b>	Poorly drained

#### Geology

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Undisturbed soil core, 3 m deep, Porous, Clay

#### Land Form

<b>Rel/Slope Class:</b>	Undulating plains <9m 3-10%	<b>Pattern Type:</b>	Peneplain
<b>Morph. Type:</b>	Open depression (vale)	<b>Relief:</b>	5 metres
<b>Elem. Type:</b>	Drainage depression	<b>Slope Category:</b>	Level
<b>Slope:</b>	0.5 %	<b>Aspect:</b>	70 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Sodosol		<b>Principal Profile Form:</b>	Dg2.43
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Solodized solonetz
Confidence level not specified			

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

**Vegetation:** Low Strata - Sod grass, <0.25m, Mid-dense. \*Species includes - Medicago sativa, Hordeum marinum

**Surface Coarse Fragments:** No surface coarse fragments

#### Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Light brownish grey (10YR6/2-Dry); , 7.5YR46, 2-10% , 0-5mm, Distinct; Sandy loam; Single grain grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Loose consistence; Non-plastic; Slightly sticky; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Clear, Smooth change to -
A2	0.1 - 0.3 m	Dark greyish brown (10YR4/2-Moist); Light grey (10YR7/1-Dry); , 5YR33, 2-10% , 0-5mm, Distinct; Loamy sand; Massive grade of structure; Medium, (5 - 10) mm crack; Loose consistence; Non-plastic; Slightly sticky; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Sharp, Irregular change to -
Bt	0.3 - 0.35 m	Light grey (10YR7/1-Moist); White (10YR8/1-Dry); , 10YR58, 10-20% , 5-15mm, Distinct; Sandy clay; Single grain grade of structure; Moist; Loose consistence; Slightly plastic; Slightly sticky; 0-2%, fine gravelly, 2-6mm, angular, dispersedstrong, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 7 (Raupach); Few, very fine (0-1mm) roots; Sharp, Irregular change to -
Bt	0.35 - 0.5 m	Greyish brown (10YR5/2-Moist); Light grey (10YR7/2-Dry); , 10YR58, 20-50% , 5-15mm, Distinct; , 10YR32; Medium heavy clay; Moderate grade of structure; Loose consistence; Very plastic; Normal plasticity; Slightly sticky; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Veins; Field pH 10 (Raupach);
Btk	0.5 - 0.6 m	Greyish brown (2.5Y5/2-Moist); Light yellowish brown (2.5Y6/4-Dry); , 10YR58, 20-50% , 0-5mm, Distinct; Light clay; Strong grade of structure; Strong consistence; Slightly plastic; Slightly sticky; 50-90%, medium gravelly, 6-20mm, rounded tabular, stratifiedstrong, Schist, coarse fragments; Field pH 7 (Raupach); Few, very fine (0-1mm) roots;
Btk	0.6 - 1 m	; Light clay; Slightly plastic; Slightly sticky; Field pH 7.5 (Raupach); Few, very fine (0-1mm)

#### Morphological Notes

#### Observation Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m					g/g -	m3/m3			mm/h	mm/h

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Laboratory Analyses Completed for this profile