

**Project Name:** Warren Reservoir Catchment Survey  
**Project Code:** WRN **Site ID:** 055 **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>	29/11/90	<b>Elevation:</b>	417 metres
<b>Map Ref.:</b>	1:10000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6157870 AMG zone: 54	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	318620 Datum: AGD66	<b>Drainage:</b>	Poorly drained

#### Geology

<b>Exposure Type:</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, 1 m deep, Porous, Clay

#### Land Form

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Peneplain
<b>Morph. Type:</b>	Open depression (vale)	<b>Relief:</b>	2 metres
<b>Elem. Type:</b>	Drainage depression	<b>Slope Category:</b>	Very gently sloped
<b>Slope:</b>	0.5 %	<b>Aspect:</b>	170 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Sodosol		<b>Principal Profile Form:</b>	Dy3.43
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Solodized solonetz
Confidence level not specified			

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

#### Vegetation:

Tall Strata - Tree, 6.01-12m, Isolated plants. \*Species includes - Eucalyptus leucoxylon

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

#### Profile Morphology

A1	0 - 0.15 m	Dark greyish brown (10YR4/2-Moist); Light grey (10YR7/1-Dry); , 10YR58, 0-2% , 0-5mm, Distinct; Silty 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; Clear, Smooth change to -
A2	0.15 - 0.3 m	Greyish brown (10YR5/2-Moist); White (10YR8/1-Dry); , 10YR56, 0-2% , 5-15mm, Faint; Clayey sand; Massive grade of structure; Moderately moist; Weak consistence; Sharp, Smooth change to -
Bts	0.3 - 0.5 m	Dark greyish brown (10YR4/2-Moist); Dark greyish brown (10YR4/2-Dry); , 7.5YR58, 10-20% , 5-15mm, Distinct; Medium clay; Weak grade of structure; Moist; Loose consistence; Clear, Smooth change to -
Bt	0.5 - 0.7 m	Yellowish brown (10YR5/4-Moist); Light yellowish brown (10YR6/4-Dry); , 10YR68, 10-20% , 15-30mm, Distinct; Light medium clay; Moderate grade of structure; Wet; Loose consistence; Sharp, Smooth change to -
Btk	0.7 - 0.8 m	Light yellowish brown (10YR6/4-Moist); Light yellowish brown (10YR6/4-Dry); , 10YR58, 20-50% , 5-15mm, Faint; Sandy clay; Strong grade of structure; Strong consistence; Sharp, Smooth change to -
BC	0.8 - 1 m	Light grey (10YR7/2-Moist); Light grey (10YR7/1-Dry); , 10YR68, 20-50% , 5-15mm, Distinct; Sandy clay; Single grain grade of structure; Loose consistence; Clear, Wavy change to -
C	1 - 2 m	Light brownish grey (10YR6/2-Moist); Light grey (10YR7/2-Dry); , 7.5YR58, 20-50% , 30-mm, Distinct; , 10YR68; Sandy clay loam; Single grain grade of structure; Loose consistence;

#### Morphological Notes

#### Observation Notes

#### Site Notes

A1416

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**Laboratory Analyses Completed for this profile**

14E3	Chloride/SE - automated colour
14F1	Sulfate/SE - ICPAES
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)
15B2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_K	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_MG	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_NA	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15I3	CEC measurement - automated determination of ammonium and chloride ions
15J_BASES	Sum of Bases
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
5A2	Chloride - 1:5 soil/water extract, automated colour
6B3	Total organic carbon - high frequency induction furnace, infrared
7A5	Total nitrogen - high frequency induction furnace, thermal conductivity
9B2	Bicarbonate-extractable phosphorus - automated colour
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette