

Project Name: Warren Reservoir Catchment Survey
Project Code: WRN **Site ID:** 401 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By: I. Hollingsworth	Locality:
Date Desc.: 31/12/91	Elevation: 437 metres
Map Ref.: 1:10000	Rainfall: No Data
Northing/Long.: 6155440 AMG zone: 54	Runoff: Slow
Easting/Lat.: 319865 Datum: AGD66	Drainage: Imperfectly drained

Geology

ExposureType: Soil pit	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data	Substrate Material: Soil pit, 0.9 m deep, Slightly porous,

Land Form

Rel/Slope Class: Undulating low hills 30-90m 3-10%	Pattern Type: Alluvial fan
Morph. Type: Crest	Relief: 5 metres
Elem. Type: Hillslope	Slope Category: Very gently sloped
Slope: 3 %	Aspect: 300 degrees

Surface Soil Condition (dry): Soft

Erosion: Minor (sheet)

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Chromosol	Principal Profile Form: Dy5.21
ASC Confidence:	Great Soil Group: Soloth
Confidence level not specified	

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation: Low Strata - Sod grass, 0.26-0.5m, Closed or dense. *Species includes - Danthonia species, Hordeum marieum

Tall Strata - Tree, 20.01-35m, Isolated plants. *Species includes - Eucalyptus camaldulensis

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.05 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); , 0-0% ; Loamy sand; Strong grade of structure, 2-5 mm, Granular; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Weak consistence; Non-plastic; Non-sticky; Field pH 6 (Raupach); Abundant, very fine (0-1mm) roots; Clear, Smooth change to -
A12	0.05 - 0.1 m	Dark yellowish brown (10YR4/4-Moist); Brown (7.5YR5/2-Dry); , 0-0% ; Loamy sand; Massive grade of structure; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Weak consistence; Non-plastic; Non-sticky; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Clear, Smooth change to -
A2	0.1 - 0.3 m	Strong brown (7.5YR5/6-Moist); Light brown (7.5YR6/4-Dry); , 7.5YR58, 0-2% , 0-5mm, Faint; Loamy sand; Massive grade of structure; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Weak consistence; Non-plastic; Non-sticky; 2-10%, medium gravelly, 6-20mm, angular, stratifiedstrong, Quartz, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Sharp, Smooth change to -
Bt	0.3 - 0.35 m	Strong brown (7.5YR5/8-Dry); , 2.5YR36, 20-50% , 5-15mm, Distinct; , 10YR43; Heavy clay; Moderate grade of structure, 20-50 mm, Columnar; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Very plastic; Normal plasticity; Moderately sticky; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
Bt	0.35 - 0.5 m	, 2.5YR36, 20-50% , 5-15mm, Distinct; , 7.5YR58; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Strong grade of structure, 2-5 mm, Polyhedral; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Very plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, prominent; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
Btg	0.5 - 0.8 m	, 2.5YR36, 0-0% ; , 5Y71; Medium clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very plastic; Normal plasticity; Moderately sticky; Many cutans, >50% of ped faces or walls coated, prominent; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 4 (Raupach); Few, very fine (0-1mm) roots; Clear, Smooth change to -

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Btg	0.8 - 0.95 m	Light grey (5Y7/1-Moist); , 2.5YR36, 20-50% , 5-15mm, Distinct; , 7.5YR58; Heavy clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very plastic; Normal plasticity; Moderately sticky; Many cutans, >50% of ped faces or walls coated, prominent; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 4 (Raupach); Sharp, Wavy change to -
Bqm	0.95 - m	, 0-0% ; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Rigid consistence; Non-plastic; Non-sticky; Many cutans, >50% of ped faces or walls coated, prominent; Many cutans, >50% of ped faces or walls coated, prominent; Duripan, Very strongly cemented, Continuous, Massive; Field pH 4 (Raupach);

Morphological Notes

Observation Notes

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[illegible]

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Laboratory Analyses Completed for this profile

15B2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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
15G1	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride
15I3	CEC measurement - automated determination of ammonium and chloride ions
15J_BASES	Sum of Bases
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
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette