

**Project Name:** SOR  
**Project Code:** SOR      **Site ID:** H78      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (TAS)

**Site Information**

<b>Desc. By:</b>	J. Loveday	<b>Locality:</b>	.4km W of rd junction near Carlton house
<b>Date Desc.:</b>	27/01/54	<b>Elevation:</b>	91 metres
<b>Map Ref.:</b>	Sheet No. : 8412    1:100000	<b>Rainfall:</b>	540
<b>Northing/Long.:</b>	147.69666667	<b>Runoff:</b>	Rapid
<b>Easting/Lat.:</b>	-42.8683333	<b>Drainage:</b>	Imperfectly drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Soil pit, 0.69 m deep, Dolerite

**Land Form**

<b>Rel/Slope Class:</b>	Rolling hills 90-300m 10-32%	<b>Pattern Type:</b>	Hills
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Moderately inclined
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Ferric Eutrophic Brown Chromosol		<b>Principal Profile Form:</b>	Db1.22
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Grey-brown podzolic soil

All necessary analytical data are available.

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

**Vegetation:** Low Strata - Tussock grass, 0.26-0.5m, Sparse. \*Species includes - Lomandra longifolia  
Tall Strata - Tree, 12.01-20m, Very sparse. \*Species includes - Eucalyptus globulus, Acacia species

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

**Profile Morphology**

A1	0 - 0.08 m	Greyish brown (2.5Y5/2-Moist); ; Fine sandy loam; Weak grade of structure, Granular; Dry; Weak consistence; 0-2%, Gravel, coarse fragments; CommonDiffuse change to -
A12	0.08 - 0.14 m	Light brownish grey (2.5Y6/2-Moist); ; Fine sandy loam (Light); Massive grade of structure; Dry; Weak consistence; 0-2%, Gravel, coarse fragments; Diffuse change to -
A21	0.14 - 0.2 m	Light brownish grey (2.5Y6/2-Moist); ; Fine sandy loam (Light); Massive grade of structure; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Firm consistence; 2-10%, Dolerite, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; Diffuse change to -
A22	0.2 - 0.25 m	Light brownish grey (2.5Y6/2-Moist); ; Fine sandy loam (Light); Massive grade of structure; Dry; Firm consistence; 2-10%, Dolerite, coarse fragments; Very many (50 - 100 %), Ferruginous, Medium (2 -6 mm), Concretions; Sharp change to -
B1	0.28 - 0.33 m	Olive brown (2.5Y4/4-Moist); , 10YR56; Heavy clay; , Subangular blocky; Dry; Rigid consistence; 2-10%, Dolerite, coarse fragments; Common (10 - 20 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
B	0.33 - 0.48 m	Olive brown (2.5Y4/4-Moist); , 10YR56; Heavy clay; 50-100 mm, Prismatic; Massive grade of structure; Dry; Rigid consistence; 2-10%, Gravel, coarse fragments; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
BC	0.48 - 0.58 m	Olive brown (2.5Y4/4-Moist); , 10YR56; Heavy clay; 50-100 mm, Prismatic; Massive grade of structure; Moderately moist; Very firm consistence; 10-20%, Gravel, coarse fragments; Very few (0 - 2 %), Unidentified, , Concretions; Diffuse change to -
C	0.58 - 0.69 m	Olive brown (2.5Y4/4-Moist); , 10YR56;

**Morphological Notes**

**Observation Notes**

58-69CM DECOMPOSED DOLERITE:48-58CM COARSE FRACTION IS GRITTY W'D DOLERITE:

**Site Notes**

PEMBROKE

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.08	5.8A		4.8H	1.9	0.29	0.21	6H 9.7E	10C	17B	
0.08 - 0.14	5.7A									
0.14 - 0.2	6.2A		5.2H	1.7	0.15	0.23	3.9H 6.7E		14B	
0.2 - 0.25	6.1A									
0.28 - 0.33	6.9A		6.3H	6.6	0.14	0.84	1.9H 5.1E		19B	
0.33 - 0.48	7.2A									
0.48 - 0.58	7.7A									
0.58 - 0.69	7.7A		10.7H	13.9	0.17	3.8	2.2E		30.8B	

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 - 0.08		2.3D		0.007D	0.181A			1	8D	56	18	12
0.08 - 0.14		1.4D			0.109A							
0.14 - 0.2		1.1D			0.075A			6	12D	54	25	5
0.2 - 0.25												
0.28 - 0.33		0.6D		0.005D				20	14B	43	15	27
0.33 - 0.48												
0.48 - 0.58												
0.58 - 0.69				0.005D				0	38B	21	12	25

[illegible]

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**Laboratory Analyses Completed for this profile**

15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15E1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C_H1	Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A_HCL	Total element - P(%) - By boiling HCl
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette