Project Name: SOR
Project Code: SOR **Site ID:** H85 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: C.G. Stephens
Date Desc.: 04/02/54
Map Ref.: Sheet No. : 8412 1:100000
Northing/Long.: 147.583333333333
Easting/Lat.: -42.7666666666667
Locality: 1.6km along Pawleena rd from Arthur h`way t`off
Elevation: 15 metres
Rainfall: 560
Runoff: Slow
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Soil pit, 1.6 m deep,Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Undulating low hills 30-90m 3-10%
Morph. Type: Flat
Elem. Type: Valley flat
Slope: 2.5 %
Pattern Type: Low hills
Relief: No Data
Slope Category: Very gently sloped
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Self-Mulching Black Vertosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Ug5.16
Great Soil Group: Black earth

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.13 m	Very dark brown (10YR2/2-Moist); ; Medium clay; Weak grade of structure, Granular; Moderately moist; Weak consistence; Diffuse change to -
AB	0.13 - 0.25 m	Black (10YR2/1-Moist); ; Medium clay; Massive grade of structure; Moist; Moderately plastic; Normal plasticity; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Diffuse change to -
AB	0.28 - 0.41 m	Black (10YR2/1-Moist); ; Medium clay; 20-50 mm, Angular blocky; Moist; Moderately plastic; Normal plasticity; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Diffuse change to -
B	0.41 - 0.53 m	Very dark grey (10YR3/1-Moist); ; Medium clay; 20-50 mm, Angular blocky; Moist; Moderately plastic; Normal plasticity; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Diffuse change to -
B	0.56 - 0.69 m	Very dark greyish brown (2.5Y3/2-Moist); ; Medium clay; , Angular blocky; , Granular; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, Basalt, coarse fragments; Few (2 - 10 %), Manganiferous, Fine (0 - 2 mm), Concretions; Diffuse, Irregular change to -
B	0.71 - 0.79 m	Dark brown (7.5YR3/2-Moist); ; Medium clay; , Angular blocky; , Granular; Moist; Weak consistence; Sharp change to -
B	0.89 - 1.02 m	Dark greyish brown (2.5Y4/3-Moist); ; Medium clay; , Angular blocky; , Granular; Moist; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Diffuse change to -
BC	1.02 - 1.19 m	Light olive brown (2.5Y5/4-Moist); ; Medium clay; , Angular blocky; , Granular; Moist; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Diffuse change to -
C	1.42 - 1.55 m	Olive (5Y5/4-Moist); ; Medium clay; Moist; 2-10%, Basalt, coarse fragments; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Concretions; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Concretions;

Morphological Notes

Observation Notes

>155CM ON BASALT WITH GRAVEL AND CARBONATES:AT 91CM <10% CONCRETIONS OFLIME <6MM WHILST DIGGING PIT:kornhill series:

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Site Notes
PEMBROKE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.13	6.2A		15.5H	15.2	0.18	2.1	8.3H 15.9E		49B	
0.13 - 0.25	6.8A							45.5C		
0.28 - 0.41	7.3A		19.3H	28	0.4	5.6	7.7E		61B	
0.41 - 0.53	8A							59.5C		
0.56 - 0.69	8.4A									
0.71 - 0.79	8.4A		18.4H	33.4	0.46	7.9			60.2B	
0.89 - 1.02	8.7A									
1.02 - 1.19	8.6A									
1.42 - 1.55	9.1A									

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.13		2.7D		0.027D	0.29A			0	2D	29	28	36
0.13 - 0.25		1.6D		0.016D	0.191A							
0.28 - 0.41		1.2D			0.164A			0	2D	20	24	55
0.41 - 0.53	0.02A	1D										
0.56 - 0.69	0.03A											
0.71 - 0.79	0.05A	0.5D						0	<1B	14	18	66
0.89 - 1.02	0.07A											
1.02 - 1.19	0.06A											
1.42 - 1.55	35A											

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
0 - 0.13										
0.13 - 0.25										
0.28 - 0.41										
0.41 - 0.53										
0.56 - 0.69										
0.71 - 0.79										
0.89 - 1.02										
1.02 - 1.19										
1.42 - 1.55										

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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 (Ca2+,Mg2+,Na+,K+) 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)
19A1	Carbonates - rapid titration
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