Project Name: TAM
Project Code: TAM **Site ID:** H256 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock
Locality: 3.6KM SW of Beaconsfield:4CH on 217degrees from corner of fences on 86degrees and 356degrees respectively:
Date Desc.: 22/05/63
Elevation: 122 metres
Map Ref.:
Rainfall: 940
Northing/Long.: 146.798611111111
Runoff: Slow
Easting/Lat.: -41.2291666666667
Drainage: Rapidly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Soil pit, 1.2 m deep,Serpentinite

Land Form

Rel/Slope Class: No Data
Pattern Type: Hills
Morph. Type: Flat
Relief: No Data
Elem. Type: Hillcrest
Slope Category: Level
Slope: 0 %
Aspect: No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Mottled Mesotrophic Red Chromosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn2.14
Great Soil Group: Red earth

Site Disturbance: Limited clearing, for example selective logging

Vegetation: Low Strata - Fern, , . *Species includes - None recorded
Mid Strata - Tree, , . *Species includes - Casuarina suberosa
Tall Strata - Tree, , . *Species includes - Eucalyptus obliqua, Eucalyptus viminalis

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.025 m	Black (5YR2/1-Moist); ; Loam; Weak grade of structure, <2 mm, Granular; Moist; Very weak consistence; 20-50%, Gravel, coarse fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Common, fine (1-2mm) roots; Gradual change to -
	0.025 - 0.08 m	Reddish brown (5YR4/4-Moist); ; Clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Very weak consistence; 20-50%, Gravel, coarse fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Common, fine (1-2mm) roots; Gradual change to -
	0.08 - 0.13 m	Dark red (2.5YR3/6-Moist); ; Clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Very weak consistence; 2-10%, Gravel, coarse fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Few, coarse (>5mm) roots; Diffuse change to -
	0.13 - 0.18 m	Dark red (2.5YR3/6-Moist); ; Clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Weak consistence; 2-10%, Gravel, coarse fragments; Few, fine (1-2mm) roots; Diffuse change to -
	0.18 - 0.33 m	Dark red (2.5YR3/6-Moist); ; Light clay; Weak grade of structure, 2-5 mm, Subangular blocky; Weak consistence; 2-10%, Gravel, coarse fragments; FewDiffuse change to -
	0.33 - 0.48 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Weak grade of structure, 2-5 mm, Subangular blocky; Rough-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; 2-10%, Gravel, coarse fragments; Few cutans, <10% of ped faces or walls coated; FewDiffuse change to -
	0.48 - 0.58 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Weak grade of structure, 2-5 mm, Subangular blocky; Many (>5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; 2-10%, Gravel, coarse fragments; Diffuse change to -
	0.58 - 0.74 m	Dark red (2.5YR3/6-Moist); , 2.5YR48; Medium clay; Weak grade of structure, 2-5 mm, Subangular blocky; Many (>5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; 2-10%, Gravel, coarse fragments; Diffuse change to -

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0.74 - 0.86 m	Dark red (2.5YR3/6-Moist); , 2.5YR48; Medium clay; Weak grade of structure, 2-5 mm, Subangular blocky; Weak consistence; 2-10%, Gravel, coarse fragments; Clear change to -
0.86 - 1.04 m	Dark red (2.5YR3/6-Moist); , 7.5YR46; , 10YR56; Medium clay; Massive grade of structure; Strong consistence; 2-10%, Gravel, coarse fragments;
1.04 - 1.19 m	Dark red (2.5YR3/6-Moist); , 7.5YR46; , 10YR56; Medium clay; Massive grade of structure; Very strong consistence; 20-50%, coarse gravelly, 20-60mm, Substrate material, coarse fragments;

Morphological Notes

Observation Notes

>119CM ON HAEMATITE:SURFACE OUTCROPS OF CONCRETIONARY LATERITE:

Site Notes

BEACONSFIELD

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.025	6A	0.08C	8.9H	3.2	0.38	0.41	21.9E		34.8B	
0.025 - 0.08	6.3A	0.039A	2.2H	0.8	0.16	0.13	7.4E		10.7B	
0.08 - 0.13	6.3A	0.036A								
0.13 - 0.18	6.5A	0.03A	1.5H	0.77	0.15	0.12	5.4E		7.94B	
0.18 - 0.33	6.5A	0.03A								
0.33 - 0.48	6.3A	0.039A	2.1H	3	0.24	0.26	11.1E		16.7B	
0.48 - 0.58	6.2A	0.039A								
0.58 - 0.74	6.2A	0.036A								
0.74 - 0.86	6.2A	0.042A	1.4H	4.9	0.14	0.48	13.8E		20.7B	
0.86 - 1.04	6.2A	0.045A								
1.04 - 1.19	6A	0.045A								

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 - 0.025		6.94D		0.016D	0.248A			65	17B	37	24	11
0.025 - 0.08		1.61D		0.011D	0.059A			33	20B	39	26	12
0.08 - 0.13		0.88D			0.041A			17	16D	44	30	11
0.13 - 0.18		0.76D			0.038A			19	17D	39	26	17
0.18 - 0.33		0.99D			0.05A			15	12D	30	19	39
0.33 - 0.48								10	12D	20	14	55
0.48 - 0.58												
0.58 - 0.74												
0.74 - 0.86								12	7D	12	15	64
0.86 - 1.04												
1.04 - 1.19												

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 - 0.025										
0.025 - 0.08										
0.08 - 0.13										
0.13 - 0.18										
0.18 - 0.33										
0.33 - 0.48										
0.48 - 0.58										
0.58 - 0.74										
0.74 - 0.86										
0.86 - 1.04										
1.04 - 1.19										

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Laboratory Analyses Completed for this profile

12_HCL_FE	Total element - Fe(%) - Total acid(HCl) extractable Fe
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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
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
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
3A1	EC of 1:5 soil/water extract
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