Project Name: LON
Project Code: LON **Site ID:** H88 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By:	J. Loveday	**Locality:**	21km SE of Evandale:
Date Desc.:	23/02/54	**Elevation:**	229 metres
Map Ref.:	Sheet No. : 8314 1:100000	**Rainfall:**	530
Northing/Long.:	147.416666666667	**Runoff:**	Rapid
Easting/Lat.:	-41.7166666666667	**Drainage:**	Moderately well drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	Auger boring, 1.7 m deep,Dolerite

Land Form

Rel/Slope Class:	Gently undulating plains <9m 1-3%	**Pattern Type:**	Plateau
Morph. Type:	Flat	**Relief:**	No Data
Elem. Type:	Plain	**Slope Category:**	Very gently sloped
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Mesotrophic Red Kandosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Dr3.51
Great Soil Group: Krasnozem

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

Vegetation: Low Strata - Sod grass, 0.26-0.5m, Very sparse. *Species includes - Danthonia species
Tall Strata - Tree, 12.01-20m, Isolated plants. *Species includes - Eucalyptus ovata

Surface Coarse Fragments: 2-10%, bouldery, 600mm-2m, , Dolerite

Profile Morphology

A1	0 - 0.08 m	Dark reddish brown (5YR3/4-Moist); ; Clay loam; Weak grade of structure, Granular; Moderately moist; Very weak consistence; Few (2 - 10 %), Ferruginous, , Concretions; Diffuse change to -
	0.08 - 0.16 m	Dark reddish brown (2.5YR3/4-Moist); ; Clay loam; Weak grade of structure, Granular; Weak consistence; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), ; Sharp, Irregular change to -
AB	0.18 - 0.33 m	Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Massive grade of structure; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Firm consistence; Many (20 - 50 %), Ferruginous, , ; Diffuse change to -
B	0.36 - 0.51 m	Dark red (2.5YR3/6-Moist); , 10YR56, 2-10% ; , 2-10% ; Medium clay; Massive grade of structure; Few (<1 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Few (2 - 10 %), Ferruginous, , ; Diffuse change to -
	0.51 - 0.69 m	Red (2.5YR4/7-Moist); ; Medium clay; Massive grade of structure; Weak consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), , , ; Diffuse change to -
	0.71 - 0.81 m	Red (2.5YR4/7-Moist); , 10YR56; , 10YR66; Medium clay; Massive grade of structure; Weak consistence; 0-2%, Gravel, coarse fragments; Diffuse change to -
	0.84 - 1.02 m	Reddish brown (2.5YR4/4-Moist); , 10YR81; , 10YR66; Medium clay; Massive grade of structure;
BC	1.17 - 1.27 m	Yellowish brown (10YR5/6-Moist); , 10YR53; , 2.5YR44; Heavy clay; Moist; Weak consistence;
C	1.37 - 1.52 m	Yellowish brown (10YR5/6-Moist); , 10YR53; , 10YR81; Firm consistence; 0-2%, Gravel, coarse fragments;

Morphological Notes

Observation Notes

137-152CM MEALY W`D DR WITH <10% POCKETS OF MOIST PLASTIC CLAY:36-69CM AGGREGATES HAVE bG STAINING: CAMPBELTON SERIES:

Site Notes

LONGFORD

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Cmol (+)/kg							%
0 - 0.08	5.9A		7.6H	2.9	0.17	0.29	10.7H		28.6B	
							17.6E			
0.08 - 0.16	6A							18.5C		
0.18 - 0.33	5.6A		3.8H	1.8	0.05	0.21	7.7H		19.5B	
							13.6E			
0.36 - 0.51	5.5A							11C		
0.51 - 0.69	5.4A		1.5H	3.6	0.05	0.35	6.2H		16B	
							10.5E			
0.71 - 0.81	5.4A									
0.84 - 1.02	5.5A							15C		
1.17 - 1.27	5.4A									
1.37 - 1.52	5.2A									

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 - 0.08		2.8D		0.046D	0.244A			25	15B	32	23	21
0.08 - 0.16		2.2D		0.041D	0.18A			28	11D	29	28	21
0.18 - 0.33		1D		0.035D	0.063A			29	25B	31	19	19
0.36 - 0.51		0.3D			0.023A							
0.51 - 0.69				0.025D				0	4D	10	8	76
0.71 - 0.81												
0.84 - 1.02												
1.17 - 1.27												
1.37 - 1.52												

Depth	COLE	Gravimetric/Volumetric Water Contents Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	K sat	K unsat
m		g/g - m3/m3							mm/h	mm/h
0 - 0.08										
0.08 - 0.16										
0.18 - 0.33										
0.36 - 0.51										
0.51 - 0.69										
0.71 - 0.81										
0.84 - 1.02										
1.17 - 1.27										
1.37 - 1.52										

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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
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)
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
XRD_C_Hm	Hematite - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction