Project Name: CAN
Project Code: CAN **Site ID:** CP241 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P.H. Walker **Locality:** CSIRO Ginninderra Experimental Station, Hall
Date Desc.: 14/03/85 **Elevation:** 600 metres
Map Ref.: Sheet No. : 049569 1:50000 **Rainfall:** No Data
Northing/Long.: 149.0472222 **Runoff:** No Data
Easting/Lat.: -35.1619444 Datum: AGD66 **Drainage:** No Data

Geology

ExposureType: No Data **Conf. Sub. is Parent. Mat.:** No Data
Geol. Ref.: No Data **Substrate Material:** Quartz porphyry

Landform

Rel/Slope Class: Gently undulating rises 9-30m 1-3% **Pattern Type:** No Data

Morph. Type: Crest **Relief:** No Data
Elem. Type: Hillcrest **Slope Category:** No Data
Slope: 0 % **Aspect:** No Data

Surface Soil Condition

Erosion

Soil Classification

Australian Soil Classification: N/A
ASC Confidence: Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: Dr2.43
Great Soil Group: Solodic soil

Site Disturbance

Vegetation

Surface Coarse Fragments

Profile Morphology

A1 0 - 0.08 m Dark brown (7.5YR3/2-Moist); Pinkish grey (7.5YR6/2-Dry); ; Loam; Massive grade of structure; Strong consistence; Clear change to -

A2 0.08 - 0.18 m Brown (7.5YR5/3-Moist); Pinkish grey (7.5YR7/2-Dry); ; Loam; Massive grade of structure; Strong consistence; Abrupt, Wavy change to -

B21 0.18 - 0.27 m Red (2.5YR4/6-Moist); Brown (7.5YR4/4-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Very strong consistence; Gradual change to -

B22 0.27 - 0.39 m Red (2.5YR4/6-Moist); Yellowish red (5YR5/6-Dry); ; Heavy clay; Massive grade of structure; Very strong consistence; Gradual change to -

B31 0.39 - 0.6 m Red (2.5YR4/6-Moist); Yellowish brown (10YR5/6-Dry); ; Heavy clay; Massive grade of structure; Very strong consistence; Gradual change to -

B32 0.6 - 0.72 m Red (2.5YR4/6-Moist); Yellowish brown (10YR5/6-Dry); ; Heavy clay; Massive grade of structure; Very strong consistence; Gradual change to -

B33 0.72 - 0.82 m Yellowish red (5YR4/6-Moist); Yellowish brown (10YR5/6-Dry); ; Medium clay; Massive grade of structure; Very strong consistence; Gradual change to -

C1 0.82 - 1 m Light yellowish brown (2.5Y6/4-Moist); Dusky red (2.5YR3/2-Moist); ; Clay loam; Massive grade of structure; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; , , , ; Clear, Irregular change to -

C2 1.05 - 1.3 m Light brownish grey (2.5Y6/2-Moist); Dusky red (2.5YR3/2-Moist); ; Massive grade of structure; Weak consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Diffuse change to -

C3	1.3 - 1.5 m	Light brownish grey (2.5Y6/3-Moist); Reddish yellow (5YR6/8-Moist); ; Massive grade of structure; Weak consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Diffuse change to -
C4	1.5 - 1.75 m	Light brownish grey (2.5Y6/3-Moist); Reddish yellow (5YR6/8-Moist); ; Massive grade of structure; Weak consistence;

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C5 1.75 - 2 m Light brownish grey (2.5Y6/3-Moist); Reddish yellow (5YR6/8-Moist); ; Massive grade of structure;
Weak consistence;

Morphological Notes

A1 1 cm root mat on surface discarded
A2 wavy lower boundary to B horizon; A horizon depth 11 to 24 cm
B21 pronounced cracks 18-80 cm; 20-30 cm apart and 1 cm wide; first colour in peds, second colour
ped surface.
B22 pronounced cracks 18-80 cm; 20-30 cm apart and 1 cm wide.
B31 major slickenside surfaces
B32 major slickenside surfaces
B33 major slickenside surfaces
C1 Clear and irregular trans. to weathered rock; many fracture plans and cutans; some feltspars; first
colour weathered rock, second colour cutans
C2 Clear and irregular trans. to weathered rock; many fracture plans and cutans; some feltspars; first
colour weathered rock, second colour cutans
C3 Clear and irregular trans. to weathered rock; many fracture plans and cutans; some feltspars; Mn
stainings abundant; first colour weathered rock, second colour cutans
C4 abundant fractures in weathered rock with feltspars, quartz, Mn stains; first colour weathered
rock, second colour cutans. Sl. Soft CO3 in veins, pockets.
C5 abundant fractures in weathered rock with feltspars, quartz, Mn stains; first colour weathered
rock, second colour cutans. Cl. Veins of CO3 2 cm thick.

Observation Notes

Site Notes

Volunteer grassland. External drainage good, internal drainage probably seasonally restricted. Gently undulaintg hill country, crest of borad
hill top. Relief 10 m to nearest creek.

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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	5.5A	0.1A	4F	1.5	1	0.03				
0.08 - 0.18	5.6A	0.03A	1.2F	0.9	0.64	0.02				
0.18 - 0.27	6.2A	0.03A	7.2F	10.6	2.5	0.18				
0.27 - 0.39	6.6A	0.03A	6.5F	11.6	2	0.26				
0.39 - 0.6	7.2A	0.03A	6.9F	13.8	1.4	0.42				
0.6 - 0.72	7.8A	0.06A	7.3F	14.7	0.81	0.58				
0.72 - 0.82	8.1A	0.09A								
0.82 - 1	9.1A	0.14A								
1.05 - 1.3	8.8A	0.05A	6.4F	11	0.19	0.89				
1.3 - 1.5	9A	0.4A	5.3F	11.2	0.11	1.2				
1.5 - 1.75	9.6A	0.18A								
1.75 - 2	9.7A	0.21A								

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		3.59A									

0.08 - 0.18		0.66A
0.18 - 0.27		0.7A
0.27 - 0.39		0.49A
0.39 - 0.6		0.32A
0.6 - 0.72		0.33A
0.72 - 0.82	0.37B	0.19A
0.82 - 1	2.38B	0.08A
1.05 - 1.3	0.09B	
1.3 - 1.5	0.08B	0.02A
1.5 - 1.75		
1.75 - 2		0.02A

Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15D1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_K	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_MG	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_NA	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15I4	CEC measurement - titration of ammonium and chloride ions
19B1	Carbonates - manometric
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6A1	Organic carbon - Walkley and Black
P10_S_0.20	0.20 micron (cumulative %) - Sedigraph
P10_S_1000	1000 micron (cumulative %) - Sedigraph
P10_S_125	125 micron (cumulative %) - Sedigraph

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P10_S_15.6	15.6 micron (cumulative %) - Sedigraph
P10_S_2	2 micron (cumulative %) - Sedigraph
P10_S_2000	2000 micron (cumulative %) - Sedigraph
P10_S_250	250 micron (cumlative %) - Sedigraph
P10_S_3.9	3.9 micron (cumulative %) - Sedigraph
P10_S_31.2	31.2 micron (cumulative %) - Sedigraph
P10_S_500	500 micron (cumulative %) - Sedigraph
P10_S_63	63 micron (cumulative %) - Sedigraph