Project Name: LSG
Project Code: LSG **Site ID:** CP68 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P.H. Walker	**Locality:**	C'berra 1:50.OOO:181425
Date Desc.:	//	**Elevation:**	600 metres
Map Ref.:	Sheet No. : 8727 1:100000	**Rainfall:**	640
Northing/Long.:	149.174444444444	**Runoff:**	Slow
Easting/Lat.:	-35.2916666666667	**Drainage:**	Well drained

Geology

ExposureType:	No Data	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Undulating plains <9m 3-10%	**Pattern Type:**	Alluvial fan
Morph. Type:	Flat	**Relief:**	No Data
Elem. Type:	Fan	**Slope Category:**	Gently inclined
Slope:	4 %	**Aspect:**	120 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Eutrophic Brown Kandosol

ASC Confidence:
No analytical data are available but confidence is fair.

Mapping Unit: N/A
Principal Profile Form: Dy
Great Soil Group: Red podzolic soil

Site Disturbance: No effective disturbance. Natural

Vegetation:
Tall Strata - Tree, , . *Species includes - Eucalyptus species

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.07 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam; Massive grade of structure; Moist; Weak consistence; Field pH 7 (pH meter); Clear change to -
A2	0.07 - 0.1 m	Brown (10YR4/3-Moist); ; Sandy loam; Massive grade of structure; Moist; Very weak consistence; Field pH 6.6 (pH meter); Clear change to -
A2	0.1 - 0.2 m	Brown (10YR4/3-Moist); Light yellowish brown (10YR6/4-Dry); ; Sandy loam; Massive grade of structure; Moist; Very weak consistence; 0-2%, coarse gravelly, 20-60mm, dispersed, Gravel, coarse fragments; Field pH 6.6 (pH meter); Clear change to -
B1	0.2 - 0.3 m	Strong brown (7.5YR4/5-Moist); ; Sandy clay loam; Weak grade of structure, 5-10 mm, Subangular blocky; Moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm, dispersed, Gravel, coarse fragments; Field pH 6.6 (pH meter); Clear change to -
B1	0.3 - 0.4 m	Brown (7.5YR4/4-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Subangular blocky; Moist; Very firm consistence; 2-10%, coarse gravelly, 20-60mm, dispersed, Gravel, coarse fragments; Field pH 6.7 (pH meter); Clear change to -
B2	0.4 - 0.5 m	Dark yellowish brown (10YR4/4-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Firm consistence; 2-10%, coarse gravelly, 20-60mm, dispersed, Gravel, coarse fragments; Field pH 7 (pH meter); Abrupt change to -
B2	0.5 - 0.6 m	Yellowish brown (10YR5/5-Moist); , 2.5YR46, 0-2% ; , 0-2% ; Light clay; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Very firm consistence; 2-10%, coarse gravelly, 20-60mm, dispersed, Gravel, coarse fragments; Field pH 7.1 (pH meter); Gradual change to -
B3	0.6 - 0.7 m	Olive brown (2.5Y4/4-Moist); , 2.5YR46, 2-10% ; , 2-10% ; Medium heavy clay; Weak grade of structure, 10-20 mm, Subangular blocky; Dry; Very firm consistence; 0-2%, fine gravelly, 2-6mm, dispersed, Gravel, coarse fragments; Field pH 7.1 (pH meter); Gradual change to -
B3	0.7 - 0.8 m	Olive brown (2.5Y4/4-Moist); , 2.5YR46, 2-10% ; , 2-10% ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Dry; Very firm consistence; 0-2%, fine gravelly, 2-6mm, dispersed, Gravel, coarse fragments; Field pH 7.1 (pH meter); Gradual change to -

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B3C	0.8 - 0.9 m	Olive brown (2.5Y4/5-Moist); , 2.5Y32, 20-50% ; , 2.5Y46, 20-50% ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; 0-2%, dispersed, Gravel, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, , ; Field pH 7.3 (pH meter); Gradual change to -
B3C	0.9 - 1 m	Olive brown (2.5Y4/5-Moist); , 2.5Y32, 20-50% ; , 2.5Y46, 20-50% ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Dry; Very firm consistence; 0-2%, dispersed, Gravel, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, , ; Field pH 7.5 (pH meter); Clear change to -
	1 - 1.1 m	Yellowish brown (10YR5/6-Moist); , 2.5Y60, 20-50% ; , 20-50% ; Light clay; Weak grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 0-2%, coarse gravelly, 20-60mm, dispersed, Gravel, coarse fragments; Field pH 7.3 (pH meter); Clear change to -
AB	1.1 - 1.2 m	Yellowish brown (10YR5/6-Moist); , 2.5Y60, 20-50% ; , 20-50% ; Medium heavy clay; Massive grade of structure; Dry; Very strong consistence; 10-20%, fine gravelly, 2-6mm, dispersed, Gravel, coarse fragments; Common (10 - 20 %), Ferromanganiferous, , ; Field pH 7.8 (pH meter); Clear change to -
AB	1.2 - 1.3 m	Very dark greyish brown (10YR3/2-Moist); , 10YR54, 2-10% ; , 2.5YR46, 2-10% ; Sandy clay loam; Massive grade of structure; Dry; Firm consistence; Many (20 - 50 %), Ferromanganiferous, , ; Field pH 7.9 (pH meter); Clear change to -
B	1.3 - 1.4 m	Very dark greyish brown (2.5Y3/2-Moist); ; , Ferromanganiferous, , ;

Morphological Notes

Observation Notes

0-10CM TRACE TO SLIGHT BIOTURBATION:

Site Notes

CAMPBELL

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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 - 0.07	7A	<0.04A	3.7K	4.2	0.19	0.25	5.5B	13.7J		1.82
0.07 - 0.1	6.6A	<0.04A								
0.1 - 0.2	6.6A	<0.04A	2.7K	2.3	0.22	0.27	6.6B	12.2J		2.21
0.2 - 0.3	6.6A	<0.04A								
0.3 - 0.4	6.7A	<0.04A	2.9K	3.3	0.31	0.17	5.5B	12.2J		1.39
0.4 - 0.5	7A	<0.04A								
0.5 - 0.6	7.1A	<0.04A	3.7K	4.8	0.3	0.25	6.3B	15.3J		1.63
0.6 - 0.7	7.1A	0.04A								
0.7 - 0.8	7.1A	0.05A	5.8K	11.8	0.61	0.55	9.9B	28.7J		1.92
0.8 - 0.9	7.3A	<0.04A								
0.9 - 1	7.5A	<0.04A								
1 - 1.1	7.3A	<0.04A								
1.1 - 1.2	7.8A	<0.04A	4.1K	8.2	0.33	0.42	3.9B	16.9J		2.49
1.2 - 1.3	7.9A	<0.04A								
1.3 - 1.4	7.9A	<0.04A								

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 - 0.07		0.57D			0.061B							
0.07 - 0.1		0.54D			0.039B							
0.1 - 0.2		0.46D			0.046B							
0.2 - 0.3		0.26D			0.032B							
0.3 - 0.4		0.29D			0.038B							
0.4 - 0.5		0.23D			0.032B							
0.5 - 0.6		0.22D			0.023B							
0.6 - 0.7		0.31D			0.046B							
0.7 - 0.8		0.34D			0.048B							
0.8 - 0.9		0.26D			0.027B							
0.9 - 1		0.2D										
1 - 1.1		0.19D										
1.1 - 1.2		0.1D										
1.2 - 1.3		0.06D										
1.3 - 1.4		0.12D										

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 - 0.07										
0.07 - 0.1										
0.1 - 0.2										
0.2 - 0.3										
0.3 - 0.4										
0.4 - 0.5										
0.5 - 0.6										
0.6 - 0.7										
0.7 - 0.8										
0.8 - 0.9										
0.9 - 1										

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1 - 1.1
1.1 - 1.2
1.2 - 1.3
1.3 - 1.4

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Laboratory Analyses Completed for this profile

13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CEC	CEC - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15G_C_AL1	Exchangeable aluminium - meq per 100g of soil - Aluminium By difference of C and A or B
2A1	Air-dry moisture content
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
7_NR	Total nitrogen (%) - Not recorded