Project Name: CAN
Project Code: CAN **Site ID:** CP122 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (VIC)

Site Information

Desc. By:	C.L. Watson	**Locality:**	Kalkee ~20KM north of Horsham
Date Desc.:	11/10/78	**Elevation:**	150 metres
Map Ref.:	Sheet No. : 7324 1:100000	**Rainfall:**	440
Northing/Long.:	142.266666666667	**Runoff:**	No Data
Easting/Lat.:	-36.5166666666667	**Drainage:**	Imperfectly drained

Geology

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

Land Form

Rel/Slope Class:	Level plain <9m <1%	**Pattern Type:**	Alluvial plain
Morph. Type:	Flat	**Relief:**	No Data
Elem. Type:	Plain	**Slope Category:**	Level
Slope:	<1 %	**Aspect:**	No Data

Surface Soil Condition (dry): Soft, Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Episodic-Epicalcareous Self-Mulching Grey Vertosol

ASC Confidence:
Analytical data are incomplete but reasonable confidence.

Mapping Unit: N/A
Principal Profile Form: Ug5.24
Great Soil Group: Grey clay

Site Disturbance:

Vegetation: Low Strata - Sod grass, <0.25m, . *Species includes - None recorded

Surface Coarse Fragments:

Profile Morphology

0 - 0.03 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Strong grade of structure, <2 mm, Granular; Very weak consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Sharp change to -
0.03 - 0.1 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Weak consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 8 (pH meter); Gradual change to -
0.1 - 0.2 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Weak consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter);
0.2 - 0.35 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Weak consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);
0.35 - 0.4 m	Dark grey (10YR4/1-Moist); , 10YR52, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9.1 (pH meter);
0.4 - 0.5 m	Dark grey (10YR4/1-Moist); , 10YR52, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9.2 (pH meter);
0.5 - 0.6 m	Dark grey (10YR4/1-Moist); , 10YR52, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9.3 (pH meter);
0.6 - 0.7 m	Pale brown (10YR6/3-Moist); , 10YR41, 20-50% ; , 10YR64, 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.3 (pH meter);
0.7 - 0.8 m	Pale brown (10YR6/3-Moist); , 10YR41, 20-50% ; , 10YR64, 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.4 (pH meter);

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0.8 - 0.9 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 10YR41, 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.4 (pH meter);
0.9 - 1 m	Light yellowish brown (10YR6/4-Moist); , 10YR63, 20-50% ; , 10YR41, 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.3 (pH meter);
1 - 1.1 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.2 (pH meter);
1.1 - 1.2 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.2 (pH meter);
1.2 - 1.3 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.2 (pH meter);
1.3 - 1.4 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9 (pH meter);
1.4 - 1.5 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9.1 (pH meter);
1.5 - 1.6 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 9 (pH meter);
1.6 - 1.7 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.9 (pH meter);
1.7 - 1.8 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.9 (pH meter);
1.8 - 1.9 m	Pale brown (10YR6/3-Moist); , 10YR64, 20-50% ; , 20-50% ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.9 (pH meter);
1.9 - 2 m	;

Morphological Notes

Observation Notes

SOME SHINY SURFACES >3CM

Site Notes

HORSHAM

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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 - 0.03	8A	0.13C	26.6K	4.6	2.5	0.6	7.7B	42J		1.43
0.1 - 0.2	8.7A	0.17C								
0.2 - 0.3	9A	0.21C								
0.3 - 0.4	9.1A	0.31C								
0.4 - 0.5	9.2A	0.39C								
0.5 - 0.6	9.3A	0.43C								
0.6 - 0.7	9.3A	0.55C								
0.7 - 0.8	9.4A	0.69C								
0.8 - 0.9	9.4A	0.82C								
0.9 - 1	9.3A	0.9C								
1.1 - 1.1	9.2A	1.1C								
1.1 - 1.2	9.2A	1.3C								
1.2 - 1.3	9.2A	1.3C								
1.3 - 1.4	9A	1.5C								
1.4 - 1.5	9.1A	1.6C								
1.5 - 1.6	9A	1.7C								
1.6 - 1.7	8.9A	1.8C								
1.7 - 1.8	8.9A	1.9C								
1.8 - 1.9	8.9A	2.1C								
1.9 - 2	8.8A	2.2C								

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 - 0.03	0.51A	1D							16D	19	10	51
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												
1.1 - 1.1												
1.1 - 1.2												
1.2 - 1.3												
1.3 - 1.4												
1.4 - 1.5												
1.5 - 1.6												
1.6 - 1.7												
1.7 - 1.8												
1.8 - 1.9												
1.9 - 2												

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 - 0.03							0.2B		

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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
1.1 - 1.1
1.1 - 1.2
1.2 - 1.3
1.3 - 1.4
1.4 - 1.5
1.5 - 1.6
1.6 - 1.7
1.7 - 1.8
1.8 - 1.9
1.9 - 2

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Laboratory Analyses Completed for this profile

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
19A1	Carbonates - rapid titration
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
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
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
P3B_GV_15	15 BAR Moisture g/g - Gravimetric using pressure plate