Project Name: CAN
Project Code: CAN **Site ID:** CP145 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By:	G.A. Stewart	**Locality:**	Trangie Agricultural Research Station block 2 irrigated field
Date Desc.:	09/06/79	**Elevation:**	225 metres
Map Ref.:	Sheet No. : SH8434 1:100000	**Rainfall:**	640
Northing/Long.:	147.95	**Runoff:**	Very slow
Easting/Lat.:	-31.9833333333333	**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:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry): Self-mulching, Recently cultivated

Erosion:

Soil Classification

Australian Soil Classification:
Epicalcareous-Epihypersodic Self-Mulching Black Vertosol
ASC Confidence:
Analytical data are incomplete but reasonable confidence.

Mapping Unit: N/A
Principal Profile Form: Ug5.25
Great Soil Group: Grey clay

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

0 - 0.05 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Strong grade of structure, <2 mm, Granular; Weak consistence; Moderately plastic; Non-sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter);
0.05 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Moderately plastic; Non-sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter);
0.1 - 0.2 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Moderately plastic; Non-sticky; Very many (50 - 100 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter);
0.2 - 0.3 m	Very dark greyish brown (10YR3/2-Moist); , 7.5YR43, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Very many (50 - 100 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter);
0.3 - 0.4 m	Very dark greyish brown (10YR3/2-Moist); , 7.5YR43, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Very many (50 - 100 %), Calcareous, , Concretions; Field pH 8.8 (pH meter);
0.4 - 0.5 m	Very dark greyish brown (10YR3/2-Moist); , 7.5YR43, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);
0.5 - 0.6 m	Very dark greyish brown (10YR3/2-Moist); , 7.5YR43, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);
0.6 - 0.7 m	Brown (7.5YR4/4-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 9.1 (pH meter);
0.7 - 0.8 m	Brown (7.5YR4/4-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 9.1 (pH meter);

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0.8 - 0.9 m	Brown (7.5YR4/4-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Concretions; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.9 (pH meter);
0.9 - 1 m	Brown (7.5YR4/4-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.2 (pH meter);
1 - 1.1 m	Brown (7.5YR4/4-Moist); , 7.5YR46, 0-2% ; , 0-2% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.4 (pH meter);
1.1 - 1.2 m	Brown (7.5YR4/4-Moist); , 7.5YR46, 2-10% ; , 2-10% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.6 (pH meter);
1.2 - 1.3 m	Brown (7.5YR4/4-Moist); , 7.5YR46, 2-10% ; , 2-10% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.8 (pH meter);
1.3 - 1.4 m	Brown (7.5YR4/4-Moist); , 7.5YR46, 10-20% ; , 10-20% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Concretions; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.7 (pH meter);
1.4 - 1.5 m	Brown (7.5YR4/4-Moist); , 7.5YR46, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.8 (pH meter);
1.5 - 1.6 m	Brown (7.5YR4/4-Moist); , 7.5YR46, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.8 (pH meter);
1.6 - 1.7 m	Strong brown (7.5YR4/6-Moist); , 7.5YR44, 20-50% ; , 20-50% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.8 (pH meter);
1.7 - 1.8 m	Strong brown (7.5YR4/6-Moist); , 7.5YR44, 2-10% ; , 2-10% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.8 (pH meter);
1.8 - 1.9 m	Strong brown (7.5YR4/6-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Very plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.7 (pH meter);

Morphological Notes

Observation Notes

Site Notes

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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 - 0.05	8.6A	0.17A	20.8K	7.6	1.3	1	3.8B	34.5J		2.90
0.05 - 0.1	8.6A	0.18A								
0.1 - 0.2	8.7A	0.21A								
0.2 - 0.3	8.8A	0.26A								
0.3 - 0.4	9A	0.3A								
0.4 - 0.5	9A	0.37A								
0.5 - 0.6	9.1A	0.44A								
0.6 - 0.7	9.1A	0.51A								
0.7 - 0.8	8.9A	0.68A								
0.8 - 0.9	8.2A	1.8A								
0.9 - 1	8.4A	1.5A								
1 - 1.1	8.6A	1.4A								
1.1 - 1.2	8.8A	1.2A								
1.2 - 1.3	8.7A	1.3A								
1.3 - 1.4	8.8A	1.3A								
1.4 - 1.5	8.8A	1.3A								
1.5 - 1.6	8.8A	1.4A								
1.6 - 1.7	8.8A	1.4A								
1.7 - 1.8	8.7A	1.6A								
1.8 - 1.9	8.7A	1.7A								

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 - 0.05	3.67A	0.81D							10D	25	12	49
0.05 - 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												
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												

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 - 0.05								0.18B		

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0.05 - 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
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

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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
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
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