

**Project Name:** CAN  
**Project Code:** CAN      **Site ID:** CP117      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (NSW)

**Site Information**

<b>Desc. By:</b>	C.L. Watson	<b>Locality:</b>	~6KM East of Cryon along Burren Junction Road then turn off to Rayleigh
<b>Date Desc.:</b>	02/09/78	<b>Elevation:</b>	160 metres
<b>Map Ref.:</b>	Sheet No. : 8637 1:100000	<b>Rainfall:</b>	500
<b>Northing/Long.:</b>	148.683333333333	<b>Runoff:</b>	Very slow
<b>Easting/Lat.:</b>	-30.0333333333333	<b>Drainage:</b>	Imperfectly drained

**Geology**

<b>Exposure Type:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

**Land Form**

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Alluvial plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Level
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Episodic-Epicalcareous Self-Mulching Brown Vertosol		<b>Principal Profile Form:</b>	Ug5.34
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Grey clay
All necessary analytical data are available.			

**Site Disturbance:**

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

0 - 0.1 m	Dark brown (10YR3/3-Moist); , 10YR43, 20-50% ; , 20-50% ; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Very weak consistence; Moderately plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.2 (pH meter);
0.1 - 0.2 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter);
0.2 - 0.3 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.9 (pH meter);
0.3 - 0.4 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);
0.4 - 0.5 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 9 (pH meter);
0.5 - 0.6 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);
0.6 - 0.7 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 8.9 (pH meter);
0.7 - 0.8 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.8 (pH meter);
0.8 - 0.9 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 5-10 mm; Firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Few (2 - 10 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 7.9 (pH meter);

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0.9 - 1 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 5-10 mm; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Few (2 - 10 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 7.8 (pH meter);
1 - 1.1 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.1 (pH meter);
1.1 - 1.2 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.1 (pH meter);
1.2 - 1.3 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 7.9 (pH meter);
1.3 - 1.4 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8 (pH meter);
1.4 - 1.5 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 8.4 (pH meter);
1.5 - 1.6 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.3 (pH meter);
1.6 - 1.7 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 8.4 (pH meter);
1.7 - 1.8 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.2 (pH meter);
1.8 - 1.9 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 8.4 (pH meter);
1.9 - 2 m	Brown (10YR4/3-Moist); , 10YR53, 20-50% ; , 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.1 (pH meter);

#### **Morphological Notes**

#### **Observation Notes**

140-200CM BLACK STAINING ON FACES

#### **Site Notes**

CRYON

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol	(+)/kg			%
0 - 0.1	8.2A	0.12A	8.7K	4	2.5	1.6	4.3B	21.1J		7.58
0.1 - 0.2	8.7A	0.25A								
0.2 - 0.3	8.9A	0.26A								
0.3 - 0.4	9A	0.28A								
0.4 - 0.5	9A	0.35A								
0.5 - 0.6	9A	0.47A								
0.6 - 0.7	8.9A	0.68A								
0.7 - 0.8	8.8A	0.88A								
0.8 - 0.9	7.9A	2.9A								
0.9 - 1	7.8A	3.5A								
1 - 1.1	8.1A	2.4A								
1.1 - 1.2	8.1A	2.5A								
1.2 - 1.3	7.9A	2.7A								
1.3 - 1.4	8A	2.3A								
1.4 - 1.5	8.4A	1.7A								
1.5 - 1.6	8.3A	1.6A								
1.6 - 1.7	8.4A	1.5A								
1.7 - 1.8	8.2A	1.5A								
1.8 - 1.9	8.4A	1.5A								
1.9 - 2	8.1A	1.5A								

[illegible]

Depth m	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	mm/h	mm/h
0 - 0.1								0.13B		

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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 - 1.2  
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
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