Project Name: Hardsetting Soils

Project Code: HS Site ID: CP296 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: C.J. Chartres Locality: East-southeast of 'Yerong Creek'.

Date Desc.: Elevation: 01/01/92 No Data Map Ref.: Sheet No.: 8327 1:100000 Rainfall: No Data Northing/Long.: 6082608 AMG zone: 55 Runoff: No Data 509333 Datum: AGD66 Easting/Lat.: Drainage: No Data

<u>Geology</u>

ExposureType: Undisturbed soil core Conf. Sub. is Parent. Mat.: No Data Geol. Ref.: No Data Substrate Material: No Data

**Land Form** 

Rel/Slope Class: No Data

Morph. Type: Lower-slope
Elem. Type: Hillslope
Slope Category: No Data
Slope: %

Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Slope Category: 5 degrees

**Surface Soil Condition (dry):** 

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AN/APrincipal Profile Form:N/AASC Confidence:Great Soil Group:N/A

Confidence level not specified

Site <u>Disturbance:</u>

Vegetation:

**Surface Coarse Fragments:** 

**Profile Morphology** 

0 - 0.1 m Brown (10YR4/3-Moist); ; Silty loam; Weak grade of structure, <2 mm, Granular; Weak consistence; Many Yellowish brown (10YR5/4-Moist); ; Silty loam; Weak grade of structure, 5-10 mm, Subangular A2  $0.1 - 0.3 \, \text{m}$ blocky; Weak consistence; Common Yellowish brown (10YR5/6-Moist); Silty clay loam; Weak grade of structure, 5-10 mm, BA 0.3 - 0.45 m Subangular blocky; Weak consistence; Common B21t 0.45 - 0.65 m Yellowish brown (10YR5/6-Moist); , 2.5YR46, 10-20%, 5-15mm, Prominent; Silty clay loam; Weak grade of structure, 5-10 mm, Subangular blocky; Weak consistence; Few Yellowish brown (10YR5/6-Moist); , 2.5YR48, 20-50% , 5-15mm, Prominent; Silty clay; Weak B22t 0.65 - 1 m grade of structure, 10-20 mm, Subangular blocky; Firm consistence; Few B23t 1 - 1.5 m Strong brown (7.5YR5/6-Moist); , 10YR62, 20-50% , 15-30mm, Prominent; , 5YR58, 10-20% , 15-30mm, Distinct; Silty clay loam; Massive grade of structure; Firm consistence; 1.5 - 2 m Yellowish brown (10YR5/6-Moist); , 10YR62, 10-20% , 5-15mm, Prominent; , 5YR58, 10-20% , 5-15mm, Distinct; Silty clay loam; Massive grade of structure; Firm consistence; 2 - 2.6 m Yellowish brown (10YR5/6-Moist); , 10YR62, 10-20% , 5-15mm, Prominent; , 5YR58, 10-20% , 5-15mm, Prominent; Silty clay loam; Massive grade of structure; Firm consistence; 2.6 - 2.8 m Yellowish brown (10YR5/6-Moist); , 10YR62, 10-20% , 5-15mm, Prominent; , 5YR58, 10-20% ,

5-15mm, Prominent; Silty clay loam; Massive grade of structure; Firm consistence;

## **Morphological Notes**

A2 American system, horizon is E.
BA American system, horizon is BE.
B21t American system, horizon is Bt1.
B22t American system, horizon is Bt2.
B23t American system, horizon is Bt3.
Horizon not given, called sample 7.

Horizon not given, called sample 8. Texture is a gravelly SiCL. Horizon not given, called sample 9. Texture is a gravelly SiCL.

**Observation Notes** 

**Hardsetting Soils** 

Project Name: Project Code: Agency Name: HS Site ID: CP296 CSIRO Division of Soils (ACT) Observation ID: 1

Soil Taxonomy Typic Palexeralf, fine.

Site Notes

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Project Code: HS Site ID: CP296
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## Laboratory Test Results:

<u>Laboratory</u>	Test Re	<u>esults:</u>								
Depth	рН	1:5 EC		hangeable Mg	Cations K	Na E	Exchangeable Acidity	e CEC	ECEC	ESP
m		dS/m		9		Cmol (+)				%
0 - 0.1	5.13A	0.05A		0.2	0.26	0.04				
0.1 - 0.3	5.8A	0.03A	1.6E	0.26	0.25	0				
0.3 - 0.45 0.45 - 0.65	6.63A 6.8A	0.04A 0.05A		1.4 2.7	0.73	0.05				
0.45 - 0.65	7.12A	0.05A 0.05A		3.6	0.9 0.68	0.08 0.31				
1 - 1.5	7.12A 7.98A	0.05A		5.7	0.84	0.81				
1.5 - 2	8.44A	0.05A		5.7	0.04	0.01				
2 - 2.6	8.49A	0.07A								
2.6 - 2.8	8.67A	0.07A								
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density		icle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	<b>,</b>
0 - 0.1		0.99C							6D 55	
0.1 - 0.3		0.28C							7D 53	
0.3 - 0.45 0.45 - 0.65									4D 31	
0.45 - 0.65									4D 35	
1 - 1.5									4D 29	
1.5 - 2									10 20	
2 - 2.6										
2.6 - 2.8										
Depth	COLE			/imetric/Vo					K sat	K unsat
		Sat.	0.05 Bar		0.5 Bar	1 Bar	5 Bar	15 Bar		
m				g/	g - m3/m	3			mm/h	mm/h
0 - 0.1										
0.1 - 0.3										
0.3 - 0.45										
0.45 - 0.65										
0.65 - 1										
1 - 1.5										
1.5 - 2 2 - 2.6										
2.6 - 2.8										
2.0 2.0										

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## **Laboratory Analyses Completed for this profile**

13A1_AL 13A1_FE 13A1_MN 13A1_SI 13C1_AL 13C1_FE 13C1_SI 15C1_CA	Oxalate-extractable aluminium Oxalate-extractable iron Oxalate-extractable manganese Oxalate-extractable silicon Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
1514	CEC measurement - titration of ammonium and chloride ions
3A1 4A1	EC of 1:5 soil/water extract
6B3	pH of 1:5 soil/water suspension Total organic carbon - high frequency induction furnace, infrared
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS P10_PB_Z	Fine sand (%) - Plummet balance Silt (%) - Plummet balance
FIU_FD_Z	Silt (70) - Flutilitiet balance