

Project Name: Hardsetting Soils
Project Code: HS **Site ID:** CP289 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	C.J. Chartres	Locality:	Southeast of 'The Rock'.
Date Desc.:	01/01/92	Elevation:	No Data
Map Ref.:	Sheet No. : 8327 1:100000	Rainfall:	No Data
Northing/Long.:	6092600 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	512950 Datum: AGD66	Drainage:	No Data

Geology

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	Pattern Type:	No Data
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	%	Aspect:	45 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	N/A
		Great Soil Group:	N/A

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.08 m	Very dark brown (10YR2/2-Moist); ; Loam; Massive grade of structure; Very strong consistence; Many
AB1	0.08 - 0.32 m	Yellowish brown (10YR5/4-Moist); ; 10YR42, 10-20% , 0-5mm, Distinct; ; 10YR56, 10-20% , 0-5mm, Distinct; Clay loam; Weak grade of structure, 50-100 mm, Prismatic; Massive grade of structure; Rigid consistence; Many
AB2	0.32 - 0.44 m	Brown (10YR4/3-Moist); ; 10YR42, 10-20% , 0-5mm, Faint; ; 10YR56, 10-20% , 0-5mm, Faint; Clay loam; Weak grade of structure, 50-100 mm, Prismatic; Massive grade of structure; Rigid consistence; Common
B21t	0.44 - 0.68 m	Yellowish brown (10YR5/4-Moist); ; Clay loam; Moderate grade of structure, 50-100 mm, Prismatic; Weak grade of structure, 20-50 mm, Subangular blocky; Rigid consistence; Common
B22t	0.68 - 1.1 m	Yellowish brown (10YR5/4-Moist); ; Clay loam; Moderate grade of structure, 50-100 mm, Prismatic; Weak grade of structure, 20-50 mm, Subangular blocky; Rigid consistence; Few
B23t	1.1 - 1.35 m	Yellowish brown (10YR5/4-Moist); ; 10YR58, 2-10% , 5-15mm, Distinct; Silty clay; Weak grade of structure, 20-50 mm, Subangular blocky; Strong consistence; Few
B24t	1.35 - 1.7 m	Yellowish brown (10YR5/4-Moist); ; Silty clay; Weak grade of structure, 10-20 mm, Subangular blocky; Very firm consistence;
BC1	1.7 - 2 m	Yellowish brown (10YR5/6-Moist); ; Silty clay loam; Massive grade of structure; Very firm consistence;
BC2	2 - 2.5 m	Yellowish brown (10YR5/4-Moist); ; Silty clay loam; Massive grade of structure; Firm
BC3	2.5 - 2.75 m	Yellowish brown (10YR5/4-Moist); ; 10YR52, 10-20% , 5-15mm, Distinct; ; 10YR56, 10-20% , 5-15mm, Distinct; Silty clay loam; Massive grade of structure; Firm consistence;

Morphological Notes

A1	Dry consistence.
AB1	Dry consistence. Organic matter is mixed in 8-32cm horizon (25% A).
AB2	Organic matter occurs as crack fillings and prism coats in 32-110cm horizons.
B21t	American system, horizon is Bt1. Dry consistence. Organic matter occurs as crack fillings and prism coats in 32-110cm horizons. There appears to be an increase in clay content at 69cm (within the clay loam class).

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B22t American system, horizon is Bt2. Dry consistence. Organic matter occurs as crack fillings and prism coats in 32-110cm horizons.
B23t American system, horizon is Bt3.
B24t American system, horizon is Bt4.

Observation Notes

Soil Taxonomy: Aquic Palexeralf, fine-loamy.

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Exchangeable Na	CEC	ECEC	ESP
m		dS/m				Acidity Cmol (+)/kg			%
0 - 0.08	5.97A	0.05A	4.4E	1.7	0.77	0.02			
0.08 - 0.32	6.92A	0.03A	7.9E	4.8	0.68	0.26			
0.32 - 0.44	7.28A	0.03A	6E	4.7	0.43	0.21			
0.44 - 0.68	7.97A	0.04A	6.4E	6.4	0.31	0.6			
0.68 - 1.1	9.06A	0.13A	6.3E	8.1	0.42	1.3			
1.1 - 1.35	9.47A	0.21A	4.2E	9.4	0.31	3.2			
1.35 - 1.7	9.29A	0.22A							
1.7 - 2	9.62A	0.41A							
2 - 2.5	9.3A	0.2A							
2.5 - 2.75	8.09A	0.24A							

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Laboratory Analyses Completed for this profile

13A1_AL	Oxalate-extractable aluminium
13A1_FE	Oxalate-extractable iron
13A1_MN	Oxalate-extractable manganese
13A1_SI	Oxalate-extractable silicon
15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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
15I4	CEC measurement - titration of ammonium and chloride ions
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6B3	Total organic carbon - high frequency induction furnace, infrared
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