

Project Name: Hardsetting Soils
Project Code: HS **Site ID:** CP294 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	C.J. Chartres	Locality:	Southeastern corner of 'Lake Plain', several kilometres East of 'The Rock'.
Date Desc.:	01/01/92	Elevation:	No Data
Map Ref.:	Sheet No. : 8327 1:100000	Rainfall:	No Data
Northing/Long.:	6095400 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	514350 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:	Lower-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	%	Aspect:	45 degrees

Surface Soil Condition (dry): Cracking

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 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak consistence; Many
B21w	0.1 - 0.4 m	Very dark greyish brown (10YR3/2-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Weak grade of structure, 10-20 mm, Angular blocky; Firm consistence; Many
B22w	0.4 - 0.7 m	Dark grey (10YR4/1-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Weak grade of structure, 10-20 mm, Angular blocky; Firm consistence; Common
B23w	0.7 - 1 m	Grey (10YR5/1-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Weak grade of structure, 10-20 mm, Angular blocky; Firm consistence; Common
B24w	1 - 1.6 m	Grey (5Y6/1-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Weak grade of structure, 10-20 mm, Angular blocky; Firm consistence; Few
BC1	1.6 - 2 m	Grey (5Y6/1-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Firm consistence;
BC2	2 - 2.5 m	Light olive grey (5Y6/2-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Firm consistence;
BC3	2.5 - 3 m	Light olive grey (5Y6/2-Moist); , 7.5YR56, 20-50% , 5-15mm, Prominent; Medium clay; Massive grade of structure; Firm consistence;

Morphological Notes

A1	Very dense root mat in 0-10 cm.
B21w	American system, horizon is Bw1.
B22w	American system, horizon is Bw2.
B23w	American system, horizon is Bw3.
B24w	American system, horizon is Bw4.

Observation Notes

Soil Taxonomy, Xeric Endoaquert, very fine. Surface cracks are about 5 cm wide and they form polygons about 1 m across.

Site Notes

The paddock was formerly a swamp. It was surface-drained about 1984 (?)

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol (+)/kg			
0 - 0.1	6.14A	0.06A	7.6E	3.5	1.5	0.01			
0.1 - 0.4	7.17A	0.04A	12.9E	6.9	1.5	0.12			
0.4 - 0.7	7.59A	0.06A	14.8E	9.4	1.9	0.38			
0.7 - 1	8.12A	0.07A	15E	12.9	2.3	1.2			
1 - 1.6	8.36A	0.09A	13.4E	14.1	2.3	1.6			
1.6 - 2	8.6A	0.11A							
2 - 2.5	8.66A	0.15A							
2.5 - 3	8.7A	0.17A							

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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