

Project Name: Tambellup Borden land resources survey
Project Code: TBO **Site ID:** 0562 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Rohan Marold	Locality:	
Date Desc.:	11/03/97	Elevation:	240 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6234150 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	613203 Datum: AGD84	Drainage:	Moderately well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Landform

Rel/Slope Class: Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	3 %	Aspect:	No Data

Surface Soil Condition Hardsetting, Hardsetting

Erosion

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Calcareous Dermosolic Salic Hydrosol	Principal Profile Form:	Uf6.14
ASC Confidence:	Great Soil Group:	N/A
No analytical data and little or no knowledge of this soil.		

Site Disturbance Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation

Surface Coarse Fragments 10-20%, medium gravelly, 6-20mm, angular, Quartz; 0-2%, , angular, Quartz

Profile Morphology

A1p	0 - 0.04 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Light clay; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Firm consistence; 2-10%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 8 (pH meter); Abrupt change to -
B21	0.04 - 0.33 m	Yellowish red (5YR5/6-Moist); , 0-0% ; Light medium clay; Moderate grade of structure, Subangular blocky; Rough-ped fabric; Moderately moist; Very firm consistence; 0-2%, 10-20 mm, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 9.6 (pH meter); Clear change to -
B2k	0.33 - 0.6 m	Yellow (10YR8/6-Moist); , 7.5YR58, 20-50% , 5-15mm, Distinct; Light clay; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Very many (50 - 100 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 10.2 (pH meter); Gradual, Tongued change to -
C	0.6 - 1.8 m	Light olive brown (2.5Y5/6-Moist); , 10YR58, 10-20% , 5-15mm; Light clay; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 10.1 (pH meter); Gradual change to -

Morphological Notes

Observation Notes

Site Notes

Gentle slope. Hardsetting red clay.

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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 - 0.04	6.8B 7.9H	16B	13.04A	10.67	0.77	1.91			26.39D	
0 - 0.04	6.8B 7.9H	16B	13.04A	10.67	0.77	1.91			26.39D	
0.04 - 0.33	8.4B 9.5H	37B	13.5E	15.24	0.37	6.28		36B	35.39D	17.44
0.04 - 0.33	8.4B 9.5H	37B	13.5E	15.24	0.37	6.28		36B	35.39D	17.44
0.33 - 0.6	8.9B 10.2H	64B	2.62E	11.86	0.18	10.96		24B	25.62D	45.67
0.33 - 0.6	8.9B 10.2H	64B	2.62E	11.86	0.18	10.96		24B	25.62D	45.67
0.6 - 0.9	9.2B 10.2H	74B	1.76E	11.76	0.11	13.06		25B	26.69D	52.24
0.6 - 0.9	9.2B 10.2H	74B	1.76E	11.76	0.11	13.06		25B	26.69D	52.24
0.9 - 1.2	9.2B 10H	98B	1.86E	14.32	0.2	16.86		31B	33.24D	54.39
0.9 - 1.2	9.2B 10H	98B	1.86E	14.32	0.2	16.86		31B	33.24D	54.39
1.2 - 1.6	9.3B 9.9H	84B	1.92E	20.06	0.38	22.72		41B	45.08D	55.41
1.2 - 1.6	9.3B 9.9H	84B	1.92E	20.06	0.38	22.72		41B	45.08D	55.41

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.04		1.19D		200B				14.8
0 - 0.04		1.19D		200B				14.8
0.04 - 0.33	11C	0.66D		130B				
0.04 - 0.33	11C	0.66D		130B				
0.33 - 0.6	28C	0.19D		78B				
0.33 - 0.6	28C	0.19D		78B				
0.6 - 0.9	6C	0.08D		82B				19.4
0.6 - 0.9	6C	0.08D		82B				19.4
0.9 - 1.2	12C	0.07D		76B				
0.9 - 1.2	12C	0.07D		76B				
1.2 - 1.6	13C	0.11D		72B				
1.2 - 1.6	13C	0.11D		72B				

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts

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15A1_MG for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5, soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15J_BASES	Sum of Bases
15L1_a Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
19B_NR	Calcium Carbonate (CaCO ₃) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_gt2m	> 2mm particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10_NR_ZC	Silt + clay (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)