

Project Name: Tambellup Borden land resources survey
Project Code: TBO **Site ID:** 0350 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Rohan Marold	Locality:	
Date Desc.:	11/03/97	Elevation:	272 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6228706 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	600504 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 plains <9m 1-3% **Pattern Type:** Plain

Morph. Type:	Simple-slope	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	3 %	Aspect:	No Data

Surface Soil Condition Soft

Erosion (wind); (scald) (sheet) (rill) (mass) (gully)
(stbank) (tunnel)

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Ferric Mottled-Subnatric Grey Sodosol		Principal Profile Form:	Dy5.42
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

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

Vegetation

Surface Coarse Fragments No surface coarse fragments

Profile Morphology

Ap	0 - 0.12 m	Very dark grey (7.5YR3/1-Moist); ; Loamy sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Water repellent; Field pH 5.3 (pH meter); Abrupt change to -
A21	0.12 - 0.25 m	Light olive brown (2.5Y5/4-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 5.3 (pH meter); Clear change to -
A22	0.25 - 0.53 m	Light brownish grey (2.5Y6/3-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 7.6 (pH meter); Clear change to -
B21	0.53 - 0.63 m	Pale olive (5Y6/3-Moist); , 7.5YR68, 10-20% , 5-15mm, Prominent; Sandy light clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Very firm consistence; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Field pH 7 (pH meter); Gradual change to -
B22	0.63 - 1.15 m	Pale yellow (2.5Y7/3-Moist); , 7.5YR78, 10-20% , 5-15mm, Prominent; Light clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Firm consistence; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Field pH 7.6 (pH meter); Gradual change to -
C	1.15 - 1.65 m	White (2.5Y8/1-Moist); , 2.5Y68, 10-20% , 5-15mm, Prominent; Sandy clay loam; Single grain grade of structure; Sandy (grains prominent) fabric; Weak consistence; Common (10 - 20 %), Ferruginous,

Medium (2 -6 mm), Soft segregations; Field pH 7.8 (pH meter);

Morphological Notes

Observation Notes

Site Notes

Grey deep sandy duplex--sand/gravel/clay

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1	4.1B 5H	7B	1.16H	0.22	0.13	0.14	0.38J		1.65D	
0 - 0.1	4.1B 5H	7B	1.16H	0.22	0.13	0.14	0.38J		1.65D	
0.1 - 0.25	4.2B 5H	5B	0.6H	0.17	0.08	0.18	0.35J		1.03D	
0.1 - 0.25	4.2B 5H	5B	0.6H	0.17	0.08	0.18	0.35J		1.03D	
0.25 - 0.5	5.4B 6.3H	12B	0.87H	0.63	0.08	0.55	0.03J		2.13D	
0.25 - 0.5	5.4B 6.3H	12B	0.87H	0.63	0.08	0.55	0.03J		2.13D	
0.5 - 0.8	6.6B 7.1H	120B	1.54A	4.08	0.64	2.36			8.62D	
0.5 - 0.8	6.6B 7.1H	120B	1.54A	4.08	0.64	2.36			8.62D	
0.8 - 1.1	7.8B 8.7H	93B	1.06E	2.82	0.51	2.68		8B	7.07D	33.50
0.8 - 1.1	7.8B 8.7H	93B	1.06E	2.82	0.51	2.68		8B	7.07D	33.50
1.1 - 1.4	7.8B 8.8H	67B	0.68E	2.18	0.41	2.23		6B	5.5D	37.17
1.1 - 1.4	7.8B 8.8H	67B	0.68E	2.18	0.41	2.23		6B	5.5D	37.17
1.4 - 1.8	7.7B 8.7H	50B	0.59E	2.04	0.34	2.32		5B	5.29D	46.40
1.4 - 1.8	7.7B 8.7H	50B	0.59E	2.04	0.34	2.32		5B	5.29D	46.40

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS	Analysis Silt
0 - 0.1 4.6		0.94D		89B						3.2
0 - 0.1 4.6		0.94D		89B						3.2
0.1 - 0.25 5.3		0.3D		43B						2.6
0.1 - 0.25 5.3		0.3D		43B						2.6
0.25 - 0.5 7.2		0.21D		36B						2.4
0.25 - 0.5 7.2		0.21D		36B						2.4
0.5 - 0.8 44.6		0.32D		49B						5.5
0.5 - 0.8 44.6		0.32D		49B						5.5
0.8 - 1.1 40.1	<2C	0.14D		34B						4.1
0.8 - 1.1	<2C	0.14D		34B						4.1

40.1				
1.1 - 1.4	<2C	0.06D	25B	1.7
31.5				
1.1 - 1.4	<2C	0.06D	25B	1.7
31.5				
1.4 - 1.8	<2C	0.05D	20B	1.7
27.1				
1.4 - 1.8	<2C	0.05D	20B	1.7
27.1				

Laboratory Analyses Completed for this profile

15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15C1_CA pretreatment for	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CEC	salts
15C1_K soluble salts	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_MG soluble salts	soluble salts
15C1_NA soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15E1_AL	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_CA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_K	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble
15E1_MN	salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15L1_a	Sum of Bases
Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
15N1_a	and measured clay
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
19B_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
3_NR	Calcium Carbonate (CaCO ₃) - Not recorded
4_NR	Electrical conductivity or soluble salts - Not recorded
4B_AL_NR	pH of soil - Not recorded
4B1	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
6A1_UC	pH of 1:5 soil/0.01M calcium chloride extract - direct
9A3	Organic carbon (%) - Uncorrected Walkley and Black method
9H1	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_1m2m	Anion storage capacity
P10_20_75	1000 to 2000u particle size analysis, (method not recorded)
P10_75_106	20 to 75u particle size analysis, (method not recorded)
P10_gt2m	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	> 2mm particle size analysis, (method not recorded)
P10_NR_Saa	Clay (%) - Not recorded
P10_NR_Z	Sand (%) - Not recorded arithmetic difference, auto generated
P10106_150	Silt (%) - Not recorded
P10150_180	106 to 150u particle size analysis, (method not recorded)
P10180_300	150 to 180u particle size analysis, (method not recorded)
P10300_600	180 to 300u particle size analysis, (method not recorded)
P106001000	300 to 600u particle size analysis, (method not recorded)
	600 to 1000u particle size analysis, (method not recorded)