

Project Name: Tambellup Borden land resources survey
Project Code: TBO **Site ID:** 0702 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Rohan Marold	Locality:	
Date Desc.:	12/03/97	Elevation:	319 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6230070 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	633841 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:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Simple-slope	Relief:	No Data
Elem. Type:	Hillcrest	Slope Category:	No Data
Slope:	0.5 %	Aspect:	No Data

Surface Soil Condition Firm

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

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Ferric Mottled-Mesonatric Yellow Sodosol	Principal Profile Form:	Dy5.41
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 10-20%, coarse gravelly, 20-60mm, subrounded, Gravel; 0-2%, , subrounded, Gravel

Profile Morphology

Apc	0 - 0.1 m	Very dark greyish brown (2.5Y3/2-Moist); , 0-0% ; Loamy sand; Single grain grade of structure; Sandy
Medium (2 -6		(grains prominent) fabric; Dry; Loose consistence; Common (10 - 20 %), Ferruginous, mm), Concretions; Water repellent; Field pH 5.9 (pH meter); Abrupt change to -
A21c	0.1 - 0.28 m	Pale brown (10YR6/3-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy
(grains prominent)		fabric; Dry; Loose consistence; Very many (50 - 100 %), Ferruginous, Medium (2 -6 mm),
Concretions;		Field pH 6.6 (pH meter); Abrupt change to -
B21c	0.28 - 0.38 m	Olive yellow (2.5Y6/6-Moist); , 5YR68, 10-20% , 5-15mm, Prominent; Sandy light clay;
Moderate grade of		structure, 50-100 mm, Columnar; Smooth-ped fabric; Dry; Very firm consistence; Very
few (0 - 2 %),		Ferruginous, Medium (2 -6 mm), Concretions; Field pH 6.9 (pH meter); Clear change to -
B22c	0.38 - 0.73 m	Olive yellow (2.5Y6/6-Moist); , 2.5Y74, 20-50% , 5-15mm, Prominent; , 7.5YR58, 10-20%
, 5-15mm,		Prominent; Sandy light clay; Weak grade of structure, 5-10 mm, Polyhedral; Smooth-ped
fabric; Dry; Firm		consistence; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH
6.9 (pH meter);		Gradual change to -
B3	0.73 - 0.95 m	Light yellowish brown (2.5Y6/4-Moist); , 2.5Y66, 20-50% , 5-15mm, Prominent; , 5YR58,
0-2% , 5-15mm,		Prominent; Light clay; Weak grade of structure, 5-10 mm, Polyhedral; Smooth-ped fabric;
Dry; Firm		consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Gneiss, coarse fragments;
Field pH 5.6 (pH		meter); Gradual change to -
C	0.95 - 1.75 m	Light brownish grey (2.5Y6/3-Moist); , 2.5Y78, 20-50% , 5-15mm, Prominent; , 5YR74,
10-20% , 5-15mm,		Prominent; Light clay; Weak grade of structure, 5-10 mm, Polyhedral; Smooth-ped fabric;

Firm

Field pH 4.7 (pH

consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Gneiss, coarse fragments;
meter);

Morphological Notes

Observation Notes

Site Notes

Level plain area high in the landscape--Grey shallow sandy duplex. Sandy gravel/domed yellow 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 - 0.11	4.9B 5.7H	11B	5.12H	0.96	0.15	0.18	0.11J		6.41D	
0 - 0.11	4.9B 5.7H	11B	5.12H	0.96	0.15	0.18	0.11J		6.41D	
0.11 - 0.25	5.1B 6.1H	3B	3.18H	0.62	0.05	0.09	0.05J		3.94D	
0.11 - 0.25	5.1B 6.1H	3B	3.18H	0.62	0.05	0.09	0.05J		3.94D	
0.25 - 0.3	5.5B 6.8H	6B	1.24A	2.8	0.19	1.02			5.25D	
0.25 - 0.3	5.5B 6.8H	6B	1.24A	2.8	0.19	1.02			5.25D	
0.3 - 0.45	6.1B 7.2H	11B	2.12A	6.16	0.23	1.2			9.71D	
0.3 - 0.45	6.1B 7.2H	11B	2.12A	6.16	0.23	1.2			9.71D	
0.45 - 0.75	5.2B 6.2H	20B	0.68H	5.65	0.24	2.03	0.05J		8.6D	
0.45 - 0.75	5.2B 6.2H	20B	0.68H	5.65	0.24	2.03	0.05J		8.6D	
0.75 - 1.05	4.5B 5.4H	37B	0.45H	6.09	0.28	3.35	0.34J		10.17D	
0.75 - 1.05	4.5B 5.4H	37B	0.45H	6.09	0.28	3.35	0.34J		10.17D	
1.05 - 1.6	4.2B 4.9H	44B	0.22H	4.23	0.26	3.34	0.37J		8.05D	
1.05 - 1.6	4.2B 4.9H	44B	0.22H	4.23	0.26	3.34	0.37J		8.05D	

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 - 0.11 4		2.31D		180B						4
0 - 0.11 4		2.31D		180B						4
0.11 - 0.25 4		1.07D		57B						4
0.11 - 0.25 4		1.07D		57B						4
0.25 - 0.3 30.8		0.36D		44B						3.4
0.25 - 0.3 30.8		0.36D		44B						3.4
0.3 - 0.45 48.4		0.3D		40B						2.6
0.3 - 0.45 48.4		0.3D		40B						2.6

0.45 - 0.75 45.7	0.16D	34B	3
0.45 - 0.75 45.7	0.16D	34B	3
0.75 - 1.05 69.2	0.12D	33B	4.8
0.75 - 1.05 69.2	0.12D	33B	4.8
1.05 - 1.6 67	0.09D	33B	11.3
1.05 - 1.6 67	0.09D	33B	11.3

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_CM	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - 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
15A1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	
	salts
15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	
	salts
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
salts	
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MN	Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases
15L1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
Sum of Cations	
	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
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method 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
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)