

Project Name: Tambellup Borden land resources survey
Project Code: TBO **Site ID:** 0120 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Rohan Marold	Locality:	
Date Desc.:	12/03/97	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6224438 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	625294 Datum: AGD84	Drainage:	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:	Undulating rises 9-30m 3-10%	Pattern Type:	Rises
Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	4 %	Aspect:	No Data

Surface Soil Condition Loose

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

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Hypocalcic Mottled-Mesonatric Yellow Sodosol		Principal Profile Form:	Dy5.43
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

Profile Morphology

Ap	0 - 0.14 m	Black (2.5Y2/2-Moist); , 0-0% ; Loamy sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Water repellent; Field pH 5 (pH meter); Abrupt change to -
A21e	0.14 - 0.52 m	Light brownish grey (10YR6/2-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Field pH 6 (pH meter); Abrupt, Wavy change to -
B21	0.52 - 0.85 m	Olive yellow (2.5Y6/6-Moist); , 0-0% ; Sandy light clay; Moderate grade of structure, 50-100 mm, Columnar; Smooth-ped fabric; Dry; Very firm consistence; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Field pH 8.4 (pH meter); Clear change to -
B3	0.85 - 1.25 m	Olive yellow (2.5Y6/6-Moist); , 10YR68, 10-20% , 5-15mm, Prominent; Sandy light clay; Weak grade of structure, 5-10 mm, Polyhedral; Smooth-ped fabric; Dry; Firm consistence; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Field pH 9.1 (pH meter); Gradual change to -
C	1.25 - 1.8 m	Light grey (2.5Y7/1-Moist); , 10YR68, 10-20% , 5-15mm, Prominent; Sandy clay loam; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Weak consistence; Field pH 9.3 (pH meter);

Morphological Notes

Observation Notes

Site Notes

Alkaline grey deep sandy duplex

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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 - 0.15	4.5B 5.5H	6B	2.4H	0.36	0.18	0.14	0.29J		3.08D	
0 - 0.15	4.5B 5.5H	6B	2.4H	0.36	0.18	0.14	0.29J		3.08D	
0.15 - 0.5	5.6B 6.6H	2B	0.88A	0.09	0.03	0.06			1.06D	
0.15 - 0.5	5.6B 6.6H	2B	0.88A	0.09	0.03	0.06			1.06D	
0.5 - 0.55	7.1B 8.9H	4B	1.93E	1.8	0.21	0.74		6B	4.68D	12.33
0.5 - 0.55	7.1B 8.9H	4B	1.93E	1.8	0.21	0.74		6B	4.68D	12.33
0.55 - 0.7	7.5B 9.1H	8B	4.39E	5.06	0.63	2.12		15B	12.2D	14.13
0.55 - 0.7	7.5B 9.1H	8B	4.39E	5.06	0.63	2.12		15B	12.2D	14.13
0.7 - 1	7.6B 9.2H 7.6B 9.2H	9B	2.72E 2.72E	5.36 5.36	0.46 0.46	1.89 1.89		12B 12B	10.43D 10.43D	15.75
0.7 - 1	7.6B 9.2H 7.6B 9.2H	9B	2.72E 2.72E	5.36 5.36	0.46 0.46	1.89 1.89		12B 12B	10.43D 10.43D	15.75
0.7 - 1	7.6B 9.2H 7.6B 9.2H	9B	2.72E 2.72E	5.36 5.36	0.46 0.46	1.89 1.89		12B 12B	10.43D 10.43D	15.75
0.7 - 1	7.6B 9.2H 7.6B 9.2H	9B	2.72E 2.72E	5.36 5.36	0.46 0.46	1.89 1.89		12B 12B	10.43D 10.43D	15.75
1 - 1.3	7.7B 9.3H	12B	2.66E	5.59	0.49	2.68		13B	11.42D	20.62
1 - 1.3	7.7B 9.3H	12B	2.66E	5.59	0.49	2.68		13B	11.42D	20.62
1.3 - 1.6	7.9B 9.4H	12B	1.42E	3.47	0.36	2.35		8B	7.6D	29.38
1.3 - 1.6	7.9B 9.4H	12B	1.42E	3.47	0.36	2.35		8B	7.6D	29.38

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 - 0.15 3.4		0.88D		130B						3
0 - 0.15 3.4		0.88D		130B						3
0.15 - 0.5 1.9		0.12D		32B						1.4
0.15 - 0.5 1.9		0.12D		32B						1.4
0.5 - 0.55 22.3	<2C	0.11D		34B						5.5
0.5 - 0.55 22.3	<2C	0.11D		34B						5.5

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0.55 - 0.7 50.4	<2C	0.15D	31B	4.2
0.55 - 0.7 50.4	<2C	0.15D	31B	4.2
0.7 - 1 38.6	<2C	0.1D	24B	1.8
	<2C	0.1D	24B	1.8
0.7 - 1 38.6	<2C	0.1D	24B	1.8
	<2C	0.1D	24B	1.8
0.7 - 1 38.6	<2C	0.1D	24B	1.8
	<2C	0.1D	24B	1.8
0.7 - 1 38.6	<2C	0.1D	24B	1.8
	<2C	0.1D	24B	1.8
1 - 1.3 32.1	<2C	0.07D	22B	2.5
1 - 1.3 32.1	<2C	0.07D	22B	2.5
1.3 - 1.6 28.8	<2C	0.03D	19B	2.7
1.3 - 1.6 28.8	<2C	0.03D	19B	2.7

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,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
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
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)

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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)