

**Project Name:** Tambellup Borden land resources survey  
**Project Code:** TBO **Site ID:** 1388 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Angela Stuart-Street	<b>Locality:</b>	
<b>Date Desc.:</b>	06/06/00	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6213007 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	612266 Datum: AGD84	<b>Drainage:</b>	Well drained

#### Geology

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

#### Landform

**Rel/Slope Class:** Gently undulating plains <9m 1-3% **Pattern Type:** Plain

<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	3 %	<b>Aspect:</b>	180 degrees

#### Surface Soil Condition Firm, Hardsetting

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

#### Soil Classification

<b>Australian Soil Classification:</b>	Mesotrophic Mottled-Mesonatric Brown Sodosol	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	Confidence level not specified	<b>Principal Profile Form:</b>	N/A
		<b>Great Soil Group:</b>	N/A

#### Site Disturbance Cultivation. Rainfed

#### Vegetation

#### Surface Coarse Fragments No surface coarse fragments; No surface coarse fragments

#### Profile Morphology

A1p	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Sandy loam; Single grain grade of structure; Sandy (grains)
B21	0.1 - 0.3 m	Brown (7.5YR4/4-Moist); , 7.5YR52, 0-2% , 0-5mm, Faint; Sandy medium clay; Weak grade of structure, <2 mm, Polyhedral; Earthy fabric; Moist; Field pH 7 (pH meter); Gradual, Smooth change to -
B22	0.3 - 0.4 m	Brown (10YR5/3-Moist); ; Medium clay; Weak grade of structure, <2 mm, Polyhedral; Earthy fabric; Moist; Field pH 6.8 (pH meter); Gradual, Smooth change to -
B23k	0.4 - 0.8 m	Brown (10YR4/3-Moist); , 7.5YR68, 20-50% , 15-30mm, Distinct; , 2.5YR48; Medium heavy clay; Massive grade of structure; Earthy fabric; Moist; Field pH 5.5 (pH meter); Gradual, Wavy change to -
B31	0.8 - 1.2 m	Brown (10YR4/3-Moist); , 2.5YR52, 20-50% , 15-30mm, Distinct; , 7.5YR68, 2-10% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Moist; Field pH 5 (pH meter);
	1.2 - 1.6 m	;

#### Morphological Notes

B21	Vertical cracks down layers 2 and 3.
B22	Vertical cracks down layers 2 and 3.
B23k	Carbonates starts in this horizon. layer added for completeness - TG April 2012

#### Observation Notes

#### Site Notes

Pit located where site TBO0342 done. Dolerite dyke on upslope hill.

**Project Name:** Tambellup Borden land resources survey  
**Project Code:** TBO **Site ID:** 1388 **Observation** 1  
**Agency Name:** Agriculture Western Australia

**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 - 0.05	4.5B	28A	3.52H	1.56	0.53	0.36	0.34J		5.97D	
0.05 - 0.4	5.2A 5.4B 6.6A	23A	3.38A	9.14	3.49	0.68			16.69D	
0.55 - 1.1	4.4B 5.1A	95A	1.53H	6.67	5.65	0.33	0.15J		14.18D	
1.1 - 1.6	4.2B 4.5A	260A	1.02H	4.84	2.72	0.18	0.09J		8.76D	

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 - 0.05		2.73A							6
14.4									
0.05 - 0.4		0.63A							3.8
61.2									
0.55 - 1.1		0.22A							16.7
70.1									
1.1 - 1.6		0.12A							24.7
58.7									

**Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMd	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
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
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B_AL	Aluminium in 1:5 soil/0.01M calcium chloride extract - following Method 4A1
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1	Organic carbon - Walkley and Black

9A_S14	Total element - P(%) method S14 CCWA
9I1	Phosphate sorption index
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75a	20 to 75u particle size analysis, (arithmetic difference)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded

**Project Name:** Tambellup Borden land resources survey  
**Project Code:** TBO                      **Site ID:** 1388                      **Observation** 1  
**Agency Name:** Agriculture Western Australia

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)