

**Project Name:** Wellington Blackwood land resources survey  
**Project Code:** WBW **Site ID:** 0993 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Peter Tille	<b>Locality:</b>	
<b>Date Desc.:</b>	19/11/92	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6259898 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	459517 Datum: AGD84	<b>Drainage:</b>	No Data

#### Geology

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

#### Landform

<b>Rel/Slope Class:</b>	Undulating plains <9m 3-10%	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Breakaway	<b>Slope Category:</b>	No Data
<b>Slope:</b>	5 %	<b>Aspect:</b>	No Data

**Surface Soil Condition** Firm

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Basic Ferric Grey Chromosol		<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
Analytical data are incomplete but reasonable confidence.			

#### Site Disturbance

#### Vegetation

**Surface Coarse Fragments** ; 20-50%, , subrounded, Ironstone

#### Profile Morphology

A1	0 - 0.05 m	Very dark grey (10YR3/1-Moist); ; Loamy fine sand; Weak grade of structure, ; Sandy (grains prominent)
		fabric; Dry; 50-90%, medium gravelly, 6-20mm, subrounded, Ironstone, coarse fragments;
A3	0.05 - 0.85 m	Yellowish brown (10YR5/4-Moist); ; Fine sandy loam; Single grain grade of structure, Granular; Sandy
		(grains prominent) fabric; Dry; 50-90%, medium gravelly, 6-20mm, subrounded, Ironstone, coarse
		fragments; Gradual change to -
B1	0.85 - 1.1 m	Yellowish brown (10YR5/4-Moist); ; Clayey fine sand; Single grain grade of structure, Granular; Sandy
		(grains prominent) fabric; 50-90%, medium gravelly, 6-20mm, subangular, Ironstone, coarse fragments;
		Clear change to -
B21	1.1 - 1.45 m	Yellow (10YR7/6-Moist); ; Sandy loam; Massive grade of structure; 50-90%, medium gravelly, 6-20mm,
		angular, Ironstone, coarse fragments; Diffuse, Wavy change to -
B22	1.45 - 1.6 m	Light grey (5YR7/1-Moist); , 7.5YR4/6, 20-50% ; Heavy clay; Massive grade of structure, Polyhedral;
		Smooth-ped fabric; 2-10%, Ironstone, coarse fragments;
B3	1.8 - m	White (10YR8/0-Moist); , 2-10% ; Heavy clay;

#### Morphological Notes

A3	Sample Layer 2/3
B1	small chunks of below layer
B21	STRUCTURE INDURATED
B3	Clay very hard - almost stone in places. Soil GDS

#### Observation Notes

#### Site Notes

A few laterite boondies down slope. SOIL TYPE GDS

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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 - 0.1	4.9B 5.7H 4.9B 5.7H	7B	7.68H 7.68H	0.82 0.82	0.43 0.43	0.11 0.11	0.48J 0.48J		9.04D 9.04D	
0 - 0.1	4.9B 5.7H 4.9B 5.7H	7B	7.68H 7.68H	0.82 0.82	0.43 0.43	0.11 0.11	0.48J 0.48J		9.04D 9.04D	
0.1 - 0.4	5.4B 6.5H	2B	2.01H	0.41	0.22	0.02	0.05J		2.66D	
0.4 - 0.8	5.5B 6.7H	2B	1.03A	0.49	0.24	0.03			1.79D	
0.85 - 1.05	5.8B 6.7H	2B	1.16A	1.09	0.18	0.05			2.48D	
1.1 - 1.4	4.5B 5.2H	4B	0.56H	1.67	0.08	0.11	0.34J		2.42D	
1.45 - 1.6	4.1B 4.8H	4B	0.24H	2.39	0.03	0.24	0.6J		2.9D	
1.8 - 2	4B 5.2H	5B	0.2H	3.81	<0.02	0.54	0.76J		4.56D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	Clay %	mg/kg	%	%	%	Mg/m3			%	
0 - 0.1		6.06D		630B	0.396E						6.5
2.2		6.06D		630B	0.396E						6.5
		2.2									
0 - 0.1		6.06D		630B	0.396E						6.5
2.2		6.06D		630B	0.396E						6.5
		2.2									
0.1 - 0.4		0.57D		90B	0.036E						4.9
6.4											
0.4 - 0.8		0.26D		67B	0.02E						4.6
6.9											
0.85 - 1.05		0.25D		86B	0.018E						4
8.5											
1.1 - 1.4		0.11D		58B	0.01E						7.4
33.1											
1.45 - 1.6		0.12D		29B	0.012E						6.8
69.1											
1.8 - 2		0.15D		25B	0.014E						18.5
40.8											

**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 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 for soluble	salts Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

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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
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
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_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)