

**Project Name:** Dandaragan land resources survey  
**Project Code:** DAN **Site ID:** 0853 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

<b>Desc. By:</b>	B. Purdie	<b>Locality:</b>	
<b>Date Desc.:</b>	17/05/96	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6607499 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	377072 Datum: AGD84	<b>Drainage:</b>	Moderately 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

**Land Form**

**Rel/Slope Class:** Undulating low hills 30-90m 3-10% **Pattern Type:** Low hills

<b>Morph. Type:</b>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Footslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	270 degrees

**Surface Soil Condition** Firm

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Eutrophic Mottled-Hypernatric Brown Sodosol	<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** Complete clearing. Pasture, native or improved, cultivated at some stage

**Vegetation:**

**Surface Coarse**

**Profile**

Ap	0 - 0.05 m	Dark brown (10YR3/3-Moist); ; Sandy loam; Weak grade of structure, 2-5 mm, ; Moist; Very weak
		consistence; Field pH 6 (pH meter); Common, very fine (0-1mm) roots; Clear, Smooth change to -
A1	0.05 - 0.2 m	Brown (7.5YR4/2-Moist); ; Loamy sand; Weak grade of structure, 2-5 mm, Subangular blocky; Sandy
		(grains prominent) fabric; Dry; Weak consistence; Field pH 5.1 (pH meter); Common, very fine (0-1mm)
		roots; Gradual, Smooth change to -
B21w	0.2 - 0.75 m	Dark yellowish brown (10YR4/4-Moist); Mottles, 7.5YR46, 10-20% , 15-30mm, Faint; Clayey sand;
		Massive grade of structure; Sandy (grains prominent) fabric; Dry; Firm consistence; Field pH 6 (pH
		meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22t	0.75 - 1 m	Dark yellowish brown (10YR3/4-Moist); Mottles, 5YR32, 2-10% , 0-5mm, Faint; Mottles, 2.5YR36, 2-10%
		, 0-5mm, Faint; Clay loam, sandy; Moderate grade of structure, 5-10 mm, Prismatic;
		Rough-ped fabric;
		Moderately moist; Very strong consistence; Few cutans, <10% of ped faces or walls
		pH 7.6 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B23t	1 - 1.3 m	Light olive brown (2.5Y5/4-Moist); Mottles, 10R46, 20-50% , 0-5mm, Distinct; Sandy
		medium clay; Strong
		grade of structure, 50-100 mm, Prismatic; Smooth-ped fabric; Moderately moist; Very
		consistence; Many cutans, >50% of ped faces or walls coated, distinct; Field pH 8 (pH
		meter); Few, very
		fine (0-1mm) roots; Gradual, Wavy change to -
B24t	1.3 - 1.5 m	Olive (5Y4/3-Moist); Mottles, 2.5YR46, 10-20% , 0-5mm, Distinct; Medium clay; Strong
		grade of
		structure, 10-20 mm, Prismatic; Smooth-ped fabric; Moist; Very strong consistence;
		Common cutans, 10-

50% of ped faces or walls coated, distinct; Field pH 8.6 (pH meter);

**Morphological Notes**

B21w Mottle abundance increases with depth--pH increases from 5.6 to 6.5 with depth  
B22t Roots between peds

**Observation Notes**

**Site Notes**

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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 - 0.05	5B 5.9H	6B	3.74H	1.06	0.28	0.32	0.07J		5.4D	
0 - 0.05	5B 5.9H	6B	3.74H	1.06	0.28	0.32	0.07J		5.4D	
0 - 0.04										
0.05 - 0.2	4.2B 5H	6B	1.61H	0.78	0.15	0.18	0.55J		2.72D	
0.05 - 0.2	4.2B 5H	6B	1.61H	0.78	0.15	0.18	0.55J		2.72D	
0.05 - 0.09										
0.2 - 0.4	4.2B 5.4H	2B	0.84H	0.61	0.1	0.11	0.34J		1.66D	
0.2 - 0.4	4.2B 5.4H	2B	0.84H	0.61	0.1	0.11	0.34J		1.66D	
0.33 - 0.37										
0.4 - 0.75	5B 6.3H	2B	0.87H	0.95	0.04	0.19	0.04J		2.05D	
0.4 - 0.75	5B 6.3H	2B	0.87H	0.95	0.04	0.19	0.04J		2.05D	
0.75 - 1	5.6B 7.2H	7B	0.94A	4.39	0.13	1.81			7.27D	
0.75 - 1	5.6B 7.2H	7B	0.94A	4.39	0.13	1.81			7.27D	
0.75 - 0.79										
1 - 1.3	6.5B 7.8H	16B	1.29E	8.32	0.28	4.35		17B	14.24D	25.59
1 - 1.3	6.5B 7.8H	16B	1.29E	8.32	0.28	4.35		17B	14.24D	25.59
1.03 - 1.07										
1.3 - 1.5	7.2B 8.4H	21B	1.19E	9.31	0.38	4.62		18B	15.5D	25.67
1.3 - 1.5	7.2B 8.4H	21B	1.19E	9.31	0.38	4.62		18B	15.5D	25.67

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 - 0.05		1.5D		366B	0.137E					2.5
0 - 0.05		1.5D		366B	0.137E					2.5
0 - 0.04							1.39			
0.05 - 0.2		0.54D		189B	0.052E					1.8
0.05 - 0.2		0.54D		189B	0.052E					1.8
0.05 - 0.09							1.61			
0.2 - 0.4		0.2D		134B	0.024E					1.5
0.2 - 0.4		0.2D		134B	0.024E					1.5
0.33 - 0.37							1.54			
0.4 - 0.75		0.14D		131B	0.018E					1.4
0.4 - 0.75		0.14D		131B	0.018E					1.4
0.75 - 1		0.21D		177B	0.035E					1.1
0.75 - 1		0.21D		177B	0.035E					1.1



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0.75 - 0.79				1.68	
1 - 1.3	0.14D	136B	0.024E		1.7
26.2					
1 - 1.3	0.14D	136B	0.024E		1.7
26.2					
1.03 - 1.07				1.91	
1.3 - 1.5	<2C 0.06D	235B	0.016E		3
28.1					
1.3 - 1.5	<2C 0.06D	235B	0.016E		3
28.1					

**Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, 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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
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
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
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)

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P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)
P3A_NR	Bulk density - Not recorded