

Project Name: Dandaragan land resources survey
Project Code: DAN **Site ID:** 0421 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Ted (E.A.) Griffin	Locality:	
Date Desc.:	21/08/95	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6562858 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	411959 Datum: AGD84	Drainage:	Well drained

Geology

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

Land Form

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

Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	7 %	Aspect:	135 degrees

Surface Soil Condition

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Petroferric Yellow Chromosol		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
No analytical data are available but confidence is fair.			

Site Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse

Profile

A1	0 - 0.05 m	Dark greyish brown (10YR4/2-Moist); ; Single grain grade of structure; Sandy (grains prominent) fabric;
		Moist; 50-90%, medium gravelly, 6-20mm, subangular, Ironstone, coarse fragments;
		Field pH 6.2 (pH meter); ManyAbrupt, Irregular change to -
B21	0.05 - 0.45 m	Brownish yellow (10YR6/8-Moist); , 2.5YR46, 2-10% , 5-15mm, Distinct; Single grain grade of structure;
		Sandy (grains prominent) fabric; Moist; Firm consistence; Ferricrete, Strongly cemented, Nodular;
		FewClear, Wavy change to -
B22	0.45 - 0.8 m	Brownish yellow (10YR6/8-Moist); , 2.5YR46, 20-50% , 5-15mm, Distinct; , 10YR62;
		Sandy loam;
		Massive grade of structure; Sandy (grains prominent) fabric; Moist; Field pH 6.4 (pH meter); FewDiffuse
		change to -
Cr	0.8 - 1.5 m	Yellow (10YR7/6-Moist); , 2.5YR72, 20-50% , 5-15mm, Faint; , 10R46, 2-10% , 15-30mm, Prominent;
		Fine sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist;
		Field pH 6.2 (pH meter); FewDiffuse change to -
Cr	1.5 - 2 m	Pale red (2.5YR7/2-Moist); , 10YR76, 20-50% , 15-30mm, Faint; , 10R46, 20-50% , 15-30mm, Prominent;
		Fine sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist;
		Field pH 5.8 (pH meter);

Morphological Notes

A1	Fine sandy loamy gravel -- Variable depth (5-30cm)--usually fine sandy loamy gravel (size 2,abundance 70%, ironstone, sub-rounded)
B21	Moderately cemented sub-rounded to sub-angular lateritic gravel-- thickness varies (20-30cm)--
	may have clear root channels lined with sandy loam and even horizontal layers of sand--
	grades to
	layer 3 becoming less gravelly
B22	Clearly platy segregations--many alternating layers: grey sand, soft yellowish and firm

reddish--

Cr
channels

1cm from

Cr
this layer

some vertical root channels

Clear horiz. fine striations from weath rock--some pale platy mottles--some distinct root
(filled with sand grading to clay at depth)--root channels surrounded by mott zone up to

edge of channel--grading to paler layer 5

Predominately pale mottles--pale bands alternate with layers of dark red (more clayey)--

has distinct structure of weathered rock

Observation Notes

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Site Notes

sampled: 421a-e

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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 - 0.05	4.2B 4.8H	18B	2.49H	0.34	0.14	0.05	0.36J		3.02D	
0 - 0.05	4.2B 4.8H	18B	2.49H	0.34	0.14	0.05	0.36J		3.02D	
0.05 - 0.45	5.4B 6.1H	3B	1.67H	0.74	0.12	0.08	<0.02J		2.61D	
0.05 - 0.45	5.4B 6.1H	3B	1.67H	0.74	0.12	0.08	<0.02J		2.61D	
0.45 - 0.8	5.4B 6.3H	2B	1.53H	1.24	0.06	0.13	<0.02J		2.96D	
0.45 - 0.8	5.4B 6.3H	2B	1.53H	1.24	0.06	0.13	<0.02J		2.96D	
0.8 - 1.5	5.6B 6.2H	3B	1.11H	1.84	0.04	0.19	<0.02J		3.18D	
0.8 - 1.5	5.6B 6.2H	3B	1.11H	1.84	0.04	0.19	<0.02J		3.18D	
1.5 - 2	5.2B 5.8H	4B	0.27H	2.16	<0.02	0.23	<0.02J		2.67D	
1.5 - 2	5.2B 5.8H	4B	0.27H	2.16	<0.02	0.23	<0.02J		2.67D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.05		1.38D		115B	0.093E			4.3
3.6								
0 - 0.05		1.38D		115B	0.093E			4.3
3.6								
0.05 - 0.45		0.19D		46B	0.014E			4.7
9.8								
0.05 - 0.45		0.19D		46B	0.014E			4.7
9.8								
0.45 - 0.8		0.17D		29B	0.013E			6.2
16.6								
0.45 - 0.8		0.17D		29B	0.013E			6.2
16.6								
0.8 - 1.5		0.11D		23B	0.009E			10.4
34.5								
0.8 - 1.5		0.11D		23B	0.009E			10.4
34.5								
1.5 - 2		0.05D		26B	0.004E			11.9
26.4								
1.5 - 2		0.05D		26B	0.004E			11.9
26.4								

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
 15E1_AL Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts

15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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 (Mn ²⁺) 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
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
18A1_NR	Bicarbonate-extractable potassium (not recorded)
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded

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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)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)