

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 0724 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Heather Percy	Locality:	
Date Desc.:	19/02/93	Elevation:	350 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6329810 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	536340 Datum: AGD84	Drainage:	Imperfectly 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:	30 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	5 %	Aspect:	135 degrees

Surface Soil Condition Hardsetting, Hardsetting

Erosion: (wind); (sheet) (rill) (gully)

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Eutrophic Mottled-Mesonatric Red Sodosol	Principal Profile Form:	Dr3.42
ASC Confidence:	Great Soil Group:	N/A

All necessary analytical data are available.

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

Vegetation:

Surface Coarse No surface coarse fragments; 2-10%, , subangular, Granite

Profile

A1 0 - 0.12 m 10-20 mm, 6mm, angular, Wavy change to -	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Sandy loam; Weak grade of structure, Subangular blocky; Rough-ped fabric; Dry; Weak consistence; 10-20%, fine gravelly, 2- Quartz, coarse fragments; Field pH 5.5 (Raupach); Many, fine (1-2mm) roots; Clear,
A21 0.12 - 0.4 m Dry; Weak 6 (Raupach);	Dark reddish brown (5YR3/4-Moist); , 0-0% ; Sandy loam; Massive grade of structure; consistence; 20-50%, fine gravelly, 2-6mm, angular, Dolerite, coarse fragments; Field pH Common, fine (1-2mm) roots; Abrupt, Wavy change to -
A22e 0.4 - 0.5 m Massive angular, Dolerite, change to -	Light brownish grey (10YR6/2-Moist); Mottles, 5YR53, 0-2% , 0-5mm, Faint; Clayey sand; grade of structure; Dry; Very weak consistence; 20-50%, medium gravelly, 6-20mm, coarse fragments; Field pH 6.5 (Raupach); Common, fine (1-2mm) roots; Sharp, Wavy
B21t 0.5 - 0.75 m Moderate grade of medium gravelly, Gradual, Wavy	Red (2.5YR4/6-Moist); Mottles, 10YR62, 20-50% , 15-30mm, Distinct; Medium clay; structure, 50-100 mm, Columnar; Rough-ped fabric; Dry; Strong consistence; 2-10%, 6-20mm, rounded, , coarse fragments; Field pH 7 (Raupach); Few, fine (1-2mm) roots; change to -
B22 0.75 - 1 m grade of fine gravelly, 2- mm), Nodules;	Yellowish red (5YR5/6-Moist); Mottles, 10YR53, 10-20% , 0-5mm, Faint; Light clay; Weak structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; 20-50%, 6mm, subangular, Quartz, coarse fragments; Few (2 - Field pH 7.5 (Raupach); Few, fine (1-2mm) roots; Gradual, Wavy change to -
C 1 - 2 m	Yellowish brown (10YR5/4-Moist); Mottles, 7.5YR56, 10-20% , 5-15mm, Faint; Light clay;

Weak grade of

10 %),

structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; Few (2 -

Ferruginous, Medium (2 -6 mm), Nodules; Field pH 7.5 (Raupach);

Morphological Notes

A1 Also dolerite and granite gravel
A21 Also quartz and granite gravel and stones
A22e Also quartz and granite gravel and scattered stones
B21t Black gravel. Weak to strongly domed, parting to 5 PO
C Weathered dolerite

Observation Notes

Site Notes

30m downslope of granite rock (gneiss?) outcrop. Patches of soil with a loose surface

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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 - 0.12	5B 5.8H	19B	9.43H	1.55	0.44	0.73	0.09J		12.15D	
0 - 0.1	5.2B 5.9H 5.1B	20B								
0 - 0.12	5B 5.8H	19B	9.43H	1.55	0.44	0.73	0.09J		12.15D	
0 - 0.1	5.2B 5.9H 5.1B	20B								
0 - 0.1	5.2B 5.9H 5.1B	20B								
0.12 - 0.4	5.6B 6.8H	4B	5.99A	1.47	0.11	0.36			7.93D	
0.12 - 0.4	5.6B 6.8H	4B	5.99A	1.47	0.11	0.36			7.93D	
0.15 - 0.25	5.6B									
0.4 - 0.5	5.8B 7.2H	2B	1.54A	0.87	0.04	0.25			2.7D	
0.4 - 0.5	5.8B 7.2H	2B	1.54A	0.87	0.04	0.25			2.7D	
0.4 - 0.5	5.8B 7.2H	2B	1.54A	0.87	0.04	0.25			2.7D	
0.5 - 0.75	5.9B 7.4H	7B	4.44A	7.49	0.12	2.14			14.19D	
0.5 - 0.75	5.9B 7.4H	7B	4.44A	7.49	0.12	2.14			14.19D	
0.75 - 1	6.2B 7.9H	7B	4.25A	8.22	0.12	2.68			15.27D	
0.75 - 1	6.2B 7.9H	7B	4.25A	8.22	0.12	2.68			15.27D	
1 - 1.4	6.5B 8H	11B	6.49A	13.34	0.16	7.05			27.04D	
1 - 1.4	6.5B 8H	11B	6.49A	13.34	0.16	7.05			27.04D	
1 - 1.4	6.5B 8H	11B	6.49A	13.34	0.16	7.05			27.04D	

Depth CaCO3 Organic Avail. Total Total Total Bulk Particle Size Analysis

		C Clay	P	P	N	K	Density	GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.12		2.38D		210B	0.192E						9.7
7.2											
0 - 0.1		2.37D		220B	0.193E						
0 - 0.12		2.38D		210B	0.192E						9.7
7.2											
0 - 0.1		2.37D		220B	0.193E						
0 - 0.1		2.37D		220B	0.193E						

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0.12 - 0.4 11.9	0.48D	95B	0.048E	8.9
0.12 - 0.4 11.9	0.48D	95B	0.048E	8.9
0.15 - 0.25 0.4 - 0.5 5	0.12D	51B	0.017E	6.4
0.4 - 0.5 5	0.12D	51B	0.017E	6.4
0.4 - 0.5 5	0.12D	51B	0.017E	6.4
0.5 - 0.75 39.1	0.15D	32B	0.02E	9
0.5 - 0.75 39.1	0.15D	32B	0.02E	9
0.75 - 1 32	0.07D	19B	0.01E	9.2
0.75 - 1 32	0.07D	19B	0.01E	9.2
1 - 1.4 16.1	<2C 0.04D	57B	0.009E	13.7
1 - 1.4 16.1	<2C 0.04D	57B	0.009E	13.7
1 - 1.4 16.1	<2C 0.04D	57B	0.009E	13.7

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR	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
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
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 Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
	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)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)