Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **1586** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	15/02/94	**Elevation:**	297 metres
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6297970 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	584240 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: Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

Morph. Type:	Mid-slope	**Relief:**	12 metres
Elem. Type:	Hillslope	**Slope Category:**	No Data
Slope:	2 %	**Aspect:**	0 degrees

Surface Soil Condition

Cracking, Hardsetting

Erosion:

(wind); (sheet) (rill) (gully)

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified

Mapping Unit: N/A
Principal Profile Form: Dy3.13
Great Soil Group: N/A

Site

Cultivation. Rainfed

Vegetation:

Surface Coarse

10-20%, medium gravelly, 6-20mm, angular, Quartz; 2-10%, , subangular, Quartz

Profile

A1p 0 - 0.07 m Dark grey (2.5Y4/1-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Dry; Strong consistence; 20-50%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; 20-50%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Abrupt, Wavy change to -

B21 0.07 - 0.3 m Light yellowish brown (10YR6/4-Moist); , 0-0% ; Light medium clay; Moderate grade of structure, 200-500 mm, Prismatic; Rough-ped fabric; Dry; Strong consistence; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach); Few, very fine (0-1mm) roots; Clear, Smooth change to -

B22 0.3 - 0.65 m Pale brown (10YR6/3-Moist); Mottles, 2.5YR46, 10-20% , 15-30mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Strong consistence; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach); Common, very fine (0-1mm) roots; Clear, Wavy change to -

B3 0.65 - 1.15 m Light brownish grey (10YR6/2-Moist); Mottles, 10YR81, 20-50% , 15-30mm, Distinct; , 10YR58, 10-20% , 15-30mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Very strong consistence; 20-50%, fine gravelly, 2-6mm, subrounded, Granite, coarse fragments; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Clear, Smooth change to -

C 1.15 - 1.5 m White (10YR8/1-Moist); Mottles, 10YR58, 10-20% , 5-15mm, Distinct; Clayey coarse sand; Massive grade of structure; Dry; 20-50%, coarse gravelly, 20-60mm, subrounded, Granite, coarse fragments; Field pH 4 (Raupach);

Morphological Notes

B21	Roots outside peds kaolinitic clay
B22	Kaolinitic clay
B3	Mainly Feldspar - Kaolinitic clay
C	Kaolinised granite rock

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.07	5.5B 6H	55B	4.9H	4.5	0.6	0.57	0.02J		10.57D	
0 - 0.1	6.2B 6.8H	52B								
0 - 0.07	5.5B 6H	55B	4.9H	4.5	0.6	0.57	0.02J		10.57D	
0 - 0.08	5.6B									
0 - 0.1	6.2B 6.8H	52B								
0.07 - 0.27	7.3B 8.1H	35B	4.7E	5.7	0.58	1.3		14B	12.28D	9.29
0.07 - 0.27	7.3B 8.1H	35B	4.7E	5.7	0.58	1.3		14B	12.28D	9.29
0.15 - 0.25	7.8B									
0.27 - 0.3	8B 8.7H	65B	3.7E	6	0.56	2.5		13B	12.76D	19.23
0.27 - 0.3	8B 8.7H	65B	3.7E	6	0.56	2.5		13B	12.76D	19.23
0.3 - 0.6	7.9B 8.4H	120B	3.1E	6.4	0.59	2.9		14B	12.99D	20.71
0.3 - 0.6	7.9B 8.4H	120B	3.1E	6.4	0.59	2.9		14B	12.99D	20.71
0.4 - 0.5	7.9B									
0.6 - 0.65	7.4B 7.7H	200B	2.5A	7.7	0.57	3.3			14.07D	
0.6 - 0.65	7.4B 7.7H	200B	2.5A	7.7	0.57	3.3			14.07D	
0.65 - 0.95	5.5B 5.6H	420B	1.9H	8	0.36	2.6	<0.02J		12.86D	
0.65 - 0.95	5.5B 5.6H	420B	1.9H	8	0.36	2.6	<0.02J		12.86D	
0.95 - 1.15	4.5B 4.6H	590B	1.7H	7	0.37	3.9	0.05J		12.97D	
0.95 - 1.15	4.5B 4.6H	590B	1.7H	7	0.37	3.9	0.05J		12.97D	
1.15 - 1.4	4.3B 4.4H	1000B	1.6H	5.8	0.37	6.4	0.04J		14.17D	
1.15 - 1.4	4.3B 4.4H	1000B	1.6H	5.8	0.37	6.4	0.04J		14.17D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt
		Clay									
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.07		1.75D		240B	0.135E						7.5
22.2											
0 - 0.1		1.42D		160B	0.105E						
0 - 0.07		1.75D		240B	0.135E						7.5
22.2											
0 - 0.08											

0 - 0.1		1.42D	160B	0.105E		
0.07 - 0.27	<2C	0.6D	67B	0.042E		5.3
48.9						
0.07 - 0.27	<2C	0.6D	67B	0.042E		5.3
48.9						

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0.15 - 0.25						
0.27 - 0.3	<2C	0.27D	45B	0.021E		5.3
61.2						
0.27 - 0.3	<2C	0.27D	45B	0.021E		5.3
61.2						
0.3 - 0.6	<2C	0.17D	40B	0.017E		5.9
66.3						
0.3 - 0.6	<2C	0.17D	40B	0.017E		5.9
66.3						
0.4 - 0.5						
0.6 - 0.65		0.16D	44B	0.013E		8.6
73.4						
0.6 - 0.65		0.16D	44B	0.013E		8.6
73.4						
0.65 - 0.95		0.29D	41B	0.015E		13.6
64.3						
0.65 - 0.95		0.29D	41B	0.015E		13.6
64.3						
0.95 - 1.15		0.3D	52B	0.012E		16.1
47.9						
0.95 - 1.15		0.3D	52B	0.012E		16.1
47.9						
1.15 - 1.4		0.27D	36B	0.011E		9.4
30						
1.15 - 1.4		0.27D	36B	0.011E		9.4
30						

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