Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **0795** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	13/05/93	**Elevation:**	351 metres
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6345360 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	546410 Datum: AGD84	**Drainage:**	Moderately 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:	Upper-slope	**Relief:**	35 metres
Elem. Type:	Hillslope	**Slope Category:**	No Data
Slope:	3 %	**Aspect:**	315 degrees

Surface Soil Condition

Self-mulching

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: Gn3.13
Great Soil Group: N/A

Site

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

Vegetation:

Surface Coarse

2-10%, medium gravelly, 6-20mm, subangular, Dolerite; 20-50%, , subangular, Dolerite

Profile

Ap 0 - 0.1 m Dark reddish brown (5YR3/2-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, Dolerite, coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Clear, Wavy change to -

B21 0.1 - 0.3 m Dark reddish brown (2.5YR3/3-Moist); , 0-0% ; Light clay; Strong grade of structure, 10-20 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, subangular, Dolerite, coarse fragments; Field pH 8.5 (Raupach); Many, very fine (0-1mm) roots; Irregular change to -

B22k 0.3 - 0.45 m Reddish brown (2.5YR4/4-Moist); , 2.5YR33, 10-20% , 5-15mm, Faint; Light medium clay; Strong grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Firm consistence; 2-10%, fine gravelly, 2-6mm, subangular, Dolerite, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 9.5 (Raupach); Many, very fine (0-1mm) roots; Abrupt, Wavy change to -

C 0.45 - 1.15 m ; Massive grade of structure; Dry; Soil matrix is Very highly calcareous; Field pH 9.5 (Raupach);

Morphological Notes

Ap	Parting to granular, medium
B22k	Mottles due to movement of clay
C	White calcareous layer with stones, weathered dolerite

Observation Notes

Site Notes

East Narrogin soil pit. (Denis Cardwell), some surface cracks present

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m				Cmol (+)/kg				%
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0 - 0.1	6.3B	41B	19A	4.4	3.6	0.47			27.47D	
	6.7H	43B								
	5.8B	55B								
	6.3H									
	6.4B									
	6.8H									
	6.1B									
0.1 - 0.3	6.9B	26B	24A	5.5	1.2	0.7			31.4D	
	7.5H									

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0.1 - 0.3	6.9B 7.5H	26B	24A	5.5	1.2	0.7			31.4D	
0.1 - 0.3	6.9B 7.5H	26B	24A	5.5	1.2	0.7			31.4D	
0.15 - 0.25	7.1B									
0.3 - 0.45	7.4B 8H	29B	26A	5.2	0.28	0.96			32.44D	
0.3 - 0.45	7.4B 8H	29B	26A	5.2	0.28	0.96			32.44D	
0.3 - 0.45	7.4B 8H	29B	26A	5.2	0.28	0.96			32.44D	
0.35 - 0.45	7.2B									
0.45 - 0.8	7.8B 7.9H	900B	36A	7.1	0.03	2.7			45.83D	
0.45 - 0.8	7.8B 7.9H	900B	36A	7.1	0.03	2.7			45.83D	
0.8 - 1.1	8B 8.2H	600B	13E	4.4	0.03	3.7		12B	21.13D	30.83
0.8 - 1.1	8B 8.2H	600B	13E	4.4	0.03	3.7		12B	21.13D	30.83

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 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0 - 0.1		4.45D		540B	0.406E						18.1	16.6
		4.18D		610B	0.376E							
		3.85D		470B	0.354E							
0.1 - 0.3		1.62D		200B	0.138E						17.1	26.3
0.1 - 0.3		1.62D		200B	0.138E						17.1	26.3
0.1 - 0.3		1.62D		200B	0.138E						17.1	26.3
0.15 - 0.25												
0.3 - 0.45		0.79D		100B	0.071E						15.3	24.1
0.3 - 0.45		0.79D		100B	0.071E						15.3	24.1
0.3 - 0.45		0.79D		100B	0.071E						15.3	24.1

0.35 - 0.45					
0.45 - 0.8	24C	0.5D	100B	0.074E	6.8
7.6					
0.45 - 0.8	24C	0.5D	100B	0.074E	6.8
7.6					
0.8 - 1.1	23C	0.3D	140B	0.041E	4.6
6.2					

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0.8 - 1.1	23C	0.3D	140B	0.041E		4.6
6.2						

Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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
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
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)