Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **0138** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	03/12/91	**Elevation:**	319 metres
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6326810 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	497860 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:	Mid-slope	**Relief:**	40 metres
Elem. Type:	Hillslope	**Slope Category:**	No Data
Slope:	3 %	**Aspect:**	0 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Vertic Eutrophic Brown Chromosol **Principal Profile Form:** Dy2.22
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, Dolerite

Profile

A1 0 - 0.09 m Dark reddish brown (5YR3/3-Moist); , 0-0% ; Loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Dry; 10-20%, coarse fragments; Field pH 6 (Raupach); Abundant, fine (1-2mm) roots; Clear, Smooth change to -

A2 0.09 - 0.56 m Reddish brown (5YR4/4-Moist); , 0-0% ; Sandy clay loam; Massive grade of structure; Rough-ped fabric; Dry; 20-50%, Dolerite, coarse fragments; Field pH 6.5 (Raupach); Many, fine (1-2mm) roots; Smooth change to -

B2t 0.56 - 0.89 m Yellowish brown (10YR5/6-Moist); , 0-0% ; Medium clay; Strong grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; 20-50%, coarse fragments; Field pH 7 (Raupach); Many, fine (1-2mm) roots; Abrupt, Smooth change to -

C 0.89 - 1 m Brownish yellow (10YR6/6-Moist); , 0-0% ; Coarse sand; Massive grade of structure; Dry; 50-90%, Quartz, coarse fragments; Field pH 7 (Raupach);

Morphological Notes

A1	F,M S CONTAINS FINE SAND
A2	M S DR FINE FELDSPAR
B2t	F A FELD.SLICKENSIDES CDK
C	F A QZ & M WEATHERED GRAN

Observation Notes

Site Notes

100% rock (dolerite) outcrop 20m upslope with York gum -colluvium

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m				Cmol (+)/kg				%
0 - 0.09	5B 5.8H	5B	8.18H	1.47	0.13	0.15	0.11J		9.93D	
0 - 0.09	5B 5.8H	5B	8.18H	1.47	0.13	0.15	0.11J		9.93D	
0.09 - 0.56	6B 7.2H	2B	3.32A	2.13	0.06	0.16			5.67D	
0.09 - 0.56	6B 7.2H	2B	3.32A	2.13	0.06	0.16			5.67D	
0.56 - 0.89	5.7B 6.9H	6B	9.09A	9.25	0.16	0.7			19.2D	
0.56 - 0.89	5.7B 6.9H	6B	9.09A	9.25	0.16	0.7			19.2D	
0.89 - 1	5.6B 7H	2B	6.01A	5	0.09	0.65			11.75D	
0.89 - 1	5.6B 7H	2B	6.01A	5	0.09	0.65			11.75D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
		Clay						GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.09		1.88D		140B	0.137E						12.4
15.3											
0 - 0.09		1.88D		140B	0.137E						12.4
15.3											
0.09 - 0.56		0.21D		43B	0.022E						11.9
17.4											
0.09 - 0.56		0.21D		43B	0.022E						11.9
17.4											
0.56 - 0.89		0.13D		17B	0.015E						8.8
49.9											
0.56 - 0.89		0.13D		17B	0.015E						8.8
49.9											
0.89 - 1		0.12D		35B	0.011E						6.5
11.4											
0.89 - 1		0.12D		35B	0.011E						6.5
11.4											

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
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

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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
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
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)