Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **1577** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	10/02/94	**Elevation:**	355 metres
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6277910 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	549800 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:	2 %	**Aspect:**	270 degrees

Surface Soil Condition Loose

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

Soil Classification

Australian Soil Classification:
Ferric Mottled-Subnatric Yellow Sodosol
ASC Confidence:
Confidence level not specified

Mapping Unit: N/A
Principal Profile Form: Dy5.41
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, subrounded, ; No surface coarse fragments

Profile

A1 0 - 0.15 m Dark grey (10YR4/1-Moist); , 0-0% ; Loamy sand; Massive grade of structure; Dry; Very weak consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 10-20%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Abrupt, Smooth change to -

A21e 0.15 - 0.45 m Pale brown (10YR6/3-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; Dry; Loose consistence; 20-50%, medium gravelly, 6-20mm, subrounded, , coarse fragments; 20-50%, coarse gravelly, 20-60mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Clear, Smooth change to -

A22e 0.45 - 0.65 m Light yellowish brown (10YR6/4-Moist); , 0-0% ; Clayey coarse sand; Massive grade of structure; Dry; Very weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 20-50%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Abrupt, Wavy change to -

B2 0.65 - 0.9 m Brownish yellow (10YR6/6-Moist); Mottles, 7.5YR56, 10-20% , 15-30mm, Distinct; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Dry; Firm consistence; Field pH 5.5 (Raupach); Few, fine (1-2mm) roots; Gradual, Wavy change to -

B3 0.9 - 1.4 m Brownish yellow (10YR6/8-Moist); Mottles, 2.5YR46, 10-20% , 15-30mm, Prominent; Light clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; 20-50%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Field pH 5.5 (Raupach);

Morphological Notes

A21e KS in WCMS
B2 Kaolinitic clay

B3 Kaolinitic clay

Observation Notes

Site Notes

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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	5B 5.9H 4.9B 5.7H 4.9B	4B 5B	2.8H	0.8	0.07	0.05	0.06J		3.72D	
0 - 0.1	5B 5.9H 4.9B 5.7H 4.9B	4B 5B	2.8H	0.8	0.07	0.05	0.06J		3.72D	
0 - 0.1	5B 5.9H 4.9B 5.7H 4.9B	4B 5B	2.8H	0.8	0.07	0.05	0.06J		3.72D	
0 - 0.1	5B 5.9H 4.9B 5.7H 4.9B	4B 5B	2.8H	0.8	0.07	0.05	0.06J		3.72D	
0 - 0.1	5B 5.9H 4.9B 5.7H 4.9B	4B 5B	2.8H	0.8	0.07	0.05	0.06J		3.72D	
0.1 - 0.15	4.6B 5.6H	1B	0.52H	0.26	0.04	0.03	0.27J		0.85D	
0.1 - 0.15	4.6B 5.6H	1B	0.52H	0.26	0.04	0.03	0.27J		0.85D	
0.15 - 0.45	4.5B 5.6H	1B	0.17H	0.21	0.04	0.03	0.3J		0.45D	
0.15 - 0.45	4.5B 5.6H	1B	0.17H	0.21	0.04	0.03	0.3J		0.45D	
0.15 - 0.25	4.5B									
0.3 - 0.4	4.7B									
0.45 - 0.65	5.5B 6.2H	1B	0.13H	0.62	0.08	0.08	0.08J		0.91D	
0.45 - 0.65	5.5B 6.2H	1B	0.13H	0.62	0.08	0.08	0.08J		0.91D	
0.65 - 0.85	5.4B 5.7H	7B	0.08H	3.2	0.04	0.35	<0.02J		3.67D	
0.65 - 0.85	5.4B 5.7H	7B	0.08H	3.2	0.04	0.35	<0.02J		3.67D	
0.85 - 0.9	5.5B 5.6H	10B	0.06H	4.4	0.02	0.52	<0.02J		5D	
0.85 - 0.9	5.5B 5.6H	10B	0.06H	4.4	0.02	0.52	<0.02J		5D	
0.9 - 1.2	5.8B 5.7H	12B	0.1H	4.6	0.02	0.59	<0.02J		5.31D	
0.9 - 1.2	5.8B 5.7H	12B	0.1H	4.6	0.02	0.59	<0.02J		5.31D	

1.2 - 1.4	5.6B 5.6H	13B	0.03H	4.6	<0.02	0.56	<0.02J	5.2D
1.2 - 1.4	5.6B 5.6H	13B	0.03H	4.6	<0.02	0.56	<0.02J	5.2D

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	GV	Particle Size Analysis CS	FS %	Silt	Clay
0 - 0.1		1.62D 1.83D		110B 120B	0.097E 0.107E						3.2	3.1
0 - 0.1		1.62D 1.83D		110B 120B	0.097E 0.107E						3.2	3.1
0 - 0.1		1.62D 1.83D		110B 120B	0.097E 0.107E						3.2	3.1
0 - 0.1		1.62D 1.83D		110B 120B	0.097E 0.107E						3.2	3.1
0 - 0.1		1.62D 1.83D		110B 120B	0.097E 0.107E						3.2	3.1
0.1 - 0.15		0.5D		52B	0.028E						3.1	3.7
0.1 - 0.15		0.5D		52B	0.028E						3.1	3.7
0.15 - 0.45		0.29D		42B	0.017E						3.3	4.5
0.15 - 0.45		0.29D		42B	0.017E						3.3	4.5
0.15 - 0.25												
0.3 - 0.4												
0.45 - 0.65		0.14D		43B	0.011E						3.5	7.8
0.45 - 0.65		0.14D		43B	0.011E						3.5	7.8
0.65 - 0.85		0.09D		41B	0.008E						6.1	48.2
0.65 - 0.85		0.09D		41B	0.008E						6.1	48.2
0.85 - 0.9		0.08D		38B	0.006E						7.6	58.1
0.85 - 0.9		0.08D		38B	0.006E						7.6	58.1
0.9 - 1.2		0.06D		32B	0.005E						3.2	54
0.9 - 1.2		0.06D		32B	0.005E						3.2	54
1.2 - 1.4		0.07D		36B	0.006E						6.4	58
1.2 - 1.4		0.07D		36B	0.006E						6.4	58

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
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
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
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)