

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 0160 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Heather Percy	Locality:	
Date Desc.:	14/04/92	Elevation:	319 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6271790 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	554330 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:	4 %	Aspect:	270 degrees

Surface Soil Condition Loose

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

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Ferric Mottled-Subnatric Yellow Sodosol	Principal Profile Form:	Dy5.62
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 20-50%, medium gravelly, 6-20mm, rounded, ; No surface coarse fragments

Profile

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); , 0-0% ; Loamy fine sand; Single grain grade of structure; Dry; 20-50%, medium gravelly, 6-20mm, rounded, Ironstone, coarse fragments; Field pH 5 (Raupach); Many, fine (1-2mm) roots; Abrupt, Smooth change to -
A2	0.1 - 0.3 m	Yellowish brown (10YR5/4-Moist); , 0-0% ; Clayey coarse sand; Single grain grade of structure; Dry; 20-50%, medium gravelly, 6-20mm, rounded, Ironstone, coarse fragments; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Clear, Tongued change to -
B2t	0.3 - 1 m	Brownish yellow (10YR6/8-Moist); Mottles, 5YR58, 10-20% , 15-30mm, Distinct; Sandy light clay; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; 20-50%, fine gravelly, 2-6mm, subangular, Ironstone, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Gradual, Wavy change to -
C	1 - 1.5 m	White (10YR8/2-Moist); Mottles, 10YR68, 20-50% , 15-30mm, Distinct; Mottles, 2.5YR48, 20-50% , 15-30mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Field pH 8 (Raupach);

Morphological Notes

A1	+ 3 R IS
A2	+ 3 R IS
B2t	BELOW 60CM PARTIAL DISPERSION. VERY COARSE OLD ROOTS STOP AT TOP OF
L4	
C	KAOLINITE. SUBPLASTIC.

Observation Notes

Site Notes

Water movement through preferred flowpaths

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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 - 0.1	5B 5.8H 5.1B 6H	8B 7B	3H	0.88	0.23	0.11	0.15J		4.22D	
0 - 0.1	5B 5.8H 5.1B 6H	8B 7B	3H	0.88	0.23	0.11	0.15J		4.22D	
0 - 0.1	5B 5.8H 5.1B 6H	8B 7B	3H	0.88	0.23	0.11	0.15J		4.22D	
0 - 0.11	4.88B									
0 - 0.1	5B 5.8H 5.1B 6H	8B 7B	3H	0.88	0.23	0.11	0.15J		4.22D	
0.1 - 0.3	5.2B 6.3H	2B	1.05H	0.54	0.07	0.04	0.06J		1.7D	
0.1 - 0.3	5.2B 6.3H	2B	1.05H	0.54	0.07	0.04	0.06J		1.7D	
0.16 - 0.26	5.03B									
0.3 - 0.5	5.9B 6.6H	6B	1.06A	3.35	0.13	0.33			4.87D	
0.3 - 0.6	5.7B 6.6H	4B	0.89H	2.29	0.08	0.22	0.03J		3.48D	
0.3 - 0.6	5.7B 6.6H	4B	0.89H	2.29	0.08	0.22	0.03J		3.48D	
0.3 - 0.5	5.9B 6.6H	6B	1.06A	3.35	0.13	0.33			4.87D	
0.41 - 0.51	5.88B									
0.6 - 1	6.8B 7.8H	11B	0.46A	6.71	0.08	0.97			8.22D	
0.6 - 1	6.8B 7.8H	11B	0.46A	6.71	0.08	0.97			8.22D	
1 - 1.5	6.9B 7.6H	29B	0.11A	8.2	0.04	1.81			10.16D	
1 - 1.5	6.9B 7.6H	29B	0.11A	8.2	0.04	1.81			10.16D	

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS	Analysis Silt
0 - 0.1 6.6		1.85D		260B	0.13E					4.4
0 - 0.1 6.6		2.06D 1.85D		240B 260B	0.153E 0.13E					4.4
0 - 0.1 6.6		2.06D 1.85D		240B 260B	0.153E 0.13E					4.4
0 - 0.11		2.06D		240B	0.153E					

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0 - 0.1 6.6	1.85D	260B	0.13E	4.4
0.1 - 0.3 8.3	2.06D 0.38D	240B 70B	0.153E 0.02E	3.4
0.1 - 0.3 8.3	0.38D	70B	0.02E	3.4
0.16 - 0.26 0.3 - 0.5 50				44.5l 5.5
0.3 - 0.6 32.1	0.21D	53B	0.01E	3.7
0.3 - 0.6 32.1	0.21D	53B	0.01E	3.7
0.3 - 0.5 50				44.5l 5.5
0.41 - 0.51 0.6 - 1 58.7	0.18D	73B	0.01E	5.4
0.6 - 1 58.7	0.18D	73B	0.01E	5.4
1 - 1.5 56.2	0.8D	110B	0.005E	14.4
1 - 1.5 56.2	0.8D	110B	0.005E	14.4

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	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
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15E1_AL	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15E1_CA	salts
15E1_K	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_MN	salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts
15L1_a	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
Sum of Cations	Sum of Bases
15N1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
15N1_b	and measured clay
18A1_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
3_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
4_NR	Bicarbonate-extractable potassium (not recorded)
4B_AL_NR	Electrical conductivity or soluble salts - Not recorded
4B1	pH of soil - Not recorded
6A1_UC	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
7A1	pH of 1:5 soil/0.01M calcium chloride extract - direct
9A3	Organic carbon (%) - Uncorrected Walkley and Black method
9B_NR	Total nitrogen - semimicro Kjeldahl, steam distillation
9H1	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_1m2m	Bicarbonate-extractable phosphorus (not recorded)
	Anion storage capacity
	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_S	Sand (%) - 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)

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