

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 0159 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By: Heather Percy	Locality:
Date Desc.: 14/04/92	Elevation: 307 metres
Map Ref.:	Rainfall: No Data
Northing/Long.: 6270990 AMG zone: 50	Runoff: No Data
Easting/Lat.: 554610 Datum: AGD84	Drainage: Poorly 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: Lower-slope	Relief: 30 metres
Elem. Type: Hillslope	Slope Category: No Data
Slope: 1 %	Aspect: 180 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Eutrophic Mottled-Hypernatric Grey Sodosol	Principal Profile Form: Dg2.12
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 2-10%, medium gravelly, 6-20mm, angular, Quartz; No surface coarse fragments

Profile

A1	0 - 0.15 m	Very dark grey (10YR3/1-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Field pH 5.5 (Raupach); Many, fine (1-2mm) roots; Sharp, Wavy change to -
B21	0.15 - 0.2 m	Very pale brown (10YR7/3-Moist); Mottles, 7.5YR76, 10-20% , 0-5mm, Distinct; Clay loam, coarse sandy; Strong grade of structure, 200-500 mm, Columnar; Rough-ped fabric; Dry; 10-20%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
B22t	0.2 - 1 m	Light grey (10YR7/2-Moist); Mottles, 7.5YR58, 20-50% , 0-5mm, Distinct; Coarse sandy light medium clay; Strong grade of structure, 200-500 mm, Prismatic; Smooth-ped fabric; Dry; Field pH 6.5 (Raupach); Few, fine (1-2mm) roots; Gradual, Smooth change to -
C	1 - 1.4 m	White (10YR8/2-Moist); , 0-0% ; Light clay; Wet; Field pH 7 (Raupach);

Morphological Notes

B22t PROMINENT CLAY/ORGANIC MATTER CUTANS ON EVERY COARSE PED
C PALLID ZONE KAOLINITE CLAY - TOO WET TO DESCRIBE

Observation Notes

Site Notes

Water in bottom of pit - sample collected

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Cations	Na	Exchangeable Acidity	CEC	ECEC	ESP
				Mg K					

m	dS/m		Cmol (+)/kg						%
0 - 0.15	5.1B 6.1H	8B	5.44H	1.87	0.12	0.3	0.13J	7.73D	
0 - 0.1	5.1B 6.1H	11B							
0 - 0.15	5.1B 6.1H	8B	5.44H	1.87	0.12	0.3	0.13J	7.73D	
0 - 0.11	5.14B								
0 - 0.1	5.1B 6.1H	11B							
0.15 - 0.2	5.8B 7H	20B	0.6A	3.36	0.14	1.71		5.81D	
0.15 - 0.2	5.8B 7H	20B	0.6A	3.36	0.14	1.71		5.81D	
0.2 - 1	5.8B 6.8H	34B	0.82A	3.85	0.14	1.62		6.43D	
0.2 - 1	5.8B 6.8H	34B	0.82A	3.85	0.14	1.62		6.43D	
0.41 - 0.51	5.2B								

Depth	CaCO ₃	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis	
m	%	%	mg/kg	%	%	%	Mg/m ³	GV CS FS Silt	
0 - 0.15 11.5		2.58D		200B	0.131E				5.4
0 - 0.1		2.24D		180B	0.126E				
0 - 0.15 11.5		2.58D		200B	0.131E				5.4
0 - 0.11									
0 - 0.1		2.24D		180B	0.126E				
0.15 - 0.2 31.6		0.3D		38B	0.012E				2.5
0.15 - 0.2 31.6		0.3D		38B	0.012E				2.5
0.2 - 1 31.6		0.33D		48B	0.015E				3
0.2 - 1 31.6		0.33D		48B	0.015E				3
0.41 - 0.51									

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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 (Mn ²⁺) by compulsive exchange, no pretreatment for soluble salts

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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)
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)