

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 2336 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By: Heather Percy
Date Desc.: 21/09/95
Map Ref.:
Northing/Long.: 6312180 AMG zone: 50
Easting/Lat.: 587360 Datum: AGD84
Locality:
Elevation: 340 metres
Rainfall: No Data
Runoff: No Data
Drainage: Well drained

Geology

ExposureType: Soil pit
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: 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
Elem. Type: Hillslope
Slope: 3 %
Relief: 50 metres
Slope Category: No Data
Aspect: 0 degrees

Surface Soil Condition Surface flake

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

Soil Classification

Australian Soil Classification:
 Hyperbasic Pedal Hypocalcic Calcarosol
ASC Confidence:
 All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gc2.21
Great Soil Group: N/A

Site Cultivation. Rainfed

Vegetation:

Surface Coarse 2-10%, medium gravelly, 6-20mm, rounded, ; 2-10%, , rounded, Dolerite

Profile

Ap	0 - 0.1 m	Reddish brown (5YR4/4-Moist); , 0-0% ; Clay loam; Massive grade of structure; Dry; Weak consistence; Soil matrix is Very highly calcareous; Field pH 9 (Raupach); Abrupt, Smooth change to -
B21	0.1 - 0.3 m	Yellowish red (5YR4/6-Moist); , 0-0% ; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Rough-ped fabric; Dry; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated; Soil matrix is Very highly calcareous; Field pH 9.5 (Raupach); Clear change to -
B22	0.3 - 0.7 m	Yellowish red (5YR4/6-Moist); , 0-0% ; Medium heavy clay; Strong grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Firm consistence; Soil matrix is Highly calcareous; Field pH 9.5 (Raupach); Gradual change to -
B23	0.7 - 1.15 m	Red (2.5YR4/6-Moist); , 0-0% ; Medium heavy clay; Strong grade of structure, 50-100 mm, Polyhedral; Smooth-ped fabric; Firm consistence; Common cutans, 10-50% of ped faces or walls coated; Soil matrix is Highly calcareous; Field pH 9.5 (Raupach);

Morphological Notes

Observation Notes

Site Notes

in a wheat crop. Soil surface is calcareous. Classified incorrectly in the Katanning survey report (Percy, 2000)

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%

0 - 0.1	8B 8.9H	23B	17.84E	6.67	1.9	1.87		26B	28.28D	7.19
0 - 0.1	8B 8.9H	23B	17.84E	6.67	1.9	1.87		26B	28.28D	7.19
0.1 - 0.3	8.6B 9.6H	64B	9.72E	12.46	1.13	11.28		34B	34.59D	33.18
0.1 - 0.3	8.6B 9.6H	64B	9.72E	12.46	1.13	11.28		34B	34.59D	33.18
0.3 - 0.7	8.9B 9.6H	108B	3.48E	14.92	1.25	25.52		38B	45.17D	67.16
0.3 - 0.7	8.9B 9.6H	108B	3.48E	14.92	1.25	25.52		38B	45.17D	67.16
0.7 - 1	8.9B 9.4H	131B	3.2E	14.84	1.11	26.6		43B	45.75D	61.86
0.7 - 1	8.9B 9.4H	131B	3.2E	14.84	1.11	26.6		43B	45.75D	61.86

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 - 0.1 33.5	11C	1.18D		260B	0.111E				15.5
0 - 0.1 33.5	11C	1.18D		260B	0.111E				15.5
0.1 - 0.3 29.8	17C	0.59D		120B	0.055E				18.2
0.1 - 0.3 29.8	17C	0.59D		120B	0.055E				18.2
0.3 - 0.7 51	13C	0.18D		58B	0.019E				8.5
0.3 - 0.7 51	13C	0.18D		58B	0.019E				8.5
0.7 - 1 49.8	10C	0.14D		50B	0.016E				10.2
0.7 - 1 49.8	10C	0.14D		50B	0.016E				10.2

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
15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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
19B_NR	Calcium Carbonate (CaCO ₃) - 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

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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)