

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 0141 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By: Heather Percy	Locality:
Date Desc.: 04/12/91	Elevation: 319 metres
Map Ref.:	Rainfall: No Data
Northing/Long.: 6330140 AMG zone: 50	Runoff: No Data
Easting/Lat.: 499670 Datum: AGD84	Drainage: Rapidly 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: 50 metres
Elem. Type: Hillslope	Slope Category: No Data
Slope: 4 %	Aspect: 180 degrees

Surface Soil Condition Loose

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

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Ferric Mottled-Subnatic Yellow Sodosol	Principal Profile Form: Dy5.81
ASC Confidence:	Great Soil Group: N/A

Analytical data are incomplete but reasonable confidence.

Site Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse No surface coarse fragments; No surface coarse fragments

Profile

A1 0 - 0.14 m (grains)	Black (7.5YR2/0-Moist); , 0-0% ; Coarse sand; Single grain grade of structure; Sandy prominent) fabric; Dry; 0-2%, Quartz, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 5.5 (Raupach); Abundant, fine (1-2mm) roots; Abrupt change to -
A21e 0.14 - 0.5 m Sandy (grains -6 mm),	Yellowish brown (10YR5/4-Moist); , 0-0% ; Coarse sand; Massive grade of structure; prominent) fabric; Dry; 2-10%, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 6 (Raupach); Many, fine (1-2mm) roots; Clear, Smooth change to -
A22ec 0.5 - 0.76 m (grains Ferruginous, Coarse (6 Smooth change to	Pale brown (10YR6/3-Moist); , 0-0% ; Coarse sand; Massive grade of structure; Sandy prominent) fabric; Dry; 50-90%, Ironstone, coarse fragments; Many (20 - 50 %), - 20 mm), Concretions; Field pH 6.5 (Raupach); Common, fine (1-2mm) roots; Clear, -
B21c 0.76 - 0.9 m sandy clay fragments; Very (Raupach); Common,	Brownish yellow (10YR6/8-Moist); Mottles, 10YR72, 20-50% , 15-30mm, Distinct; Coarse loam; Massive grade of structure; Rough-ped fabric; Dry; 50-90%, Ironstone, coarse many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Concretions; Field pH 6.5 fine (1-2mm) roots; Clear, Smooth change to -
B22t 0.9 - 1.05 m coarse sandy; Few (2 - 10	Brownish yellow (10YR6/8-Moist); Mottles, 10YR71, 10-20% , 30-mm, Distinct; Clay loam, Massive grade of structure; Rough-ped fabric; Dry; 2-10%, Ironstone, coarse fragments; %, Ferruginous, Medium (2 -6 mm), Concretions; Field pH 6 (Raupach);

Morphological Notes

A1 F S QZ & F U IS HUMIC

A21e	F U QZ & IS KS<1MM
A22ec	F,M & F C U IS KS<1MM
B21c	F,M U IS V.HARD CEMENTED
B22t	M IS

Observation Notes

Site Notes

ESP of upper B2 (76-90 cm) is 5.7, because dispersion was observed, this profile was classified as a Subnatric Sodosol. This profile should be treated as a Reference profile rather than a Typifying profile.

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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 - 0.14	4.6B 5.5H	6B	2.98H	0.46	0.08	0.09	0.16J		3.61D	
0 - 0.14	4.6B 5.5H	6B	2.98H	0.46	0.08	0.09	0.16J		3.61D	
0.14 - 0.5	4.6B 5.9H	1B	0.55H	0.24	<0.02	0.02	0.23J		0.82D	
0.14 - 0.5	4.6B 5.9H	1B	0.55H	0.24	<0.02	0.02	0.23J		0.82D	
0.5 - 0.76	4.9B 6.2H	1B	0.18H	0.32	0.02	0.02	0.06J		0.54D	
0.5 - 0.76	4.9B 6.2H	1B	0.18H	0.32	0.02	0.02	0.06J		0.54D	
0.76 - 0.9	5.3B 5.9H	4B	0.55H	2.5	0.08	0.19	<0.02J		3.32D	
0.76 - 0.9	5.3B 5.9H	4B	0.55H	2.5	0.08	0.19	<0.02J		3.32D	
0.9 - 1.05	5.2B 5.8H	3B	0.36H	2.62	0.06	0.11	<0.02J		3.15D	
0.9 - 1.05	5.2B 5.8H	3B	0.36H	2.62	0.06	0.11	<0.02J		3.15D	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.14 2.6		1.76D		100B	0.097E			2.7
0 - 0.14 2.6		1.76D		100B	0.097E			2.7
0.14 - 0.5 3.9		0.37D		27B	0.011E			2.2
0.14 - 0.5 3.9		0.37D		27B	0.011E			2.2
0.5 - 0.76 4.1		0.14D		22B	0.006E			3.3
0.5 - 0.76 4.1		0.14D		22B	0.006E			3.3
0.76 - 0.9 25		0.14D		20B	0.007E			4.5
0.76 - 0.9 25		0.14D		20B	0.007E			4.5
0.9 - 1.05 33.8		0.13D		21B	0.008E			3.8
0.9 - 1.05 33.8		0.13D		21B	0.008E			3.8

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
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

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

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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)