

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 2321 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By: Heather Percy	Locality:
Date Desc.: 13/04/95	Elevation: 290 metres
Map Ref.:	Rainfall: No Data
Northing/Long.: 6330640 AMG zone: 50	Runoff: No Data
Easting/Lat.: 519100 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: Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

Morph. Type: Upper-slope	Relief: 10 metres
Elem. Type: Hillslope	Slope Category: No Data
Slope: 3 %	Aspect: 180 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification: N/A	Mapping Unit: N/A
ASC Confidence: Confidence level not specified	Principal Profile Form: Dg2.82
	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 - 0.08 m structure; Dry; Field pH 6.5	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Loamy coarse sand; Massive grade of structure; Dry; Very firm consistence; 10-20%, fine gravelly, 2-6mm, subrounded, , coarse fragments; (Raupach); Sharp, Smooth change to -
A21 0.08 - 0.2 m Very firm (Raupach);	Brown (10YR5/3-Moist); , 0-0% ; Clayey coarse sand; Massive grade of structure; Dry; consistence; 10-20%, fine gravelly, 2-6mm, subrounded, , coarse fragments; Field pH 7.5 Clear, Wavy change to -
A22e 0.2 - 0.4 m structure; Dry; Very medium Wavy change to -	Light brownish grey (2.5Y6/3-Moist); , 0-0% ; Clayey coarse sand; Massive grade of firm consistence; 20-50%, fine gravelly, 2-6mm, subrounded, , coarse fragments; 10-20%, gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 7.5 (Raupach); Abrupt,
B2 0.4 - 0.7 m 2.5YR56, 2-10% , 5- strong	Light grey (10YR7/2-Moist); Mottles, 10YR66, 2-10% , 5-15mm, Distinct; Mottles, 15mm, Distinct; Coarse sandy light medium clay; Massive grade of structure; Dry; Very consistence; Field pH 8 (Raupach);
B3 0.7 - 1.7 m 2.5YR56, 10-20% , ped fabric; Dry;	Light grey (10YR7/2-Moist); Mottles, 10YR66, 10-20% , 15-30mm, Distinct; Mottles, 15-30mm, Distinct; Light clay; Weak grade of structure, 20-50 mm, Polyhedral; Rough- Very strong consistence; Field pH 7.5 (Raupach); Clear change to -
C 1.7 - 2.2 m loam; Massive	Very pale brown (10YR7/4-Moist); Mottles, 2.5YR56, 20-50% , 15-30mm, Distinct; Clay grade of structure; Dry; Strong consistence; Field pH 7.5 (Raupach);

Morphological Notes

C Weathered kaolinised granite

Observation Notes

Site Notes

Soil pit on B. Weise - Chuckem Gully Catchment - Moderately drained sandy duplex LMU

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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 - 0.08	5.5B 6.4H	7B	6.5H	0.88	0.45	0.1	0.07J		7.93D	
0 - 0.08	5.5B 6.4H	7B	6.5H	0.88	0.45	0.1	0.07J		7.93D	
0 - 0.1	5.5B 6.4H	6B								
0 - 0.1	5.5B 6.4H	6B								
0.08 - 0.2	5.9B 7.1H	2B	0.8A	0.35	0.17	0.06			1.38D	
0.08 - 0.2	5.9B 7.1H	2B	0.8A	0.35	0.17	0.06			1.38D	
0.2 - 0.4	6.2B 7.2H	2B	1.8A	0.46	0.22	0.04			2.52D	
0.2 - 0.4	6.2B 7.2H	2B	1.8A	0.46	0.22	0.04			2.52D	
0.4 - 0.6	6.9B 7.9H	4B	1.8A	1.8	0.39	0.14			4.13D	
0.4 - 0.6	6.9B 7.9H	4B	1.8A	1.8	0.39	0.14			4.13D	
0.6 - 0.7	6.9B 7.9H	5B	2A	2	0.25	0.2			4.45D	
0.6 - 0.7	6.9B 7.9H	5B	2A	2	0.25	0.2			4.45D	
0.7 - 1	6.4B 7.1H	8B	0.91A	2.5	0.12	0.32			3.85D	
0.7 - 1	6.4B 7.1H	8B	0.91A	2.5	0.12	0.32			3.85D	

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 - 0.08 5.5		2.7D		240B	0.164E					5.2
0 - 0.08 5.5		2.7D		240B	0.164E					5.2
0 - 0.1 0 - 0.1		2.64D 2.64D		210B 210B	0.147E 0.147E					
0.08 - 0.2 5.2		0.58D		44B	0.026E					4.3
0.08 - 0.2 5.2		0.58D		44B	0.026E					4.3
0.2 - 0.4 4.4		0.22D		30B	0.014E					3.8
0.2 - 0.4 4.4		0.22D		30B	0.014E					3.8
0.4 - 0.6 37.9		0.2D		33B	0.012E					5.9
0.4 - 0.6 37.9		0.2D		33B	0.012E					5.9
0.6 - 0.7 35.6		0.26D		28B	0.015E					6.4
0.6 - 0.7 35.6		0.26D		28B	0.015E					6.4

0.7 - 1 48.2	0.12D	29B	0.006E	11.9
0.7 - 1 48.2	0.12D	29B	0.006E	11.9

Laboratory Analyses Completed for this profile

15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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15_NR_CMV	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
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
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases
15L1_a Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using 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
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)