

**Project Name:** Katanning land resources survey  
**Project Code:** KLC **Site ID:** 2319 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

**Desc. By:** Heather Percy  
**Date Desc.:** 13/04/95  
**Map Ref.:**  
**Northing/Long.:** 6330730 AMG zone: 50  
**Easting/Lat.:** 518710 Datum: AGD84  
**Elevation:** 290 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:** Gently undulating rises 9-30m 1-3%  
**Pattern Type:** Rises

**Morph. Type:** Mid-slope  
**Elem. Type:** Hillslope  
**Slope:** 3 %  
**Relief:** 10 metres  
**Slope Category:** No Data  
**Aspect:** 270 degrees

**Surface Soil Condition** Loose

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

**Soil Classification**

**Australian Soil Classification:** N/A  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dy4.82  
**ASC Confidence:** Confidence level not specified  
**Great Soil Group:** N/A

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

**Vegetation:**

**Surface Coarse** 20-50%, medium gravelly, 6-20mm, subrounded, ; 20-50%, , subrounded,

**Profile**

<p>A1p 0 - 0.08 m structure; Dry;  10-20%, coarse (Raupach);</p>	<p>Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Loamy sand; Single grain grade of Loose consistence; 20-50%, medium gravelly, 6-20mm, subrounded, , coarse fragments; gravelly, 20-60mm, subrounded, , coarse fragments; Strongly water repellent, "Field pH 6 Abundant, very fine (0-1mm) roots; Sharp, Smooth change to -</p>
<p>A21 0.08 - 0.2 m consistence; 20- 20mm, Clear, Smooth</p>	<p>Yellowish brown (10YR5/4-Moist); , 0-0% ; Single grain grade of structure; Dry; Loose 50%, fine gravelly, 2-6mm, subrounded, , coarse fragments; 20-50%, medium gravelly, 6- subrounded, , coarse fragments; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; change to -</p>
<p>A22e 0.2 - 0.35 m consistence;  gravelly, 6-20mm, coarse fragments;</p>	<p>Light yellowish brown (2.5Y6/4-Moist); , 0-0% ; Single grain grade of structure; Dry; Loose 20-50%, fine gravelly, 2-6mm, subrounded, , coarse fragments; 20-50%, medium subrounded, , coarse fragments; 10-20%, coarse gravelly, 20-60mm, subrounded, , Field pH 7 (Raupach); Many, very fine (0-1mm) roots; Clear, Irregular change to -</p>
<p>B2w 0.35 - 0.55 m consistence; 20-50%, 20mm, subrounded, , Field pH 7</p>	<p>Yellowish brown (10YR5/6-Moist); , 0-0% ; Massive grade of structure; Dry; Loose fine gravelly, 2-6mm, subrounded, , coarse fragments; 20-50%, medium gravelly, 6- coarse fragments; 20-50%, coarse gravelly, 20-60mm, subrounded, , coarse fragments; (Raupach); Many, very fine (0-1mm) roots; Sharp, Wavy change to -</p>
<p>C11 0.55 - 1.2 m clay loam; fragments; Many</p>	<p>Yellowish brown (10YR5/8-Moist); Mottles, 7.5R34, 20-50% , 15-30mm, Distinct; Sandy Massive grade of structure; Dry; 50-90%, fine gravelly, 2-6mm, subrounded, , coarse</p>

fine (0-1mm)		(20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Field pH 7 (Raupach); Few, very roots; Gradual change to -
C12	1.2 - 1.8 m	Brownish yellow (10YR6/6-Moist); Mottles, 10R46, 20-50% , 15-30mm, Distinct; Clay loam, sandy;
fragments; Many		Massive grade of structure; Dry; 50-90%, fine gravelly, 2-6mm, subrounded, , coarse (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Field pH 7 (Raupach);

**Morphological Notes**

A21	-CMS
A22e	WCMS
B2w	Possibly weathered ferricrete boulders - MSCL
C11	Petroreticulite roots mainly in channels; gravel broken into fragments

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C12 Gravels broken into fragments; petroreticulite

**Observation Notes**

**Site Notes**

Soil pit on B. Weise - Chuckem Gully Catchment - gravelly slopes and ridges 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 6.2H	8B	12H	1.2	0.36	0.12	0.06J		13.68D	
0 - 0.08	5.5B 6.2H	8B	12H	1.2	0.36	0.12	0.06J		13.68D	
0 - 0.1	5.5B 6.2H	8B								
0 - 0.1	5.5B 6.2H	8B								
0.08 - 0.2	6B 6.9H	2B	3.8A	0.6	0.24	0.09			4.73D	
0.08 - 0.2	6B 6.9H	2B	3.8A	0.6	0.24	0.09			4.73D	
0.2 - 0.35	6.3B 7.3H	2B	2.2A	0.58	0.15	0.1			3.03D	
0.2 - 0.35	6.3B 7.3H	2B	2.2A	0.58	0.15	0.1			3.03D	
0.35 - 0.55	6.3B 7.2H	3B	2.7A	2.2	0.24	0.17			5.31D	
0.35 - 0.55	6.3B 7.2H	3B	2.7A	2.2	0.24	0.17			5.31D	
0.35 - 0.55	6.3B 7.2H	3B	2.7A	2.2	0.24	0.17			5.31D	
0.55 - 0.85	6.4B 7.1H	3B	1.8A	2.2	0.07	0.23			4.3D	
0.55 - 0.85	6.4B 7.1H	3B	1.8A	2.2	0.07	0.23			4.3D	
0.85 - 1.2	6.3B 7H	3B	1.3A	2.2	0.03	0.28			3.81D	
0.85 - 1.2	6.3B 7H	3B	1.3A	2.2	0.03	0.28			3.81D	
1.2 - 1.5	6.5B 7.2H	4B	1A	2.7	0.03	0.34			4.07D	
1.2 - 1.5	6.5B 7.2H	4B	1A	2.7	0.03	0.34			4.07D	

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 2.6		4.55D		440B	0.291E					4.9
0 - 0.08 2.6		4.55D		440B	0.291E					4.9
0 - 0.1		4.68D		440B	0.281E					
0 - 0.1		4.68D		440B	0.281E					
0.08 - 0.2 4.1		1.05D		93B	0.057E					4.7
0.08 - 0.2 4.1		1.05D		93B	0.057E					4.7

0.2 - 0.35 5.3	0.36D	38B	0.021E	3.8
0.2 - 0.35 5.3	0.36D	38B	0.021E	3.8
0.35 - 0.55 17.6	0.31D	48B	0.023E	6
0.35 - 0.55 17.6	0.31D	48B	0.023E	6
0.35 - 0.55 17.6	0.31D	48B	0.023E	6
0.55 - 0.85 18	0.12D	35B	0.009E	5.1

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0.55 - 0.85 18	0.12D	35B	0.009E	5.1
0.85 - 1.2 17.4	0.09D	35B	0.008E	6.3
0.85 - 1.2 17.4	0.09D	35B	0.008E	6.3
1.2 - 1.5 15.2	0.07D	24B	0.005E	5.5
1.2 - 1.5 15.2	0.07D	24B	0.005E	5.5

**Laboratory Analyses Completed for this profile**

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMCR	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, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15L1_a	Sum of Bases
Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
15N1_a	and measured clay
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
18A1_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
3_NR	Bicarbonate-extractable potassium (not recorded)
4_NR	Electrical conductivity or soluble salts - Not recorded
4B1	pH of soil - Not recorded
6A1_UC	pH of 1:5 soil/0.01M calcium chloride extract - direct
7A1	Organic carbon (%) - Uncorrected Walkley and Black method
9A3	Total nitrogen - semimicro Kjeldahl, steam distillation
9B_NR	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9H1	Bicarbonate-extractable phosphorus (not recorded)
P10_1m2m	Anion storage capacity
P10_20_75	1000 to 2000u particle size analysis, (method not recorded)
P10_75_106	20 to 75u particle size analysis, (method not recorded)
P10_gt2m	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	> 2mm particle size analysis, (method not recorded)
P10_NR_Saa	Clay (%) - Not recorded
P10_NR_Z	Sand (%) - Not recorded arithmetic difference, auto generated
P10106_150	Silt (%) - Not recorded
P10150_180	106 to 150u particle size analysis, (method not recorded)
P10180_300	150 to 180u particle size analysis, (method not recorded)
P10300_600	180 to 300u particle size analysis, (method not recorded)
P106001000	300 to 600u particle size analysis, (method not recorded)
	600 to 1000u particle size analysis, (method not recorded)