

**Project Name:** Katanning land resources survey  
**Project Code:** KLC **Site ID:** 0796 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Heather Percy	<b>Locality:</b>	
<b>Date Desc.:</b>	13/05/93	<b>Elevation:</b>	345 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6342840 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	547410 Datum: AGD84	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

#### Land Form

**Rel/Slope Class:** Undulating low hills 30-90m 3-10% **Pattern Type:** Low hills

<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	30 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	270 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
N/A		<b>Principal Profile Form:</b>	Dr2.13
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
Confidence level not specified			

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

#### Vegetation:

**Surface Coarse** 10-20%, medium gravelly, 6-20mm, angular, Quartz; 2-10%, , subangular, Granite

#### Profile

Ap	0 - 0.05 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Clay loam, sandy; Weak grade of structure, 10-20 mm, Polyhedral; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Abrupt, Wavy change to -
B2tk	0.05 - 0.5 m	Red (2.5YR4/6-Moist); , 0-0% ; Medium clay; Moderate grade of structure, 50-100 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 9 (Raupach); Few, very fine (0-1mm) roots; Clear, Wavy change to -
C	0.5 - 1.3 m	; Light medium clay; Massive grade of structure; Moderately moist; Very firm consistence; Field pH 9.5 (Raupach);

#### Morphological Notes

Ap	Also some black gravel
B2tk	Top 5cm of this layer often mixed with layer 1 due to cultivation
C	Weathered gneiss, banded red clay and coarse yellow and white weathered rock

#### Observation Notes

#### Site Notes

East Narrogin catchment (Geoff Ballard)

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#### Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations	Exchangeable	CEC	ECEC	ESP
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m	dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity				%
0 - 0.05	6B 7H	9B	4.5A	4	0.86	1				10.36D
0 - 0.1	5.7B 6.9H 5.7B 5.7B 6.9H 5.7B	10B								
0 - 0.05	6B 7H	9B	4.5A	4	0.86	1				10.36D
0 - 0.1	5.7B 6.9H 5.7B 5.7B 6.9H 5.7B	10B								
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0 - 0.1	5.7B 6.9H 5.7B 5.7B 6.9H 5.7B	10B								
0 - 0.1	5.7B 6.9H 5.7B 5.7B 6.9H 5.7B	10B								
0 - 0.1	5.7B 6.9H 5.7B 5.7B 6.9H 5.7B	10B								
0.05 - 0.25	7.1B 8.5H	16B	3.4E	5.8	0.47	2.6	14B	12.27D		18.57
0.05 - 0.25	7.1B 8.5H	16B	3.4E	5.8	0.47	2.6	14B	12.27D		18.57
0.15 - 0.25	7.4B									
0.25 - 0.5	8.3B 9.4H	34B	3E	8.2	0.54	4.7	18B	16.44D		26.11
0.25 - 0.5	8.3B 9.4H	34B	3E	8.2	0.54	4.7	18B	16.44D		26.11
0.4 - 0.5	8.1B									

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0.5 - 0.8	8.4B 9.7H	23B	1.9E	5.8	0.42	4.4	14B	12.52D	31.43
0.5 - 0.8	8.4B 9.7H	23B	1.9E	5.8	0.42	4.4	14B	12.52D	31.43

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size	Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS	Silt
0 - 0.05 15.3		1.32D		220B	0.088E				12.2
0 - 0.1		1.31D		220B	0.084E				
0 - 0.05 15.3		1.32D		220B	0.088E				12.2
0 - 0.1		1.31D		220B	0.084E				
0 - 0.1		1.31D		220B	0.084E				
0 - 0.1		1.31D		220B	0.084E				
0 - 0.1		1.31D		220B	0.084E				
0 - 0.1		1.31D		220B	0.084E				
0 - 0.1		1.31D		220B	0.084E				
0 - 0.1		1.31D		220B	0.084E				
0.05 - 0.25 29	<2C	0.35D		78B	0.023E				8
0.05 - 0.25 29	<2C	0.35D		78B	0.023E				8
0.15 - 0.25 42.7	<2C	0.17D		61B	0.014E				9.9
0.25 - 0.5 42.7	<2C	0.17D		61B	0.014E				9.9
0.4 - 0.5 34.2	<2C	0.09D		82B	0.007E				15.3
0.5 - 0.8 34.2	<2C	0.09D		82B	0.007E				15.3

#### Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CM	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
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CEC	salts
15C1_K soluble salts	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for

15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
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

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18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - 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)