

**Project Name:** Katanning land resources survey  
**Project Code:** KLC **Site ID:** 0070 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Heather Percy  
**Date Desc.:** 24/10/91  
**Map Ref.:**  
**Northing/Long.:** 6257840 AMG zone: 50  
**Easting/Lat.:** 572050 Datum: AGD84  
**Locality:**  
**Elevation:** 310 metres  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** No Data

#### 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:** Lower-slope  
**Elem. Type:** Hillslope  
**Slope:** 2 %  
**Relief:** 20 metres  
**Slope Category:** No Data  
**Aspect:** No Data

#### Surface Soil Condition Hardsetting, Hardsetting

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

#### Soil Classification

**Australian Soil Classification:** Hypercalcic Subnatric Red Sodosol  
**ASC Confidence:** All necessary analytical data are available.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dr2.13  
**Great Soil Group:** N/A

**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 - 0.08 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Sandy loam; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Dry; Water repellent; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Abrupt, Smooth change to -
B21	0.08 - 0.55 m	mm, Prismatic; Yellowish red (5YR5/6-Moist); , 0-0% ; Medium clay; Strong grade of structure, 200-500 mm, Prismatic; Rough-ped fabric; Dry; Field pH 7.5 (Raupach); Few, fine (1-2mm) roots; Clear, Wavy change to -
B22k	0.55 - 0.85 m	mm, Prismatic; Yellowish red (5YR5/6-Moist); , 0-0% ; Light medium clay; 100-200 mm, Polyhedral; Dry; Many (20 - 50 %), Calcareous, Extremely coarse (> 60 mm), Soft segregations; Soil matrix is Very highly calcareous; Field pH 8.5 (Raupach); Few, medium (2-5mm) roots; Clear change to -
C	0.85 - 1.5 m	mm, Prismatic; Yellowish red (5YR4/6-Moist); , 0-0% ; Light clay; Massive grade of structure; Dry; Soil matrix is Moderately calcareous; Field pH 8.5 (Raupach); Few, medium (2-5mm) roots;

#### Morphological Notes

A1 +MS  
 B21 5YR 4/4 CUTAN COATING +MS  
 B22k TREE ROOTS. PATCHY CO3  
 C TREE ROOTS

#### Observation Notes

#### Site Notes

close to wandoo trees

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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	5.1B 6.1H	6B	7.23H	2.03	0.51	0.22	0.06J		9.99D	
0 - 0.1	4.9B 5.8H	10B								
0 - 0.08	5.1B 6.1H	6B	7.23H	2.03	0.51	0.22	0.06J		9.99D	
0 - 0.1	4.9B 5.8H	10B								
0.08 - 0.55	7.6B 8.6H	21B	6.19E	6.7	0.14	2.16		16B	15.19D	13.50
0.08 - 0.28	5.9B 6.9H	14B	6.54A	7.24	0.3	1.68			15.76D	
0.08 - 0.55	7.6B 8.6H	21B	6.19E	6.7	0.14	2.16		16B	15.19D	13.50
0.08 - 0.55	7.6B 8.6H	21B	6.19E	6.7	0.14	2.16		16B	15.19D	13.50
0.08 - 0.28	5.9B 6.9H	14B	6.54A	7.24	0.3	1.68			15.76D	
0.28 - 0.55	6.9B 8.2H	21B	6.67E	6.93	0.16	3.05		17B	16.81D	17.94
0.28 - 0.55	6.9B 8.2H	21B	6.67E	6.93	0.16	3.05		17B	16.81D	17.94
0.28 - 0.55	6.9B 8.2H	21B	6.67E	6.93	0.16	3.05		17B	16.81D	17.94
0.55 - 0.85	8.6B 9.4H	120B	6.05E	11.34	0.15	7.96		23B	25.5D	34.61
0.55 - 0.85	8.6B 9.4H	120B	6.05E	11.34	0.15	7.96		23B	25.5D	34.61
0.55 - 0.85	8.6B 9.4H	120B	6.05E	11.34	0.15	7.96		23B	25.5D	34.61
0.85 - 1.5	8.7B 9.5H	61B	0.81E	9.28	0.45	9.82		20B	20.36D	49.10
0.85 - 1.5	8.7B 9.5H	61B	0.81E	9.28	0.45	9.82		20B	20.36D	49.10
0.85 - 1.5	8.7B 9.5H	61B	0.81E	9.28	0.45	9.82		20B	20.36D	49.10

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 8.7		2.88D		310B						10
0 - 0.1		1.89D		350B	0.126E					
0 - 0.08 8.7		2.88D		310B						10
0 - 0.1		1.89D		350B	0.126E					
0.08 - 0.55 30	<2C	0.33D		110B						7.6
0.08 - 0.28 33.5								59I		7.5
0.08 - 0.55 30	<2C	0.33D		110B						7.6
0.08 - 0.55 30	<2C	0.33D		110B						7.6
0.08 - 0.28 33.5								59I		7.5
0.28 - 0.55 31	<2C							62I		7

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0.28 - 0.55	<2C		62I	7
31				
0.28 - 0.55	<2C		62I	7
31				
0.55 - 0.85	28C	0.29D	110B	7.9
48.1				
0.55 - 0.85	28C	0.29D	110B	7.9
48.1				
0.55 - 0.85	28C	0.29D	110B	7.9
48.1				
0.85 - 1.5	<2C	0.02D	620B	8
9				
0.85 - 1.5	<2C	0.02D	620B	8
9				
0.85 - 1.5	<2C	0.02D	620B	8
9				

#### **Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15C1_CA	Exchangeable bases (Ca2+,Mg2+,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	
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
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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO3) - 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_S	Sand (%) - 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)

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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)