

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 1024 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Melanie Roberts  
**Date Desc.:** 10/10/97  
**Map Ref.:**  
**Northing/Long.:** 6261481 AMG zone: 50  
**Easting/Lat.:** 651453 Datum: AGD84  
**Locality:**  
**Elevation:** No Data  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** No Data

#### Geology

**Exposure Type:** Soil pit  
**Geol. Ref.:** No Data  
**Conf. Sub. is Parent. Mat.:** No Data  
**Substrate Material:** No Data

#### Landform

**Rel/Slope Class:** No Data  
**Morph. Type:** No Data  
**Elem. Type:** No Data  
**Slope:** %  
**Pattern Type:** No Data  
**Relief:** No Data  
**Slope Category:** No Data  
**Aspect:** No Data

#### Surface Soil Condition

#### Erosion

#### Soil Classification

**Australian Soil Classification:**  
 Ferric Mottled-Hypernatric Sodosol  
**ASC Confidence:**  
 Analytical data are incomplete but reasonable confidence.  
**Mapping Unit:** N/A  
**Principal Profile Form:** N/A  
**Great Soil Group:** N/A

#### Site Disturbance

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

A1c 0 - 0.1 m ; Loamy sand; 20-50%, Ironstone, coarse fragments; Field pH 7.1 (pH meter);  
 A2ec 0.1 - 0.3 m ; 50-90%, Ironstone, coarse fragments; Field pH 7.4 (pH meter);  
 B21c 0.3 - 0.7 m , 20-50% ; Light clay; Strong grade of structure; 10-20%, Ironstone, coarse fragments;  
 Field pH 8.1 (pH meter);  
 B22c 0.7 - 1.5 m ; Light clay; Massive grade of structure; Field pH 7.4 (pH meter);  
 B23 1.5 - 1.6 m ; Light medium clay; Massive grade of structure; Field pH 4.9 (pH meter);

#### Morphological Notes

A2ec Bleached sandy loam.  
 B21c Clay some gravel, mottled clay  
 B22c Saprolite.  
 B23 Kaolinite.

#### Observation Notes

#### Site Notes

Soil pit a loamy gravel. Recharge area for lower slopes. Downslope of site is waterlogged area with lucerne balansa clover.

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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 - 0.1	5.8B 6.7H	22B	4.47A	1.1	1.03	0.49			7.09D	
0 - 0.1	5.8B 6.7H	22B	4.47A	1.1	1.03	0.49			7.09D	
0.1 - 0.3	6.7B 8H	6B	1.35A	0.54	0.24	0.34			2.47D	

0.1 - 0.3	6.7B 8H	6B	1.35A	0.54	0.24	0.34			2.47D	
0.3 - 0.7	7.5B 8.7H	55B	1.66E	4.98	1.52	4.29		15B	12.45D	28.60
0.3 - 0.7	7.5B 8.7H	55B	1.66E	4.98	1.52	4.29		15B	12.45D	28.60
0.7 - 1.5	7.5B 8.5H	94B	0.68E	4.63	1.39	6.17		14B	12.87D	44.07
0.7 - 1.5	7.5B 8.5H	94B	0.68E	4.63	1.39	6.17		14B	12.87D	44.07
1.5 - 1.6	4.5B 5H	150B	0.04H	2.63	0.34	2.23	0.3J		5.24D	
1.5 - 1.6	4.5B 5H	150B	0.04H	2.63	0.34	2.23	0.3J		5.24D	

Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>			%	
0 - 0.1 4.8		1.7D		110B	0.114E						5.8
0 - 0.1 4.8		1.7D		110B	0.114E						5.8
0.1 - 0.3 3.9		0.21D		27B	0.012E						4.1
0.1 - 0.3 3.9		0.21D		27B	0.012E						4.1
0.3 - 0.7 41.3	<2C	0.15D		40B	0.014E						9
0.3 - 0.7 41.3	<2C	0.15D		40B	0.014E						9
0.7 - 1.5 35.4		0.09D		44B	0.009E						6.2
0.7 - 1.5 35.4		0.09D		44B	0.009E						6.2
1.5 - 1.6 46.3		0.14D		26B	0.006E						2
1.5 - 1.6 46.3		0.14D		26B	0.006E						2

#### 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
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15C1_CA pretreatment for	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5,
	soluble salts

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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 (Ca <sup>2+</sup> , Mg <sup>2+</sup> , Na <sup>+</sup> , K <sup>+</sup> ) 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_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 (CaCO <sub>3</sub> ) - Not recorded
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
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
4G_NR	pH buffering capacity, (method not recorded)
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
7C1a	Ammonium-N, in presence or absence of nitrite
7C1e	Nitrate-N, in presence of nitrite
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)