

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 1023 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

**Desc. By:** Melanie Roberts  
**Date Desc.:** 10/10/97  
**Map Ref.:**  
**Northing/Long.:** 6255157 AMG zone: 50  
**Easting/Lat.:** 651760 Datum: AGD84  
**Locality:**  
**Elevation:** No Data  
**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

**Landform**

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

**Surface Soil Condition** Hardsetting

**Erosion**

**Soil Classification**

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

**Site Disturbance**

**Vegetation**

**Surface Coarse Fragments** No surface coarse fragments; No surface coarse fragments

**Profile Morphology**

A1 0 - 0.05 m ; Massive grade of structure; Field pH 5.9 (pH meter);  
 B21t 0.05 - 0.9 m ; Field pH 5.6 (pH meter);  
 B22t 0.9 - 1.7 m , 20-50% ; Field pH 4.8 (pH meter);

**Morphological Notes**

A1 Massive grey clay  
 B21t Grey clay with orange mottling. Grey sand seam, an old root channel with a pH of 6.0 & a  
 EC of 7ms/m.  
 B22t Kaolinite clay with mottling.

**Observation Notes**

**Site Notes**

Soil pit. Non-cracking grey clay. Weathered granite on surface. Old root channels in layer #2, filled with quartz + grey coarse sand. Root channel pH of 6.0 & EC of 7ms/m.

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable	Cations	Na	Exchangeable	CEC	ECEC	ESP
m		dS/m		Mg	K	Cmol (+)/kg	Acidity			%
0 - 0.05	5B 6H	7B	2.78H	2.67	0.08	0.37	0.2J		5.9D	
0 - 0.05	5B 6H	7B	2.78H	2.67	0.08	0.37	0.2J		5.9D	
0.05 - 0.9	4.5B 5.6H	17B	0.25H	2.89	0.13	1.25	0.27J		4.52D	
0.05 - 0.9	4.5B 5.6H	17B	0.25H	2.89	0.13	1.25	0.27J		4.52D	
0.9 - 1.7	4.1B 4.4H	160B	<0.02K	3.1	0.25	4.2	0.12J		7.56D	

0.9 - 1.7	4.1B 4.4H	160B	<0.02K	3.1	0.25	4.2	0.12J	7.56D
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Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>	GV CS FS Silt
0 - 0.05 15.2		1.9D		140B	0.076E			4
0 - 0.05 15.2		1.9D		140B	0.076E			4
0.05 - 0.9 34.7		0.38D		39B	0.015E			2.2
0.05 - 0.9 34.7		0.38D		39B	0.015E			2.2
0.9 - 1.7 44.7		0.1D		130B	0.005E			35.5
0.9 - 1.7 44.7		0.1D		130B	0.005E			35.5

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

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CM	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
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
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
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)

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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)