

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0730 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b> Melanie Roberts	<b>Locality:</b>
<b>Date Desc.:</b> 28/01/97	<b>Elevation:</b> 315 metres
<b>Map Ref.:</b>	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6295501 AMG zone: 50	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 600274 Datum: AGD84	<b>Drainage:</b> Imperfectly 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

#### Landform

**Rel/Slope Class:** Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

<b>Morph. Type:</b> Lower-slope	<b>Relief:</b> 10 metres
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> No Data
<b>Slope:</b> 2 %	<b>Aspect:</b> 45 degrees

#### Surface Soil Condition Loose

**Erosion** (wind); (scald) (sheet) (rill) (mass) (gully)  
(stbank) (tunnel)

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Ferric Mottled-Mesonatric Grey Sodosol	<b>Principal Profile Form:</b> N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> N/A
No analytical data are available but confidence is fair.	

**Site Disturbance** Cultivation. Rainfed

#### Vegetation

**Surface Coarse Fragments** 2-10%, medium gravelly, 6-20mm, subangular, Gravel; No surface coarse fragments

#### Profile Morphology

A1p 0 - 0.12 m	Dark brown (10YR3/3-Moist); ; Loamy sand; Single grain grade of structure; Dry; 2-10%, fine gravelly, 2-6mm, subangular, Ironstone, coarse fragments; Field pH 6.5 (Raupach); Clear, Irregular change to -
A2 0.12 - 0.33 m	Brown (10YR4/3-Moist); ; Sand; Single grain grade of structure; Dry; 2-10%, medium gravelly, 6-20mm, subangular, Ironstone, coarse fragments; Field pH 6.5 (pH meter); Sharp, Smooth change to -
B21 0.33 - 0.8 m	Pale brown (10YR6/3-Moist); Mottles, 2.5YR48, 10-20% , 5-15mm, Prominent; Mottles, 10YR68, 20-50% , 30-mm, Distinct; Light clay; Strong grade of structure, 50-100 mm, Columnar; Dry; Field pH 7 (Raupach); Sharp, Smooth change to -
B22c 0.8 - 1.2 m	Light yellowish brown (2.5Y6/4-Moist); ; Massive grade of structure; Dry; 90-100%, medium gravelly, 6-20mm, subrounded, Ironstone, coarse fragments; Soil matrix is Moderately calcareous; Field pH 7.6 (pH meter); Sharp, Wavy change to -
B23c 1.2 - 1.45 m	Light grey (10YR7/2-Moist); Mottles, 10YR68, 20-50% , 30-mm, Distinct; Sandy light clay; Massive grade of structure; Dry; 50-90%, medium gravelly, 6-20mm, subrounded, Ironstone, coarse fragments; Soil matrix is Moderately calcareous; Field pH 8.3 (pH meter);

#### Morphological Notes

B22c Sandy clayey gravel

#### Observation Notes

#### Site Notes

Soil pit.

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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 - 0.12	4.5B	5B	1.41H	0.26	0.11	0.09	0.19J		1.87D	
0 - 0.12	5.3H									
	4.5B	5B	1.41H	0.26	0.11	0.09	0.19J		1.87D	
	5.3H									
0.12 - 0.33	4.9B	2B	0.47H	0.15	0.04	0.02	0.05J		0.68D	
	5.9H									
0.12 - 0.33	4.9B	2B	0.47H	0.15	0.04	0.02	0.05J		0.68D	
	5.9H									
0.33 - 0.8	6.3B	12B	2.99A	6.3	0.09	2.14			11.52D	
	7.5H									
0.33 - 0.8	6.3B	12B	2.99A	6.3	0.09	2.14			11.52D	
	7.5H									
0.8 - 1.2	7.6B	15B	1.66E	4.36	0.18	2.7		13B	8.9D	20.77
	9.1H									
0.8 - 1.2	7.6B	15B	1.66E	4.36	0.18	2.7		13B	8.9D	20.77
	9.1H									
1.2 - 1.45	7.7B	17B	1.27E	4.16	0.24	3.96		12B	9.63D	33.00
	9.2H									
1.2 - 1.45	7.7B	17B	1.27E	4.16	0.24	3.96		12B	9.63D	33.00
	9.2H									

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 - 0.12		0.94D		130B	0.068E				3.6
4									
0 - 0.12		0.94D		130B	0.068E				3.6
4									
0.12 - 0.33		0.13D		45B	0.01E				3.3
3.6									
0.12 - 0.33		0.13D		45B	0.01E				3.3
3.6									
0.33 - 0.8		0.09D		32B	0.012E				5.9
64.9									
0.33 - 0.8		0.09D		32B	0.012E				5.9
64.9									
0.8 - 1.2		0.06D		32B	0.007E				5.7
28									
0.8 - 1.2		0.06D		32B	0.007E				5.7
28									
1.2 - 1.45	<2C	0.05D		25B	0.005E				6.9
27.9									
1.2 - 1.45	<2C	0.05D		25B	0.005E				6.9
27.9									

**Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - 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 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 salts
15A1_NA 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 salts
15C1_CA pretreatment for	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)