

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0218 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Heather Percy	<b>Locality:</b>	
<b>Date Desc.:</b>	12/07/95	<b>Elevation:</b>	325 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6255165 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	624375 Datum: AGD84	<b>Drainage:</b>	Poorly drained

#### Geology

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

#### Landform

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Alluvial plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	5 metres
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition** Recently cultivated, Hardsetting

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

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Calcic Subnatric Brown Sodosol		<b>Principal Profile Form:</b>	Dy2.23
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
All necessary analytical data are available.			

**Site Disturbance** Cultivation. Rainfed

#### Vegetation

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

#### Profile Morphology

Ap	0 - 0.08 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; Moist;
		Loose consistence; Field pH 5.5 (Raupach); Abrupt, Wavy change to -
A2e	0.08 - 0.1 m	Light brownish grey (10YR6/2-Moist); , 0-0% ; Clayey sand; Massive grade of structure; Moist; Field pH
		6.5 (Raupach); Abrupt, Wavy change to -
B21	0.1 - 0.3 m	Brown (10YR5/3-Moist); Mechanical, 10YR21, 10-20% , 15-30mm, Distinct; Sandy medium heavy clay;
		Strong grade of structure; Rough-ped fabric; Dry; Firm consistence; Field pH 8 (Raupach); Clear
		change to -
B22	0.3 - 0.45 m	Pale yellow (2.5Y7/3-Moist); , 0-0% ; Sandy light medium clay; Strong grade of structure; Rough-ped
		fabric; Moderately moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated; Soil
		matrix is Slightly calcareous; Field pH 9 (Raupach); Clear change to -
B23k	0.45 - 0.6 m	Light grey (2.5Y7/2-Moist); , 0-0% ; Medium clay; Strong grade of structure; Smooth-ped fabric; Dry;
		Strong consistence; 10-20%, medium gravelly, 6-20mm, subrounded, Calcrete, coarse fragments; 10-
		20%, medium gravelly, 6-20mm, Calcrete, coarse fragments; Few cutans, <10% of ped faces or walls
		coated; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Soil matrix is Highly
		calcareous; Field pH 9.5 (Raupach);

#### Morphological Notes

Ap	Cultivated.
B21	Dead tree root in top 10cm of this layer.
B22	Cutans - 10yr 4/1 common.
B23k	Few cutans - 10yr 4/1 - kaolinitic clay.

#### Observation Notes

#### Site Notes

Site in cereal crop - "hardsetting grey clay".

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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 - 0.08	4.8B	16B	4.18H	1.34	0.33	0.36	0.15J		6.21D	
0 - 0.08	5.6H									
0 - 0.08	4.8B	16B	4.18H	1.34	0.33	0.36	0.15J		6.21D	
0 - 0.08	5.6H									
0 - 0.08	4.8B	16B	4.18H	1.34	0.33	0.36	0.15J		6.21D	
0 - 0.1	5.6H									
0.15 - 0.25	4.8B									
0.18 - 0.3	6.3B	16B	4.33A	5.37	0.28	1.45			11.43D	
0.18 - 0.3	6.5B									
0.18 - 0.3	7.6H	16B	4.33A	5.37	0.28	1.45			11.43D	
0.18 - 0.3	6.5B									
0.18 - 0.3	7.6H	16B	4.33A	5.37	0.28	1.45			11.43D	
0.35 - 0.45	6.5B									
	7.6H									
	7.8B									

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 - 0.08		2.37D						83.5I 6
10.5								
0 - 0.08		2.37D						83.5I 6
10.5								
0 - 0.08		2.37D						83.5I 6
10.5								
0 - 0.1								
0.15 - 0.25								
0.18 - 0.3		0.86D						58I 5.5
36.5								
0.18 - 0.3		0.86D						58I 5.5
36.5								
0.18 - 0.3		0.86D						58I 5.5
36.5								
0.35 - 0.45								

**Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMd	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	
15A1_CEC	salts
15A1_K	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_MG	salts
for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA	salts
for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15E1_AL	salts
15E1_CA	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
salts	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
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

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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
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
P10_gt2m	> 2mm particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_S	Sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded