

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0381 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b> Heather Percy	<b>Locality:</b>
<b>Date Desc.:</b> 16/08/95	<b>Elevation:</b> 275 metres
<b>Map Ref.:</b>	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6240145 AMG zone: 50	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 616460 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

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

<b>Morph. Type:</b> Mid-slope	<b>Relief:</b> 10 metres
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> No Data
<b>Slope:</b> 1 %	<b>Aspect:</b> 225 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Supracalcic Subnatric Brown Sodosol	<b>Principal Profile Form:</b> Db2.13
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> N/A
All necessary analytical data are available.	

**Site Disturbance** Complete clearing. Pasture, native or improved, cultivated at some stage

#### Vegetation

**Surface Coarse Fragments** 10-20%, medium gravelly, 6-20mm, subangular, Quartz; 10-20%, , subangular, Gneiss

#### Profile Morphology

A1 0 - 0.05 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Clay loam, sandy; Massive grade of structure; Dry;
	Very firm consistence; 20-50%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Field
	pH 6 (Raupach); Abrupt, Wavy change to -
B21k 0.05 - 0.25 m	Brown (7.5YR4/4-Moist); , 0-0% ; Medium heavy clay; Moderate grade of structure;
Rough-ped fabric;	Moderately moist; Very firm consistence; 20-50%, medium gravelly, 6-20mm,
subrounded, Calcrete,	coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 - 6 mm), Soft segregations; Soil
matrix is	Slightly calcareous; Field pH 8.5 (Raupach); Clear change to -
B22k 0.25 - 0.45 m	Yellowish brown (10YR5/6-Moist); Mottles, 7.5YR6/6, 10-20% , 15-30mm, Distinct;
Medium clay; Weak	grade of structure; Rough-ped fabric; Moderately moist; Firm consistence; 20-50%, fine
gravelly, 2-6mm,	Calcrete, coarse fragments; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Soft
segregations;	Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach); Clear change to -
B23k 0.45 - 0.6 m	Yellowish brown (10YR5/6-Moist); Mottles, 2.5YR4/6, 2-10% , 5-15mm, Distinct; Light
clay; Weak grade	of structure; Rough-ped fabric; Moderately moist; Weak consistence; Common (10 - 20
%), Calcareous,	Very coarse (20 - 60 mm), Soft segregations; Soil matrix is Moderately calcareous; Field
pH 9.5	(Raupach);

#### Morphological Notes

B21k ??Duplicate--"common" carbonate "nodules" removed from segregations table

#### Observation Notes

#### Site Notes

"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 - 0.05	5.8B 6.6H	18B	5.35A	6.99	0.67	0.67			13.68D	
0 - 0.05	5.8B 6.6H	18B	5.35A	6.99	0.67	0.67			13.68D	
0 - 0.05	5.8B 6.6H	18B	5.35A	6.99	0.67	0.67			13.68D	
0.05 - 0.25	8.3B 9.1H	25B	6.84E	11.91	0.51	1.91		22B	21.17D	8.68
0.05 - 0.25	8.3B 9.1H	25B	6.84E	11.91	0.51	1.91		22B	21.17D	8.68
0.05 - 0.25	8.3B 9.1H	25B	6.84E	11.91	0.51	1.91		22B	21.17D	8.68

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 - 0.05		1.79D						71.5I 8
20.5								
0 - 0.05		1.79D						71.5I 8
20.5								
0 - 0.05		1.79D						71.5I 8
20.5								
0.05 - 0.25	5C	0.27D						50.5I 9
40.5								
0.05 - 0.25	5C	0.27D						50.5I 9
40.5								
0.05 - 0.25	5C	0.27D						50.5I 9
40.5								

**Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	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	
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 soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded

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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