

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0372 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Heather Percy  
**Date Desc.:** 08/08/95  
**Map Ref.:**  
**Northing/Long.:** 6236150 AMG zone: 50  
**Easting/Lat.:** 604900 Datum: AGD84  
**Locality:**  
**Elevation:** 250 metres  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** Imperfectly drained

#### Geology

**ExposureType:** Auger boring  
**Geol. Ref.:** No Data  
**Conf. Sub. is Parent. Mat.:** No Data  
**Substrate Material:** No Data

#### Landform

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

**Morph. Type:** Mid-slope  
**Elem. Type:** Hillslope  
**Slope:** 1 %  
**Relief:** 5 metres  
**Slope Category:** No Data  
**Aspect:** 90 degrees

#### Surface Soil Condition Hardsetting, Hardsetting

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

#### Soil Classification

**Australian Soil Classification:** Hypocalcic Mesonatric Yellow Sodosol  
**ASC Confidence:** All necessary analytical data are available.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dy2.13  
**Great Soil Group:** N/A

#### Site Disturbance Cultivation. Rainfed

#### Vegetation

#### Surface Coarse Fragments 2-10%, medium gravelly, 6-20mm, subrounded, ; No surface coarse fragments

#### Profile Morphology

**A1** 0 - 0.08 m Dark grey (10YR4/1-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Moderately moist; Weak  
 consistence; 10-20%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach);  
 Abrupt, Wavy change to -  
**B21** 0.08 - 0.4 m Light yellowish brown (2.5Y6/4-Moist); Mottles, 5YR56, 2-10% , 5-15mm, Distinct; Sandy light medium  
 clay; Moderate grade of structure; Rough-ped fabric; Moderately moist; Firm consistence;  
 Soil matrix is  
 Slightly calcareous; Field pH 8.5 (Raupach); Clear change to -  
**B22k** 0.4 - 0.6 m Light yellowish brown (2.5Y6/4-Moist); , 0-0% ; Sandy light medium clay; Moderate grade  
 of structure;  
 Rough-ped fabric; Dry; Very firm consistence; 10-20%, coarse gravelly, 20-60mm,  
 subrounded, Calcrete,  
 coarse fragments; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach);

#### Morphological Notes

B22k ??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				Na Cmol (+)/kg				%
0 - 0.08	5.3B	32B	5.43H	2.49	0.24	0.3	<0.02J		8.46D	

0 - 0.08	5.8H 5.3B	32B	5.43H	2.49	0.24	0.3	<0.02J	8.46D		
0 - 0.08	5.8H 5.3B	32B	5.43H	2.49	0.24	0.3	<0.02J	8.46D		
0.08 - 0.3	8.5H 7.4B	26B	2.73E	7.26	0.11	3.3		16B	13.4D	20.63
0.08 - 0.3	8.5H 7.4B	26B	2.73E	7.26	0.11	3.3		16B	13.4D	20.63
0.08 - 0.3	8.5H 7.4B	26B	2.73E	7.26	0.11	3.3		16B	13.4D	20.63

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 - 0.08 14		1.1D							81I		5
0 - 0.08 14		1.1D							81I		5
0 - 0.08 14		1.1D							81I		5
0.08 - 0.3 34.5	<2C	0.15D							62.5I		3
0.08 - 0.3 34.5	<2C	0.15D							62.5I		3
0.08 - 0.3 34.5	<2C	0.15D							62.5I		3

#### Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CM	Exchangeable bases (Ca/Mg ratio) - Not recorded
15C1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
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_MN	Exchangeable bases (Mn <sup>2+</sup> ) 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
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
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method

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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