

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0645 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Melanie Roberts	<b>Locality:</b>	
<b>Date Desc.:</b>	17/10/96	<b>Elevation:</b>	290 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6286550 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	639620 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 plains <9m 1-3% **Pattern Type:** Playa plain

<b>Morph. Type:</b>	Lower-slope	<b>Relief:</b>	5 metres
<b>Elem. Type:</b>	Duneslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	135 degrees

#### Surface Soil Condition Loose

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

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Hypocalcic Mottled-Mesonatric Grey Sodosol	<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A

All necessary analytical data are available.

**Site Disturbance** Extensive clearing, for example poisoning, ringbarking

#### Vegetation

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

#### Profile Morphology

A1	0 - 0.12 m	Dark greyish brown (10YR4/2-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Field pH 6.5 (Raupach); Common, very fine (0-1mm) roots; Clear, Wavy change to -
A2e	0.12 - 0.6 m	Light brownish grey (10YR6/2-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; Field pH 7 (Raupach); Sharp, Wavy change to -
B21	0.6 - 0.8 m	Light brownish grey (2.5Y6/3-Moist); Mottles, 5YR58, 20-50% , 30-mm, Prominent; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Field pH 7 (Raupach); Abrupt, Wavy change to -
B22	0.8 - 1.1 m	Light brownish grey (2.5Y6/2-Moist); Mottles, 2.5Y76, 20-50% , 5-15mm, Faint; Light medium clay; Massive grade of structure; Earthy fabric; Dry; Firm consistence; Field pH 8 (Raupach); Clear, Irregular change to -
B23k	1.1 - 1.3 m	Light brownish grey (2.5Y6/2-Moist); , 0-0% ; Light clay; Massive grade of structure; Earthy fabric; Dry; Firm consistence; 2-10%, coarse gravelly, 20-60mm, Calcrete, coarse fragments; Soil matrix is Slightly calcareous; Field pH 9 (Raupach);

#### Morphological Notes

A1	pH(H2O)-6.2, pH(CaCl2)-5.4
A2e	Medium to coarse sand. Below 40cm sand is moist with few faint reddish mottles.

#### Observation Notes

#### Site Notes

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Observation 1

**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.12	6.4B 7H	4B	4.72A	0.46	0.11	0.05			5.34D	
0 - 0.12	6.4B 7H	4B	4.72A	0.46	0.11	0.05			5.34D	
0 - 0.1	5.4B 6.2H	3B								
0 - 0.1	5.4B 6.2H	3B								
0.12 - 0.4	6.7B 7.7H	2B	1A	0.12	0.05	0.03			1.2D	
0.12 - 0.4	6.7B 7.7H	2B	1A	0.12	0.05	0.03			1.2D	
0.4 - 0.6	6.8B 7.3H	1B	0.32A	0.08	0.02	0.03			0.45D	
0.4 - 0.6	6.8B 7.3H	1B	0.32A	0.08	0.02	0.03			0.45D	
0.6 - 0.8	6.6B 8.1H	14B	3E	4.95	1.3	4.04		18B	13.29D	22.44
0.6 - 0.8	6.6B 8.1H	14B	3E	4.95	1.3	4.04		18B	13.29D	22.44
0.8 - 1.1	7.3B 8.8H	20B	3.59E	6.57	1.96	5.63		21B	17.75D	26.81
0.8 - 1.1	7.3B 8.8H	20B	3.59E	6.57	1.96	5.63		21B	17.75D	26.81
1.1 - 1.3	8.4B 9.4H	48B	3.89E	6.3	1.94	6.25		20B	18.38D	31.25
1.1 - 1.3	8.4B 9.4H	48B	3.89E	6.3	1.94	6.25		20B	18.38D	31.25

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS %	Analysis Silt
0 - 0.12 2.6		1.15D		51B						1.8
0 - 0.12 2.6		1.15D		51B						1.8
0 - 0.1		0.43D		32B	0.024E					
0 - 0.1		0.43D		32B	0.024E					
0.12 - 0.4 1.5		0.1D		12B						1.4
0.12 - 0.4 1.5		0.1D		12B						1.4
0.4 - 0.6 1		0.04D		11B						1.3
0.4 - 0.6 1		0.04D		11B						1.3
0.6 - 0.8 47.6	<2C	0.11D		31B						2.9
0.6 - 0.8 47.6	<2C	0.11D		31B						2.9
0.8 - 1.1 55.1	<2C	0.05D		34B						2.9
0.8 - 1.1 55.1	<2C	0.05D		34B						2.9
1.1 - 1.3 52.4	4C	0.05D		32B						3.7
1.1 - 1.3 52.4	4C	0.05D		32B						3.7

**Laboratory Analyses Completed for this profile**

15\_NR\_BSa      Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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15_NR_CM	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA 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_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K 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_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
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
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 Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
	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
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
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)