

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0494 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Heather Percy	<b>Locality:</b>	
<b>Date Desc.:</b>	26/03/96	<b>Elevation:</b>	305 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6333320 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	621050 Datum: AGD84	<b>Drainage:</b>	Poorly 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>	Mid-slope	<b>Relief:</b>	30 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	1 %	<b>Aspect:</b>	90 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Hypocalcic Subnatric Grey Sodosol	<b>Principal Profile Form:</b>	Dy3.13
<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** No surface coarse fragments; No surface coarse fragments

#### Profile Morphology

A1	0 - 0.08 m	Dark greyish brown (10YR4/2-Moist); , 0-0% ; Clayey coarse sand; Massive grade of structure; Dry;
		Very weak consistence; Field pH 6 (Raupach); Abrupt, Smooth change to -
B21	0.08 - 0.35 m	Pale brown (10YR6/3-Moist); , 0-0% ; Coarse sandy light clay; Massive grade of structure; Dry; Strong
		consistence; 2-10%, fine gravelly, 2-6mm, subrounded, , coarse fragments; Field pH 8 (Raupach); Clear,
		Wavy change to -
B22	0.35 - 1.1 m	Light grey (10YR7/2-Moist); Mottles, 2.5YR46, 10-20% , 5-15mm, Distinct; Light medium clay; Moderate
		grade of structure, 100-200 mm, Prismatic; Rough-ped fabric; Dry; Strong consistence;
		Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach); Clear, Wavy change to -
B3	1.1 - 1.35 m	Light grey (10YR7/2-Moist); Mottles, 2.5YR46, 2-10% , 5-15mm, Distinct; , 7.5YR46, 2-10% , 5-15mm,
		Distinct; Coarse sandy clay loam; Weak grade of structure, 20-50 mm, Polyhedral;
		Dry; Strong consistence; 10-20%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; 10-
		20%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Soil matrix is Slightly calcareous; Field
		pH 9.5 (Raupach); Abrupt, Wavy change to -
C	1.35 - 1.7 m	White (10YR8/1-Moist); Mottles, 2.5YR46, 2-10% , 15-30mm, Distinct; Light clay;
		structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Soil matrix is Slightly
		calcareous; Field pH 9.5 (Raupach);

#### Morphological Notes

B3	Not sure of texture as very gritty.
C	Possibly weathered gneiss, kaolinitic clay.

#### Observation Notes

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**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 - 0.08	5B 6H	9B	2.7H	1.18	0.17	0.35	0.07J		4.4D	
0 - 0.08	5B 6H	9B	2.7H	1.18	0.17	0.35	0.07J		4.4D	
0 - 0.1	4.9B 5.9H	8B								
0 - 0.1	4.9B 5.9H	8B								
0.08 - 0.28	7.2B 8.5H	10B	2.3E	3.97	0.21	1.03		9B	7.51D	11.44
0.08 - 0.28	7.2B 8.5H	10B	2.3E	3.97	0.21	1.03		9B	7.51D	11.44
0.28 - 0.35	8.1B 9.2H	20B	2.3E	5.79	0.32	1.97		11B	10.38D	17.91
0.28 - 0.35	8.1B 9.2H	20B	2.3E	5.79	0.32	1.97		11B	10.38D	17.91
0.35 - 0.75	8.2B 9.4H	30B	1.5E	6.63	0.65	4.13		13B	12.91D	31.77
0.35 - 0.75	8.2B 9.4H	30B	1.5E	6.63	0.65	4.13		13B	12.91D	31.77
0.75 - 1.1	8.1B 9.4H	32B	0.54E	5.08	0.62	5.54		12B	11.78D	46.17
0.75 - 1.1	8.1B 9.4H	32B	0.54E	5.08	0.62	5.54		12B	11.78D	46.17
1.1 - 1.35	8B 9.4H	29B	0.21E	3.19	0.52	4.08		8B	8D	51.00
1.1 - 1.35	8B 9.4H	29B	0.21E	3.19	0.52	4.08		8B	8D	51.00
1.35 - 1.7	8.4B 9.1H	140B	0.11E	3.06	0.52	6.03		8B	9.72D	75.38
1.35 - 1.7	8.4B 9.1H	140B	0.11E	3.06	0.52	6.03		8B	9.72D	75.38

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV	Size CS	Analysis FS	Silt
0 - 0.08 6.8		0.94D		130B							4.5
0 - 0.08 6.8		0.94D		130B							4.5
0 - 0.1		0.98D		140B	0.058E						
0 - 0.1		0.98D		140B	0.058E						
0.08 - 0.28 26.8	<2C	0.2D		36B							4.2
0.08 - 0.28 26.8	<2C	0.2D		36B							4.2
0.28 - 0.35 39.8	<2C	0.12D		37B							4
0.28 - 0.35 39.8	<2C	0.12D		37B							4
0.35 - 0.75 46.2	<2C	0.09D		39B							5.5
0.35 - 0.75 46.2	<2C	0.09D		39B							5.5
0.75 - 1.1 40.9	<2C	0.05D		37B							6.1
0.75 - 1.1 40.9	<2C	0.05D		37B							6.1

1.1 - 1.35 23.4	<2C	0.03D	32B	2.1
1.1 - 1.35 23.4	<2C	0.03D	32B	2.1

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1.35 - 1.7	<2C	0.05D	90B	15.4
37.9				
1.35 - 1.7	<2C	0.05D	90B	15.4
37.9				

**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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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 (Ca2+,Mg2+,Na+,K+) 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 (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
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 (CaCO3) - 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
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)