

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0648 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Melanie Roberts	Locality:	
Date Desc.:	17/10/96	Elevation:	295 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6298500 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	649000 Datum: AGD84	Drainage:	Moderately well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Landform

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

Morph. Type:	Crest	Relief:	5 metres
Elem. Type:	Hillcrest	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Epibasic Pedal Calcic Calcarosol	Principal Profile Form:	N/A
ASC Confidence:	Great Soil Group:	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

A1p	0 - 0.08 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Sandy light clay; Massive grade of structure; Dry; change to -
B21	0.08 - 0.43 m	Brown (10YR5/3-Moist); ; , 0-0% ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Polyhedral; Dry; Strong consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Soft segregations; Soil matrix is Highly calcareous; Field pH 9.5 (Raupach); Few, fine (1-2mm) roots; Clear, Irregular change to -
B22	0.43 - 0.6 m	Light brownish grey (10YR6/2-Moist); Mottles, 10R36, 20-50% , 30-mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; Few (2 - 10 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Soil matrix is Highly calcareous; Field pH 9.5 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
B3	0.6 - 1 m	Light grey (2.5Y7/2-Moist); Substrate influence, 10YR81, 20-50% , 30-mm, Prominent; Mottles, 10R36, 20-50% , 30-mm, Prominent; Medium clay; Moderate grade of structure, 10-20 mm, Polyhedral; Smooth- ped fabric; Dry; Very firm consistence; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach);

Morphological Notes

B3 Kaolinitic clay

Observation Notes

Site Notes

The field texture of clay topsoil used to classify as a grey non-cracking clay.

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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	6.8B 7.7H	15B	5.07A	6.4	1.04	0.96			13.47D	
0 - 0.08	6.8B 7.7H	15B	5.07A	6.4	1.04	0.96			13.47D	
0 - 0.1	6.6B 7.5H	21B								
0 - 0.1	6.6B 7.5H	21B								
0.08 - 0.28	8.5B 9.5H	65B	4.3E	9.33	1.04	5.08		19B	19.75D	26.74
0.08 - 0.43	8.5B 9.5H	76B	3.69E	9.22	1.11	5.68		17B	19.7D	33.41
0.08 - 0.28	8.5B 9.5H	65B	4.3E	9.33	1.04	5.08		19B	19.75D	26.74
0.08 - 0.43	8.5B 9.5H	76B	3.69E	9.22	1.11	5.68		17B	19.7D	33.41
0.43 - 0.6	8.7B 9.7H	100B	1.49E	7.9	1.09	8.38		18B	18.86D	46.56
0.43 - 0.6	8.7B 9.7H	100B	1.49E	7.9	1.09	8.38		18B	18.86D	46.56
0.6 - 1	8.7B 9.5H	110B	0.91E	5.91	0.82	7.62		14B	15.26D	54.43
0.6 - 1	8.7B 9.5H	110B	0.91E	5.91	0.82	7.62		14B	15.26D	54.43

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 28.4		1.32D		120B							5.5
0 - 0.08 28.4		1.32D		120B							5.5
0 - 0.1 0 - 0.1		1.21D 1.21D		120B 120B	0.097E 0.097E						
0.08 - 0.28 57	10C	0.45D						34I			9
0.08 - 0.43 55.7	11C	0.41D		41B							8.2
0.08 - 0.28 57	10C	0.45D						34I			9
0.08 - 0.43 55.7	11C	0.41D		41B							8.2
0.43 - 0.6 54.2	12C	0.13D		26B							10.6
0.43 - 0.6 54.2	12C	0.13D		26B							10.6
0.6 - 1 53.6	<2C	0.08D		18B							13.3
0.6 - 1 53.6	<2C	0.08D		18B							13.3

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 (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts

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15A1_MG for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 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 ₃) - 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_S	Sand (%) - 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)