

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0541 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Heather Percy	Locality:	
Date Desc.:	12/07/96	Elevation:	350 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6295470 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	597130 Datum: AGD84	Drainage:	Moderately well drained

Geology

ExposureType:	Auger boring	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:	Upper-slope	Relief:	30 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	1 %	Aspect:	45 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Sodic Hypocalcic Brown Chromosol	Principal Profile Form:	Dy3.13
ASC Confidence:	Great Soil Group:	N/A
Analytical data are incomplete but reasonable confidence.		

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

Ap	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Clayey sand; Moist; Field pH 6.5 (Raupach); Abrupt, Smooth change to -
A3	0.1 - 0.16 m	Brown (10YR5/3-Moist); , 0-0% ; Sandy loam; Moist; Field pH 7 (Raupach); Abrupt, Wavy change to -
B2	0.16 - 0.4 m	Brown (10YR5/3-Moist); , 0-0% ; Light medium clay; Moderate grade of structure; Moderately moist; Firm consistence; Field pH 8 (Raupach); Clear change to -
B3	0.4 - 0.55 m	Light grey (10YR7/2-Moist); Mottles, 7.5YR58, 10-20% , 5-15mm, Distinct; Sandy light medium clay; Moderate grade of structure; Rough-ped fabric; Moderately moist; Firm consistence; Soil matrix is Moderately calcareous; Field pH 9 (Raupach); Clear change to -
C	0.55 - 0.6 m	White (10YR8/1-Moist); Mottles, 7.5YR58, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure; Smooth-ped fabric; Dry; Firm consistence; Soil matrix is Highly calcareous; Field pH 9 (Raupach);

Morphological Notes

A3 Depth of clay varies from 12-16cm.

Observation Notes

Site Notes

Chemical data indicates soil is not sodic but morphological and dispersion tests do not agree. Therefore classified as a Chromosol and as a variant of the Fairclough soil series.

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.1	5.7B 6.4H	15B	11.55H	2.93	0.84	0.4	0.03J	15.72D	
0 - 0.1	5.7B 6.4H	15B	11.55H	2.93	0.84	0.4	0.03J	15.72D	
0.16 - 0.36	8.1B 8.8H	14B	5.51E	6.03	1	0.53		14B	13.07D
0.16 - 0.36	8.1B 8.8H	14B	5.51E	6.03	1	0.53		14B	13.07D

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.1 10.5		3.25D							75I		14.5
0 - 0.1 10.5		3.25D							75I		14.5
0.16 - 0.36 29.5	<2C	0.23D							47.5I		23
0.16 - 0.36 29.5	<2C	0.23D							47.5I		23

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	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
19B_NR	Calcium Carbonate (CaCO3) - 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
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