

Project Name: Knox Creek Plain survey (Kununurra)
Project Code: KNX **Site ID:** 0130 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Christopher Grose	Locality:	
Date Desc.:	11/06/94	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	8285204 AMG zone: 52	Runoff:	No Data
Easting/Lat.:	496457 Datum: AGD84	Drainage:	Poorly drained

Geology

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

Land Form

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

Surface Soil Condition Cracking

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
N/A		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site No effective disturbance other than grazing by hoofed animals

Vegetation:

Surface Coarse

Profile

A11	0 - 0.12 m	Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Granular; Rough-ped
		fabric; Dry; Very firm consistence; Field pH 6.9 (pH meter); Clear change to -
A12	0.12 - 0.25 m	Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Subangular blocky;
		Rough-ped fabric; Dry; Strong consistence; Field pH 7.7 (pH meter); Gradual change to -
B21	0.25 - 0.5 m	Brown (10YR4/3-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Subangular
		blocky; Smooth-ped fabric; Moderately moist; Very strong consistence; Field pH 8.5 (pH meter); Gradual
		change to -
B21	0.5 - 1.25 m	Brown (10YR4/3-Moist); ; Medium heavy clay; Moderate grade of structure, 50-100 mm, Subangular
		blocky; Smooth-ped fabric; Moist; Strong consistence; Very few (0 - 2 %), Calcareous,
		Fine (0 - 2 mm),
		Nodules; Field pH 8.3 (pH meter); Clear change to -
B23	1.25 - 1.8 m	Brown (7.5YR4/3-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky;
		Smooth-ped fabric; Moist; Very firm consistence; Common (10 - 20 %), Gypseous,
		Coarse (6 - 20 mm),
		Crystals; Soil matrix is Slightly calcareous; Field pH 8 (pH meter);

Morphological Notes

Observation Notes

Site Notes

Site is gilgaied to 15cm amplitude and spaced 1-2m and has cracks to 50cms. Coarse roots to 50cms and fine to 125cms. V.occasional
 CaCo3 nodules and gypsum crystals (1-2cms) in layer 5. PEDAL BROWN VERTOSOL Photos1-6. Sampled at 0-12;12-25;

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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 - 0.12	6.4B 6.9H	20B	15.09A	19.35	1.63	0.62			36.69D	
0.12 - 0.25	6.9B 7.8H	19B	18.74A		1.4	2.15				
0.25 - 0.5	7.2B 8.2H	18B	15.27E	16.86	0.76	2.79		39B	35.68D	7.15
0.5 - 0.9	7.8B 8.6H	38B	14.84E	17.2	0.72	5.3		40B	38.06D	13.25
0.9 - 1.25	7.8B 8.3H	110B	13.22E	17.71	0.94	6.94		40B	38.81D	17.35
1.25 - 1.8	7.7B 7.8H	440B	14.36E	19.17	0.88	8.16		38B	42.57D	21.47

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 - 0.12 65.4		0.67D		98B	0.044E						15.1
0.12 - 0.25 68.8		0.26D		78B	0.022E						15.1
0.25 - 0.5 67.4	<2C	0.23D		79B	0.021E						13.7
0.5 - 0.9 69	<2C	0.28D		75B	0.021E						14.9
0.9 - 1.25 71.5	<2C	0.21D		74B	0.016E						12.7
1.25 - 1.8 63.1		0.08D		54B	0.009E						12.5

Laboratory Analyses Completed for this profile

12A1_ZN DTPA - extractable copper, zinc, manganese and iron
 15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
 15_NR_CMR 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 (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_MG Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_NA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 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

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

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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
5_NR	Water soluble Chloride - Cl(%) - Not recorded
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
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_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)