**Project Name: Knox Creek Plain survey (Kununurra)** 

**Project Code: KNX** Site ID: Observation ID: 1 0129

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Noel Schoknecht Locality:

Date Desc.: Elevation: No Data 11/06/94 Map Ref.: Rainfall: No Data

Northing/Long.: 8286682 AMG zone: 52 Runoff: No Data Easting/Lat.: 497351 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: Relief: No Data Flat 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 **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** 

0 - 0.07 m Brown (10YR4/3-Moist); ; Light medium clay; Strong grade of structure, 2-5 mm,

Granular; Rough-ped fabric; Dry; Very firm consistence; Soil matrix is Slightly calcareous; Field pH 7.1 (pH

meter); Clear

change to -

A12 0.07 - 0.3 m

blockv:

Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Subangular

Rough-ped fabric; Dry; Very strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 -2 mm),

Concretions; Soil matrix is Slightly calcareous; Field pH 7.7 (pH meter); Gradual change

to -

B21 0.3 - 1.07 m Subangular blocky;

Brown (10YR4/3-Moist); ; Heavy clay; Strong grade of structure, 100-200 mm,

Smooth-ped fabric; Moderately moist; Very strong consistence; Very few (0 - 2 %),

Calcareous, Fine (0 -

2 mm), Concretions; Soil matrix is Slightly calcareous; Field pH 8.4 (pH meter); Diffuse

change to -

B22 1.07 - 1.83 m

Angular blocky;

Brown (7.5YR4/3-Moist); : Medium heavy clay; Moderate grade of structure, 20-50 mm,

Smooth-ped fabric; Moist; Firm consistence; Common (10 - 20 %), Gypseous, Medium (2

-6 mm), Crystals; Field pH 7.9 (pH meter);

**Morphological Notes** 

**Observation Notes** 

**Site Notes** 

South of knox creek 20m E of track, the area appears to be seasonally wet as sedges are prevalent in the understorey. Photos: 5-13. Thin

crust on weakly gilgaied prominently cracked PEDAL BROWN VERTOSOL. Heavily grazed and 60% bare.Prominen

**Knox Creek Plain survey (Kununurra) Project Name:** 

**Project Code:** KNX Site ID: 0129 Observation 1

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Laboratory	/ Test I	Results:
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Depth	pН	1:5 EC	Exc Ca	changeable Mg	e Cations K	Exchangeable Na Acidity	CEC	ECEC	ESP
m		dS/m	<b>-</b>	9		Cmol (+)/kg			%
0 - 0.07	6.5B 6.8H	64B	16.83A	17.82	1.66	0.72		37.03D	
0.07 - 0.3	6.9B 7.4H	33B	14.96A	19.11	1.42	1.39		36.88D	
0.3 - 0.65	7.8B 8.5H	48B	14.05E	16.47	0.63	3.94	35B	35.09D	11.26
0.65 - 1.07	7.7B 7.9H	350B	14.66E	17.55	0.75	7.54	37B	40.5D	20.38
1.07 - 1.5	7.7B 7.8H	440B	12.61E	18.59	0.86	7.52	36B	39.58D	20.89
1.5 - 1.83	7.8B 7.9H	489B	10.78E		0.73	9.12	34B		26.82

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	GV	Particle CS	Size FS	Analysis Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.07 47.9		0.9D		90B	0.048E						27.9
0.07 - 0.3 58.5		0.25D		94B	0.023E						19
0.3 - 0.65 58.9	<2C	0.2D		83B	0.018E						18.8
0.65 - 1.07 63.5		0.16D		90B	0.015E						15.7
1.07 - 1.5		0.11D		100B	0.012E						14.1
60.1 1.5 - 1.83 47.9		0.08D		100B	0.01E						27.7

## **Laboratory Analyses Completed for this profile**

12A1_ZN 15_NR_BSa 15_NR_CMR 15A1_CA for soluble	DTPA - extractable copper, zinc, manganese and iron Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available Exchangeable bases (Ca/Mg ratio) - Not recorded Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC 15A1_K for soluble	salts Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_MG for soluble	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CA pretreatment for	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC 15C1_K soluble salts	soluble salts CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for 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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded

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3\_NR Electrical conductivity or soluble salts - Not recorded

4\_NR 4B1

pH of soil - Not recorded pH of 1:5 soil/0.01M calcium chloride extract - direct 5\_NR Water soluble Chloride - Cl(%) - Not recordede

6A1\_UC Organic carbon (%) - Uncorrected Walkley and Black method

7A1 Total nitrogen - semimicro Kjeldahl, steam distillation

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 1000 to 2000u particle size analysis, (method not recorded) 9A3 P10\_1m2m P10\_20\_75 P10\_75\_106 20 to 75u particle size analysis, (method not recorded) 75 to 106u particle size analysis, (method not recorded)

P10\_NR\_C Clay (%) - Not recorded

Sand (%) - Not recorded arithmetic difference, auto generated Silt (%) - Not recorded

P10\_NR\_Saa P10\_NR\_Z P10106\_150 106 to 150u particle size analysis, (method not recorded) P10150\_180 150 to 180u particle size analysis, (method not recorded) 180 to 300u particle size analysis, (method not recorded) 300 to 600u particle size analysis, (method not recorded) 600 to 1000u particle size analysis, (method not recorded) P10180\_300 P10300\_600 P106001000