**Project Name:** **Knox Creek Plain survey (Kununurra)**
**Project Code:** **KNX** **Site ID:** **0138** **Observation ID:** **1**
**Agency Name:** **Agriculture Western Australia**

## Site Information

| | | | |
|---|---|---|---|
| **Desc. By:** | Noel Schoknecht | **Locality:** | |
| **Date Desc.:** | 13/06/94 | **Elevation:** | No Data |
| **Map Ref.:** | | **Rainfall:** | No Data |
| **Northing/Long.:** | 8272582 AMG zone: 52 | **Runoff:** | No Data |
| **Easting/Lat.:** | 497263 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:** N/A
**ASC Confidence:** Confidence level not specified

**Mapping Unit:** N/A
**Principal Profile Form:** N/A
**Great Soil Group:** N/A

## Site

No effective disturbance other than grazing by hoofed animals

## Vegetation:

## Surface Coarse

## Profile

A11 0 - 0.06 m Dark greyish brown (10YR4/2-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Granular; Rough-ped fabric; Dry; Firm consistence; Field pH 6.9 (pH meter); Clear change to -

A12 0.06 - 0.25 m Dark greyish brown (2.5Y4/2-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Dry; Very firm consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Field pH 7.1 (pH meter); Gradual change to -

B21 0.25 - 1.02 m Dark greyish brown (2.5Y4/2-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Prismatic; Smooth-ped fabric; Moderately moist; Strong consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Concretions; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Field pH 8.1 (pH meter); Clear change to -

B22 1.02 - 1.8 m Brown (7.5YR4/3-Moist); ; Medium clay; Moderate grade of structure, 50-100 mm, Angular blocky; Smooth-ped fabric; Moist; Strong consistence; Few (2 - 10 %), Gypseous, Medium (2 -6 mm), Crystals; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Field pH 8 (pH meter);

## Morphological Notes

## Observation Notes

## Site Notes

Site is gilgaied with 5mm crust and prominent cracks which extend to 60cms. Main roots to 75cms and fine to 150. Primary structure of layers3-5 - 5ABS. PEDAL GREY VERTOSOL Sampled: 0-6; 6-25; 25-72; 75-102; 102-180.

**Project Name:** **Knox Creek Plain survey (Kununurra)**
**Project Code:** **KNX** **Site ID:** **0138** **Observation** **1**
**Agency Name:** **Agriculture Western Australia**

## Laboratory Test Results:

| Depth | pH | 1:5 EC | Exchangeable Cations | | | | Exchangeable | CEC | ECEC | ESP |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ca | Mg | K | Na | Acidity | | | |
| m | | dS/m | Cmol (+)/kg | | | | | | | % |
| 0 - 0.06 | 6.1B<br>6.6H | 23B | 12.08A | 13.99 | 1.2 | 0.33 | | | 27.6D | |
| 0.06 - 0.25 | 6.4B<br>6.8H | 31B | 15.1A | 14.32 | 0.91 | 0.63 | | | 30.96D | |
| 0.25 - 0.72 | 7.2B<br>7.6H | 87B | 18.59A | 14.33 | 0.98 | 1.75 | | | 35.65D | |
| 0.72 - 1.02 | 7.9B<br>8.2H | 150B | 15.57E | 12.95 | 0.42 | 3.86 | | 29B | 32.8D | 13.31 |
| 1.02 - 1.8 | 7.8B<br>7.9H | 430B | 11.18E | 17.1 | 0.46 | 7.02 | | 29B | 35.76D | 24.21 |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Clay | | | | | | GV | CS | FS | Silt |
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | |
| 0 - 0.06<br>46.2 | | 0.63D | | 60B | 0.039E | | | | | | 13.8 |
| 0.06 - 0.25<br>50.5 | | 0.33D | | 40B | 0.021E | | | | | | 13.4 |
| 0.25 - 0.72<br>48.7 | | 0.3D | | 46B | 0.018E | | | | | | 13.9 |
| 0.72 - 1.02<br>50.3 | 2C | 0.3D | | 40B | 0.019E | | | | | | 14.1 |
| 1.02 - 1.8<br>47.5 | | 0.13D | | 36B | 0.01E | | | | | | 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 |
| 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 |

**Project Name:** **Knox Creek Plain survey (Kununurra)**
**Project Code:** **KNX** **Site ID:** **0138** **Observation** **1**
**Agency Name:** **Agriculture Western Australia**

| | |
|---|---|
| 5_NR | Water soluble Chloride - Cl(%) - Not recordede |
| 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) |