**Project Name:** **Katanning land resources survey**
**Project Code:** **KLC** **Site ID:** **0494** **Observation ID:** **1**
**Agency Name:** **Agriculture Western Australia**

## Site Information

| | | | |
|---|---|---|---|
| **Desc. By:** | Heather Percy | **Locality:** | |
| **Date Desc.:** | 07/10/92 | **Elevation:** | 315 metres |
| **Map Ref.:** | | **Rainfall:** | No Data |
| **Northing/Long.:** | 6341110 AMG zone: 50 | **Runoff:** | No Data |
| **Easting/Lat.:** | 517720 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 |

## Land Form

| | | | |
|---|---|---|---|
| **Rel/Slope Class:** | Undulating low hills 30-90m 3-10% | **Pattern Type:** | Low hills |
| **Morph. Type:** | Mid-slope | **Relief:** | 60 metres |
| **Elem. Type:** | Hillslope | **Slope Category:** | No Data |
| **Slope:** | 6 % | **Aspect:** | 0 degrees |

**Surface Soil Condition** Hardsetting, Hardsetting

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

## Soil Classification

**Australian Soil Classification:** **Mapping Unit:** N/A
Haplic Eutrophic Red Chromosol **Principal Profile Form:** Dr2.22
**ASC Confidence:** **Great Soil Group:** N/A
All necessary analytical data are available.

**Site** Complete clearing. Pasture, native or improved, cultivated at some stage

**Vegetation:**

**Surface Coarse** 2-10%, medium gravelly, 6-20mm, subangular, Dolerite; No surface coarse fragments

## Profile

A1 0 - 0.08 m Very dusky red (10R2/2-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Moist; Loose consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Clear, Smooth change to -

A2 0.08 - 0.25 m Reddish brown (2.5YR4/4-Moist); , 0-0% ; Coarse sandy loam; Massive grade of structure; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6.5 (Raupach); Common, fine (1-2mm) roots; Clear, Smooth change to -

B21t 0.25 - 0.45 m Red (2.5YR4/6-Moist); , 0-0% ; Medium clay; Strong grade of structure, 50-100 mm, Polyhedral; 20-50 mm, Polyhedral; Rough-ped fabric; Moderately moist; Very firm consistence; Field pH 7.5 (Raupach); Few, fine (1-2mm) roots; Gradual, Wavy change to -

B22t 0.45 - 0.85 m Brown (7.5YR4/4-Moist); , 0-0% ; Medium clay; Strong grade of structure, 50-100 mm, Polyhedral; 20-50 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Field pH 7.5 (Raupach); Few, fine (1-2mm) roots; Clear, Wavy change to -

C 0.85 - 1.5 m Dark yellowish brown (10YR4/6-Moist); Substrate influence, 10YR31, 2-10% , 0-5mm, Distinct; Light clay; Massive grade of structure; Dry; 10-20%, fine gravelly, 2-6mm, subangular, Gabbro, coarse fragments; Field pH 7.5 (Raupach); Abrupt, Smooth change to -

R 1.5 - m Rock

## Morphological Notes

| | |
|---|---|
| B21t | Parting to 5 PO |
| B22t | Parting to 5 PO |
| C | Weathered dolerite |
| R | Dolerite |

**Observation Notes**

**Site Notes**

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**Laboratory Test Results:**

| Depth | pH | 1:5 EC | Exchangeable Cations Ca | Mg | K | Na | Exchangeable Acidity | CEC | ECEC | ESP |
|---|---|---|---|---|---|---|---|---|---|---|
| m | | dS/m | | | | Cmol (+)/kg | | | | % |
| 0 - 0.08 | 6.3B 6.6H | 8B | 6.45A | 1.01 | 0.54 | 0.2 | | | 8.2D | |
| 0 - 0.1 | 5.2B 6H | 11B | | | | | | | | |
| 0 - 0.08 | 6.3B 6.6H | 8B | 6.45A | 1.01 | 0.54 | 0.2 | | | 8.2D | |
| 0 - 0.11 | 5.8B | | | | | | | | | |
| 0 - 0.1 | 5.2B 6H | 11B | | | | | | | | |
| 0.08 - 0.25 | 5.7B 6.9H | 2B | 4.05A | 0.88 | 0.21 | 0.13 | | | 5.27D | |
| 0.08 - 0.25 | 5.7B 6.9H | 2B | 4.05A | 0.88 | 0.21 | 0.13 | | | 5.27D | |
| 0.16 - 0.26 | 5.87B | | | | | | | | | |
| 0.25 - 0.45 | 6.2B 7.5H | 2B | 7.65A | 3.64 | 0.16 | 0.23 | | | 11.68D | |
| 0.25 - 0.45 | 6.2B 7.5H | 2B | 7.65A | 3.64 | 0.16 | 0.23 | | | 11.68D | |
| 0.36 - 0.46 | 6.34B | | | | | | | | | |
| 0.45 - 0.85 | 6.1B 7.5H | 2B | 18.02A | 10.29 | 0.39 | 0.54 | | | 29.24D | |
| 0.45 - 0.85 | 6.1B 7.5H | 2B | 18.02A | 10.29 | 0.39 | 0.54 | | | 29.24D | |
| 0.85 - 1.5 | 6.5B 7.7H | 2B | 14.95A | 8 | 0.24 | 0.51 | | | 23.7D | |
| 0.85 - 1.5 | 6.5B 7.7H | 2B | 14.95A | 8 | 0.24 | 0.51 | | | 23.7D | |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis GV | CS | FS | Silt | Clay |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0 - 0.08 | | 1.19D | | 140B | 0.096E | | | | | | 9.8 | 9.6 |
| 0 - 0.1 | | 1.71D | | 180B | 0.14E | | | | | | | |
| 0 - 0.08 | | 1.19D | | 140B | 0.096E | | | | | | 9.8 | 9.6 |
| 0 - 0.11 | | | | | | | | | | | | |
| 0 - 0.1 | | 1.71D | | 180B | 0.14E | | | | | | | |
| 0.08 - 0.25 | | 0.25D | | 46B | 0.024E | | | | | | 7.4 | 11.7 |
| 0.08 - 0.25 | | 0.25D | | 46B | 0.024E | | | | | | 7.4 | 11.7 |
| 0.16 - 0.26 | | | | | | | | | | | | |
| 0.25 - 0.45 | | 0.18D | | 29B | 0.022E | | | | | | 7.6 | 28 |
| 0.25 - 0.45 | | 0.18D | | 29B | 0.022E | | | | | | 7.6 | 28 |
| 0.36 - 0.46 | | | | | | | | | | | | |
| 0.45 - 0.85 | | 0.21D | | 84B | 0.024E | | | | | | 11.9 | 41.4 |
| 0.45 - 0.85 | | 0.21D | | 84B | 0.024E | | | | | | 11.9 | 41.4 |
| 0.85 - 1.5 | | 0.04D | | 690B | 0.005E | | | | | | 6.3 | 5.8 |
| 0.85 - 1.5 | | 0.04D | | 690B | 0.005E | | | | | | 6.3 | |

5.8

**Laboratory Analyses Completed for this profile**

15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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| | |
|---|---|
| 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 |
| 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 |
| 18A1_NR | Bicarbonate-extractable potassium (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_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) |