Project Name: Katanning land resources survey

Project Code: KLC Site ID: 0143 Observation ID: 1

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Heather Percy Locality:

Date Desc.:04/12/91Elevation:288 metresMap Ref.:Rainfall:No Data

Northing/Long.: 6333960 AMG zone: 50 Runoff: No Data
Easting/Lat.: 500760 Datum: AGD84 Drainage: Imperfectly 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: Gently undulating rises 9-30m 1-3% Pattern Type: Rises

Morph. Type:FlatRelief:20 metresElem. Type:Valley flatSlope Category:No DataSlope:1 %Aspect:180 degrees

<u>Surface Soil Condition</u> Hardsetting, Hardsetting

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

**Soil Classification** 

 Australian Soil Classification:
 Mapping Unit:
 N/A

 Ferric Mesotrophic Grey Chromosol
 Principal Profile Form:
 Dy2.52

 ASC Confidence:
 Great Soil Group:
 N/A

All necessary analytical data are available.

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

<u>Vegetation:</u>

Surface Coarse

No surface coarse fragments; No surface coarse fragments

**Profile** 

A1 0 - 0.1 m Very dark greyish brown (10YR3/2-Moist); , 0-0%; Clayey sand; Weak grade of structure,

10-20 mm,

Subangular blocky; Rough-ped fabric; Dry; 10-20%, subrounded, Quartz, coarse

fragments; 20-50%,

subrounded, Ironstone, coarse fragments; Field pH 6.5 (Raupach); Abundant, fine (1-2mm) roots; Abrupt,

Smooth change to -

B2 0.1 - 0.4 m

Sandy (grains

Pale brown (10YR6/3-Moist); , 0-0%; Sandy clay loam; Massive grade of structure;

prominent) fabric; Dry; 50-90%, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous,

Coarse (6 - 20 mm), Concretions; Common (10 - 20 %), Ferruginous, Fine (0 - 2 mm),

Root linings;

Field pH 6 (Raupach); Many, fine (1-2mm) roots; Abrupt, Irregular change to -

C1 0.4 - 1 m

Light brownish grey (10YR6/2-Moist); Mottles, 10YR56, 20-50% , 30-mm, Distinct; Sandy

loam; Massive

grade of structure; Sandy (grains prominent) fabric; Dry; 20-50%, Quartz, coarse

fragments; Very many

(50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Fragments; Field pH 7 (Raupach);

Common, fine (1-

2mm) roots; Clear, Smooth change to -

C2 1 - 1.1 m

Light grey (10YR7/1-Moist); Mottles, 10YR68, 10-20%, 5-15mm, Distinct; Sandy clay

loam; Massive

grade of structure; Moderately moist; 20-50%, Ironstone, coarse fragments; Common (10

- 20 %),

Ferruginous, Coarse (6 - 20 mm), Fragments; Field pH 7 (Raupach);

**Morphological Notes** 

FUQZ&MUIS

B2 F QZ F,M,C U IS IS CEMENTED W. BY CL

C1 F QZ & F,M S IS & KS IN MSL

C2 F,M S IS

**Observation Notes** 

Site Notes

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**Laboratory Test Results:** 

| Depth     | рН           | 1:5 EC | Ex<br>Ca | changeab<br>Mg | le Cations<br>K | Na   | Exchangeable<br>Acidity | CEC | ECEC  | ESP |
|-----------|--------------|--------|----------|----------------|-----------------|------|-------------------------|-----|-------|-----|
| m         |              | dS/m   | Ou .     | mg             |                 |      | (+)/kg                  |     |       | %   |
| 0 - 0.1   | 5.1B<br>5.8H | 9B     | 4.07H    | 0.76           | 0.13            | 0.18 | 0.07J                   |     | 5.14D |     |
| 0 - 0.1   | 5.1B<br>5.8H | 9B     | 4.07H    | 0.76           | 0.13            | 0.18 | 0.07J                   |     | 5.14D |     |
| 0.1 - 0.4 | 5.4B<br>6.2H | 4B     | 2.21H    | 0.94           | 0.06            | 0.16 | <0.02J                  |     | 3.37D |     |
| 0.1 - 0.4 | 5.4B<br>6.2H | 4B     | 2.21H    | 0.94           | 0.06            | 0.16 | <0.02J                  |     | 3.37D |     |
| 0.4 - 1   | 6.3B<br>6.5H | 10B    | 1.82H    | 1.81           | 0.02            | 0.33 | <0.02J                  |     | 3.98D |     |
| 0.4 - 1   | 6.3B<br>6.5H | 10B    | 1.82H    | 1.81           | 0.02            | 0.33 | <0.02J                  |     | 3.98D |     |
| 1 - 1.1   | 6.1B<br>6.3H | 6B     | 1.2H     | 2.6            | 0.02            | 0.26 | <0.02J                  |     | 4.08D |     |
| 1 - 1.1   | 6.1B<br>6.3H | 6B     | 1.2H     | 2.6            | 0.02            | 0.26 | <0.02J                  |     | 4.08D |     |

| Depth           | CaCO3 | Organic<br>C | Avail.<br>P | Total<br>P | Total<br>N | Total<br>K | Bulk<br>Density | G۷ | Size<br>FS | Analysis<br>Silt |
|-----------------|-------|--------------|-------------|------------|------------|------------|-----------------|----|------------|------------------|
| m               | %     | Clay<br>%    | mg/kg       | %          | %          | %          | Mg/m3           |    | %          |                  |
| 0 - 0.1<br>9.8  |       | 2.04D        |             | 160B       | 0.164E     |            |                 |    |            | 4.6              |
| 0 - 0.1<br>9.8  |       | 2.04D        |             | 160B       | 0.164E     |            |                 |    |            | 4.6              |
| 0.1 - 0.4<br>34 |       | 0.45D        |             | 54B        | 0.035E     |            |                 |    |            | 3.1              |
| 0.1 - 0.4<br>34 |       | 0.45D        |             | 54B        | 0.035E     |            |                 |    |            | 3.1              |
| 0.4 - 1<br>22.6 |       | 0.25D        |             | 37B        | 0.008E     |            |                 |    |            | 4.3              |
| 0.4 - 1<br>22.6 |       | 0.25D        |             | 37B        | 0.008E     |            |                 |    |            | 4.3              |
| 1 - 1.1<br>44.2 |       | 0.3D         |             | 26B        | 0.007E     |            |                 |    |            | 6.7              |
| 1 - 1.1<br>44.2 |       | 0.3D         |             | 26B        | 0.007E     |            |                 |    |            | 6.7              |

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

| 15_NR_CMR E | xchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available xchangeable bases (Ca/Mg ratio) - Not recorded |
|-------------|---|
|             | exchangeable AI - by compulsive exchange, no pretreatment for soluble salts   |
| 15E1_CA E   | exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble                                       |
| salts       |   |
| 15E1_K E    | exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts                                       |
|             | exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts                                       |
| 15E1_MN E   | exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts   |
| 15E1_NA E   | exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts                                       |
| 15J_BASES S | Sum of Bases  |
| 15N1_b E    | xchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations                                       |
| 3_NR E      | lectrical conductivity or soluble salts - Not recorded  |
| 4_NR p      | H of soil - Not recorded  |
| 4B_AL_NR A  | sluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded  |
| 4B1 p       | H of 1:5 soil/0.01M calcium chloride extract - direct   |
| 6A1_UC      | Organic carbon (%) - Uncorrected Walkley and Black method   |
| 7A1 T       | otal nitrogen - semimicro Kjeldahl, steam distillation  |
| 9A3 T       | otal Phosphorus (ppm) - semimicro kjeldahl, automated colour  |

9H1 P10\_1m2m

Anion storage capacity 1000 to 2000u particle size analysis, (method not recorded)

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P10\_20\_75 P10\_75\_106 P10\_gt2m P10\_NR\_C P10\_NR\_Saa P10\_NR\_Z P10106\_150 P10150\_180 20 to 75u particle size analysis, (method not recorded) 75 to 106u particle size analysis, (method not recorded) > 2mm particle size analysis, (method not recorded)

Clay (%) - Not recorded
Sand (%) - Not recorded arithmetic difference, auto generated
Silt (%) - Not recorded
106 to 150u particle size analysis, (method not recorded)
150 to 180u particle size analysis, (method not recorded) P10180\_300 180 to 300u particle size analysis, (method not recorded) P10300\_600 P106001000 300 to 600u particle size analysis, (method not recorded) 600 to 1000u particle size analysis, (method not recorded)