

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0492 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

|                        |                      |                   |              |
|------------------------|----------------------|-------------------|--------------|
| <b>Desc. By:</b>       | Heather Percy        | <b>Locality:</b>  |              |
| <b>Date Desc.:</b>     | 29/02/96             | <b>Elevation:</b> | 320 metres   |
| <b>Map Ref.:</b>       |                      | <b>Rainfall:</b>  | No Data      |
| <b>Northing/Long.:</b> | 6296600 AMG zone: 50 | <b>Runoff:</b>    | No Data      |
| <b>Easting/Lat.:</b>   | 621350 Datum: AGD84  | <b>Drainage:</b>  | Well drained |

#### Geology

|                      |          |                                    |         |
|----------------------|----------|------------------------------------|---------|
| <b>ExposureType:</b> | Soil pit | <b>Conf. Sub. is Parent. Mat.:</b> | No Data |
| <b>Geol. Ref.:</b>   | No Data  | <b>Substrate Material:</b>         | No Data |

#### Landform

**Rel/Slope Class:** Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

|                     |           |                        |             |
|---------------------|-----------|------------------------|-------------|
| <b>Morph. Type:</b> | Mid-slope | <b>Relief:</b>         | 25 metres   |
| <b>Elem. Type:</b>  | Hillslope | <b>Slope Category:</b> | No Data     |
| <b>Slope:</b>       | 2 %       | <b>Aspect:</b>         | 135 degrees |

**Surface Soil Condition** Hardsetting, Hardsetting

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

#### Soil Classification

|  |                                |        |
|--|--------------------------------|--------|
| <b>Australian Soil Classification:</b>       | <b>Mapping Unit:</b>           | N/A    |
| Ferric-Sodic Mesotrophic Brown Kandosol      | <b>Principal Profile Form:</b> | Dy4.11 |
| <b>ASC Confidence:</b>                       | <b>Great Soil Group:</b>       | N/A    |
| All necessary analytical data are available. |                                |        |

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

#### Vegetation

**Surface Coarse Fragments** 20-50%, medium gravelly, 6-20mm, subrounded, ; No surface coarse fragments

#### Profile Morphology

|  |  |
|--|--|
| <b>A11</b> 0 - 0.1 m<br>(grains)<br><br>20-50%, medium<br>(0-1mm) roots;       | Brown (10YR4/3-Moist); , 0-0% ; Clayey fine sand; Single grain grade of structure; Sandy prominent) fabric; Dry; 20-50%, fine gravelly, 2-6mm, subrounded, , coarse fragments; gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Many, very fine<br>Abrupt, Smooth change to - |
| <b>B1c</b> 0.1 - 0.2 m<br>Sandy (grains)<br><br>20-50%, medium<br>fine (0-1mm) | Yellowish brown (10YR5/6-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; prominent) fabric; Dry; 20-50%, fine gravelly, 2-6mm, subrounded, , coarse fragments; gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Common, very roots; Abrupt, Wavy change to -   |
| <b>B2c</b> 0.2 - 0.6 m<br>Dry; 20-50%,<br>20mm, subrounded, ,<br>change to -   | Yellowish brown (10YR5/8-Moist); , 0-0% ; Sandy clay loam; Massive grade of structure; fine gravelly, 2-6mm, subrounded, , coarse fragments; 20-50%, medium gravelly, 6-coarse fragments; Field pH 6.5 (Raupach); Few, very fine (0-1mm) roots; Clear, Irregular change to -                         |
| <b>C</b> 0.6 - 1.6 m<br>20% , 15-30mm,<br>20mm,<br>Nodules; Field              | White (10YR8/1-Moist); Mottles, 2.5YR46, 20-50% , 30-mm, Prominent; , 10YR56, 10-Distinct; Clay loam, sandy; Massive grade of structure; Dry; 20-50%, medium gravelly, 6-subrounded, , coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), pH 6 (Raupach);                        |

#### Morphological Notes

#### Observation Notes

#### Site Notes

Soil pit in Kuringup catchment. If loamy B horizon was 30 cm or deeper would be a duplex sandy gravel

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0492 **Observation** 1  
**Agency Name:** Agriculture Western Australia

**Laboratory Test Results:**

| Depth<br>m | pH   | 1:5 EC<br>dS/m    | Ca    | Exchangeable<br>Mg | Cations<br>K | Na<br>Cmol (+)/kg | Exchangeable<br>Acidity | CEC | ECEC  | ESP<br>% |
|------------|--|-------------------|-------|--------------------|--------------|-------------------|-------------------------|-----|-------|----------|
| 0 - 0.1    | 4.8B<br>5.7H<br>5.2B<br>6.2H<br>5.1B<br>6H | 14B<br>18B<br>14B | 3.46H | 1.37               | 0.87         | 0.2               | 0.11J                   |     | 5.9D  |          |
| 0 - 0.1    | 4.8B<br>5.7H<br>5.2B<br>6.2H<br>5.1B<br>6H | 14B<br>18B<br>14B | 3.46H | 1.37               | 0.87         | 0.2               | 0.11J                   |     | 5.9D  |          |
| 0 - 0.1    | 4.8B<br>5.7H<br>5.2B<br>6.2H<br>5.1B<br>6H | 14B<br>18B<br>14B | 3.46H | 1.37               | 0.87         | 0.2               | 0.11J                   |     | 5.9D  |          |
| 0 - 0.1    | 4.8B<br>5.7H<br>5.2B<br>6.2H<br>5.1B<br>6H | 14B<br>18B<br>14B | 3.46H | 1.37               | 0.87         | 0.2               | 0.11J                   |     | 5.9D  |          |
| 0 - 0.1    | 4.8B<br>5.7H<br>5.2B<br>6.2H<br>5.1B<br>6H | 14B<br>18B<br>14B | 3.46H | 1.37               | 0.87         | 0.2               | 0.11J                   |     | 5.9D  |          |
| 0.1 - 0.2  | 4.8B<br>5.9H<br>4.8B<br>6H                 | 4B<br>3B          | 1.62H | 1                  | 0.42         | 0.09              | 0.08J                   |     | 3.13D |          |
| 0.1 - 0.2  | 4.8B<br>5.9H<br>4.8B<br>6H                 | 4B<br>3B          | 1.62H | 1                  | 0.42         | 0.09              | 0.08J                   |     | 3.13D |          |
| 0.1 - 0.2  | 4.8B<br>5.9H<br>4.8B<br>6H                 | 4B<br>3B          | 1.62H | 1                  | 0.42         | 0.09              | 0.08J                   |     | 3.13D |          |
| 0.2 - 0.6  | 5.4B<br>6H                                 | 5B                | 1.03H | 3.02               | 0.18         | 0.19              |                         |     | 4.42D |          |
| 0.2 - 0.6  | 5.4B<br>6H                                 | 5B                | 1.03H | 3.02               | 0.18         | 0.19              |                         |     | 4.42D |          |
| 0.4 - 0.5  | 5.5B<br>6.1H                               | 4B                |       |                    |              |                   |                         |     |       |          |
| 0.6 - 0.9  | 5.4B<br>5.6H                               | 6B                | 0.33H | 3.09               | 0.02         | 0.22              | 0.02J                   |     | 3.66D |          |

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0492 **Observation** 1  
**Agency Name:** Agriculture Western Australia

|           |              |    |       |      |      |      |       |       |
|-----------|--------------|----|-------|------|------|------|-------|-------|
| 0.6 - 0.9 | 5.4B<br>5.6H | 6B | 0.33H | 3.09 | 0.02 | 0.22 | 0.02J | 3.66D |
| 0.9 - 1.3 | 5.3B<br>5.6H | 8B | 0.08H | 3.36 | 0.03 | 0.38 |       | 3.85D |
| 0.9 - 1.3 | 5.3B<br>5.6H | 8B | 0.08H | 3.36 | 0.03 | 0.38 |       | 3.85D |

| Depth     | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size | Analysis |
|-----------|-------|-----------|----------|---------|---------|---------|--------------|---------------|----------|
| m         | %     | Clay %    | mg/kg    | %       | %       | %       | Mg/m3        | GV CS FS      | Silt     |
| 0 - 0.1   |       | 2.29D     |          | 210B    | 0.183E  |         |              |               | 4.2      |
| 4.8       |       | 2.47D     |          | 220B    |         |         |              |               |          |
| 0 - 0.1   |       | 2.29D     |          | 210B    | 0.183E  |         |              |               | 4.2      |
| 4.8       |       | 2.47D     |          | 220B    |         |         |              |               |          |
| 0 - 0.1   |       | 2.29D     |          | 210B    | 0.183E  |         |              |               | 4.2      |
| 4.8       |       | 2.47D     |          | 220B    |         |         |              |               |          |
| 0 - 0.1   |       | 2.29D     |          | 210B    | 0.183E  |         |              |               | 4.2      |
| 4.8       |       | 2.47D     |          | 220B    |         |         |              |               |          |
| 0 - 0.1   |       | 2.29D     |          | 210B    | 0.183E  |         |              |               | 4.2      |
| 4.8       |       | 2.47D     |          | 220B    |         |         |              |               |          |
| 0.1 - 0.2 |       | 0.5D      |          | 51B     |         |         |              |               | 3        |
| 11.1      |       |           |          |         |         |         |              |               |          |
| 0.1 - 0.2 |       | 0.5D      |          | 51B     |         |         |              |               | 3        |
| 11.1      |       |           |          |         |         |         |              |               |          |
| 0.1 - 0.2 |       | 0.5D      |          | 51B     |         |         |              |               | 3        |
| 11.1      |       |           |          |         |         |         |              |               |          |
| 0.2 - 0.6 |       | 0.24D     |          | 41B     |         |         |              |               | 3.1      |
| 29.9      |       |           |          |         |         |         |              |               |          |
| 0.2 - 0.6 |       | 0.24D     |          | 41B     |         |         |              |               | 3.1      |
| 29.9      |       |           |          |         |         |         |              |               |          |
| 0.4 - 0.5 |       |           |          |         |         |         |              |               |          |
| 0.6 - 0.9 |       | 0.06D     |          | 26B     |         |         |              |               | 5.9      |
| 40.4      |       |           |          |         |         |         |              |               |          |
| 0.6 - 0.9 |       | 0.06D     |          | 26B     |         |         |              |               | 5.9      |
| 40.4      |       |           |          |         |         |         |              |               |          |
| 0.9 - 1.3 |       | 0.07D     |          | 22B     |         |         |              |               | 6.2      |
| 47.5      |       |           |          |         |         |         |              |               |          |
| 0.9 - 1.3 |       | 0.07D     |          | 22B     |         |         |              |               | 6.2      |
| 47.5      |       |           |          |         |         |         |              |               |          |

#### Laboratory Analyses Completed for this profile

|           |   |
|-----------|---|
| 15_NR_AL  | Aluminium Cation - meq per 100g of soil - Not recorded  |
| 15_NR_BSa | Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available               |
| 15_NR_CMV | Exchangeable bases (Ca/Mg ratio) - Not recorded   |
| 15_NR_MN  | Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded                                 |
| 15E1_AL   | Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts                     |
| 15E1_CA   | Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble salts |
| 15E1_K    | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts       |
| 15E1_MG   | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts       |
| 15E1_MN   | Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts             |
| 15E1_NA   | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts       |
| 15J_BASES | Sum of Bases  |
| 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   |
| 4B_AL_NR  | Aluminium in 1:5 soil/0.01M calcium chloride extract - method 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)   |

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0492 **Observation** 1  
**Agency Name:** Agriculture Western Australia

|            |   |
|------------|---|
| 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)    |