**Project Name:** WQA
**Project Code:** WQA **Site ID:** B602 **Observation ID:** 1
**Agency Name:** CSIRO Division of Soils (QLD)

## Site Information

| | | | |
|---|---|---|---|
| **Desc. By:** | G.D. Hubble | **Locality:** | |
| **Date Desc.:** | 01/09/69 | **Elevation:** | No Data |
| **Map Ref.:** | Sheet No. : 6948 1:100000 | **Rainfall:** | 221 |
| **Northing/Long.:** | 140.076666666667 | **Runoff:** | Rapid |
| **Easting/Lat.:** | -24.5333333333333 | **Drainage:** | Moderately well drained |

## Geology

| | | | |
|---|---|---|---|
| **ExposureType:** | Auger boring | **Conf. Sub. is Parent. Mat.:** | No Data |
| **Geol. Ref.:** | Klm | **Substrate Material:** | Auger boring, 0.75 m deep,Unconsolidated material (unidentified) |

## Land Form

| | | | |
|---|---|---|---|
| **Rel/Slope Class:** | Gently undulating plains <9m 1-3% | **Pattern Type:** | Plain |
| **Morph. Type:** | No Data | **Relief:** | No Data |
| **Elem. Type:** | Plain | **Slope Category:** | Very gently sloped |
| **Slope:** | 0 % | **Aspect:** | No Data |

**Surface Soil Condition (dry):** Surface crust

**Erosion:**

## Soil Classification

**Australian Soil Classification:**
Haplic Self-Mulching Brown Vertosol
**ASC Confidence:**
No analytical data are available but confidence is fair.

**Mapping Unit:** N/A
**Principal Profile Form:** Ug5.32
**Great Soil Group:** Brown clay

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

**Vegetation:**
Tall Strata - Forb, <0.25m, Mid-dense. *Species includes - None Recorded

**Surface Coarse Fragments:**

## Profile Morphology

| | | |
|---|---|---|
| A1 | 0 - 0.1 m | Brown (7.5YR5/4-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Granular; Dry; Loose consistence; 0-2%, fine gravelly, 2-6mm, Gravel, coarse fragments; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 6.9 (pH meter); Clear change to - |
| B2 | 0.1 - 0.2 m | Strong brown (7.5YR5/6-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 6.6 (pH meter); Gradual change to - |
| B2 | 0.2 - 0.3 m | Strong brown (7.5YR5/6-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 6.4 (pH meter); Gradual change to - |
| B2 | 0.3 - 0.6 m | Strong brown (7.5YR5/6-Dry); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 6.5 (pH meter); Gradual change to - |
| B2 | 0.6 - 0.75 m | Strong brown (7.5YR5/6-Dry); ; Medium clay; , Angular blocky; Dry; Strong consistence; Few (2 - 10 %), Gypseous, , Crystals; Field pH 6.6 (pH meter); Gradual change to - |
| | 0.75 - 0.9 m | Pale yellow (2.5Y8/4-Moist); ; Medium clay; Few (2 - 10 %), Gypseous, , Crystals; Field pH 6.8 (pH meter); |
| | 0.9 - 1.2 m | Brownish yellow (10YR6/6-Moist); ; Medium clay; Few (2 - 10 %), Gypseous, , Crystals; Field pH 6.7 (pH meter); |
| | 1.2 - 1.5 m | Pale yellow (2.5Y8/4-Moist); ; Medium clay; Few (2 - 10 %), Gypseous, , Crystals; Field pH 6.2 (pH meter); |
| | 1.5 - 1.8 m | Brownish yellow (10YR6/6-Moist); ; Few (2 - 10 %), Gypseous, , Crystals; Field pH 5.8 (pH meter); |

## Morphological Notes

## Observation Notes

ALTERNATING CLAY BANDS BELOW 75CM.

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NYAMA

**Site Notes**

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## 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 - 0.1 | 6.9H | 0.59B | | | | | | | | |
| 0.1 - 0.2 | 6.6H | 1.9B | | | | | | | | |
| 0.2 - 0.3 | 6.4H | 3B | | | | | | | | |
| 0.3 - 0.6 | 6.5H | 3.7B | | | | | | | | |
| 0.6 - 0.75 | 6.6H | 7.5B | | | | | | | | |
| 0.75 - 0.9 | 6.8H | 14.6B | | | | | | | | |
| 0.9 - 1.2 | 6.7H | 13.8B | | | | | | | | |
| 1.2 - 1.5 | 6.2H | 13.4B | | | | | | | | |
| 1.5 - 1.8 | 5.8H | 10B | | | | | | | | |

| 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 - 0.1 | | 0.24A | 38B | 0.052F | 0.035B | 0.83B | | | 4C | 39 | 7 | 50 |
| 0.1 - 0.2 | | | | | | | | | | | | |
| 0.2 - 0.3 | | | 17B | | | | | | | | | |
| 0.3 - 0.6 | | 0.16A | | 0.047F | 0.019B | 0.84B | | | 3C | 37 | 10 | 47 |
| 0.6 - 0.75 | | | | | | | | | | | | |
| 0.75 - 0.9 | | | | | | | | | | | | |
| 0.9 - 1.2 | | 0.02A | 10B | 0.077F | 0.016B | 0.79B | | | 1C | 20 | 23 | 38 |
| 1.2 - 1.5 | | | | | | | | | | | | |
| 1.5 - 1.8 | | | | 0.094F | | 0.88B | | | 1C | 11 | 30 | 53 |

| Depth | COLE | Gravimetric/Volumetric Water Contents | | | | | | | K sat | K unsat |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sat. | 0.05 Bar | 0.1 Bar | 0.5 Bar | 1 Bar | 5 Bar | 15 Bar | | |
| m | | g/g - m3/m3 | | | | | | | mm/h | mm/h |
| 0 - 0.1 | | | | | | | | | | |
| 0.1 - 0.2 | | | | | | | | | | |
| 0.2 - 0.3 | | | | | | | | | | |
| 0.3 - 0.6 | | | | | | | | | | |
| 0.6 - 0.75 | | | | | | | | | | |
| 0.75 - 0.9 | | | | | | | | | | |
| 0.9 - 1.2 | | | | | | | | | | |
| 1.2 - 1.5 | | | | | | | | | | |
| 1.5 - 1.8 | | | | | | | | | | |

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**Laboratory Analyses Completed for this profile**

| | |
|---|---|
| 10A_NR | Total element - S(%) - Not recorded |
| 17A_NR | Total element - K(%) - Not recorded |
| 2A1 | Air-dry moisture content |
| 3_NR | Electrical conductivity or soluble salts - Not recorded |
| 4_NR | pH of soil - Not recorded |
| 5_NR | Water soluble Chloride - Cl(%) - Not recordede |
| 6A1 | Organic carbon - Walkley and Black |
| 7_NR | Total nitrogen (%) - Not recorded |
| 9A_NR | Total element - P(%) - Not recorded |
| 9G_BSES | Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES) |
| P10_NR_C | Clay (%) - Not recorded |
| P10_NR_CS | Coarse sand (%) - Not recorded |
| P10_NR_FS | Fine sand (%) - Not recorded |
| P10_NR_Z | Silt (%) - Not recorded |
| XRD_C_Hm | Hematite - X-Ray Diffraction |
| XRD_C_Il | Illite - X-Ray Diffraction |
| XRD_C_Ka | Kaolin - X-Ray Diffraction |
| XRD_C_Mm | Montmorillonite - X-Ray Diffraction |
| XRD_C_Qz | Quartz - X-Ray Diffraction |
| XRD_C_Vm | Vermiculte - X-Ray Diffraction |