

Project Name: CAN
Project Code: CAN **Site ID:** CP247 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

| | | | |
|------------------------|----------------------------|-------------------|-------------------------|
| Desc. By: | Hook, Rosemary | Locality: | Hall |
| Date Desc.: | 04/09/86 | Elevation: | 586 metres |
| Map Ref.: | Sheet No. : 050569 1:50000 | Rainfall: | No Data |
| Northing/Long.: | 149.0430555 | Runoff: | No Data |
| Easting/Lat.: | -35.1636111 Datum: AGD66 | Drainage: | Moderately well drained |

Geology

| | | | |
|----------------------|---------|------------------------------------|-----------------|
| ExposureType: | No Data | Conf. Sub. is Parent. Mat.: | No Data |
| Geol. Ref.: | No Data | Substrate Material: | Quartz porphyry |

Landform

| | | | |
|-------------------------|------------------------------|------------------------|-----------|
| Rel/Slope Class: | Undulating rises 9-30m 3-10% | Pattern Type: | No Data |
| Morph. Type: | No Data | Relief: | 12 metres |
| Elem. Type: | No Data | Slope Category: | No Data |
| Slope: | 2 % | Aspect: | No Data |

Surface Soil Condition

Erosion

Soil Classification

| | | | |
|----------------------------------------|--------------------------------|--------------------------------|-----------|
| Australian Soil Classification: | N/A | Mapping Unit: | N/A |
| ASC Confidence: | Confidence level not specified | Principal Profile Form: | Gn4.1 |
| | | Great Soil Group: | Red earth |

Site Disturbance

Vegetation

Surface Coarse Fragments

Profile Morphology

| | | |
|-----|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A12 | 0.05 - 0.1 m | Dark yellowish brown (10YR4/4-Moist); Strong brown (7.5YR4/6-Moist); ; Fine sandy loam; Weak grade |
| | | coarse |
| | | of structure, 5-10 mm, Granular; Firm consistence; 0-2%, fine gravelly, 2-6mm, Quartz, fragments; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; |
| AB | 0.1 - 0.2 m | Strong brown (7.5YR4/6-Moist); ; Fine sandy clay loam; Weak grade of structure, 2-5 mm, |
| | | Granular; |
| | | Firm consistence; 0-2%, fine gravelly, 2-6mm, Quartz, coarse fragments; Very few (0 - 2 %), |
| | | Ferromanganiferous, Medium (2 -6 mm), Nodules; Gradual change to - |
| B | 0.25 - 0.3 m | Red (2.5YR4/6-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Subangular |
| | | blocky; Firm |
| | | consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Gradual change to - |
| B | 0.32 - 0.48 m | Red (2.5YR4/6-Moist); ; Light clay; Massive grade of structure; Firm consistence; 2-10%, |
| | | medium |
| | | gravelly, 6-20mm, Quartz, coarse fragments; Common (10 - 20 %), Ferromanganiferous, |
| | | Coarse (6 - 20 |
| | | mm), Nodules; |
| B | 0.48 - 0.62 m | Yellowish red (5YR4/6-Moist); ; Light clay; Massive grade of structure; Firm consistence; |
| | | 20-50%, |
| | | medium gravelly, 6-20mm, Quartz, coarse fragments; Many (20 - 50 %), |
| | | Ferromanganiferous, Coarse (6 |
| | | - 20 mm), Nodules; Clear change to - |
| B | 0.62 - 0.7 m | Pale brown (10YR6/3-Moist); ; Clayey sand; Massive grade of structure; Very weak |
| | | consistence; 50-90%, |
| | | medium gravelly, 6-20mm, Quartz, coarse fragments; Very many (50 - 100 %), |
| | | Ferromanganiferous, |
| | | Coarse (6 - 20 mm), Nodules; Clear change to - |
| B | 0.7 - 0.85 m | Pale red (2.5YR7/2-Moist); ; Heavy clay; Massive grade of structure; Firm consistence; |
| | | Few (2 - 10 %), |
| | | Ferromanganiferous, Coarse (6 - 20 mm), Nodules; |
| B | 0.85 - 0.95 m | Pale red (2.5YR7/2-Moist); ; Heavy clay; Massive grade of structure; Firm consistence; |

Very few (0 - 2

%), Ferromanganiferous, Coarse (6 - 20 mm), Nodules;

Morphological Notes

B gravelly
B gravelly
B very gravelly
B clayey
B with gravel
B with gravel; a few fine roots to 0.85 m.

Observation Notes

Site Notes

Ginninderra experimental station toposquence for Rosemary Hook's MSc program. CP247 is 20 m NE of CP246 (on hillcrest), approximately 250 m west of Bond/Willett sludge sites. Improved pasture land.

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Laboratory Test Results:

| Depth | pH | 1:5 EC | Ca | Exchangeable Mg | Cations K | Na | Exchangeable Acidity | CEC | ECEC | ESP |
|-------------|------|--------|-------|-----------------|-----------|-------------|----------------------|-----|------|-----|
| m | | dS/m | | | | Cmol (+)/kg | | | | % |
| 0.05 - 0.1 | 5A | 0.04A | 0.75F | 0.21 | 0.58 | 0.05 | | | | |
| 0.1 - 0.2 | 5A | 0.02A | 0.46F | 0.13 | 0.17 | 0 | | | | |
| 0.25 - 0.3 | 5.5A | 0.02A | 1.6F | 0.73 | 0.44 | 0.05 | | | | |
| 0.32 - 0.48 | 5.9A | 0.02A | 2.7F | 1.3 | 0.65 | 0.05 | | | | |
| 0.48 - 0.62 | 6.5A | 0.02A | 3.2F | 2.2 | 0.56 | 0.03 | | | | |
| 0.62 - 0.7 | 6.5A | 0.02A | 1.7F | 1.5 | 0.15 | 0.05 | | | | |
| 0.7 - 0.85 | 6.2A | 0.02A | 5.6F | 7.8 | 0.69 | 0.29 | | | | |
| 0.85 - 0.95 | 6A | 0.02A | 5.7F | 8.8 | 0.75 | 0.3 | | | | |

| Depth | CaCO ₃ | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis |
|-------------|-------------------|-----------|----------|---------|---------|---------|-------------------|------------------------|
| m | % | Clay % | mg/kg | % | % | % | Mg/m ³ | GV CS FS Silt |
| 0.05 - 0.1 | | 1.22A | | | | | | |
| 0.1 - 0.2 | | 0.44A | | | | | | |
| 0.25 - 0.3 | | 0.29A | | | | | | |
| 0.32 - 0.48 | | 0.24A | | | | | | |
| 0.48 - 0.62 | | 0.15A | | | | | | |
| 0.62 - 0.7 | | 0.14A | | | | | | |
| 0.7 - 0.85 | | 0.13A | | | | | | |
| 0.85 - 0.95 | | 0.13A | | | | | | |

Laboratory Analyses Completed for this profile

| | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15D1_CA soluble salts; | Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium acetate at pH 7.0, pretreatment for manual leach |
| 15D1_K manual leach | Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; |
| 15D1_MG manual leach | Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; |
| 15D1_NA manual leach | Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; |
| 15I4 | CEC measurement - titration of ammonium and chloride ions |
| 2A1 | Air-dry moisture content |
| 3A1 | EC of 1:5 soil/water extract |
| 4A1 | pH of 1:5 soil/water suspension |
| 5A1 | Chloride - 1:5 soil/water extract, potentiometric titration |
| 6A1 | Organic carbon - Walkley and Black |