

**Project Name:** BAC  
**Project Code:** BAC      **Site ID:** T479      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	G.G. Murtha	<b>Locality:</b>	On railway reserve W of Alooomba.
<b>Date Desc.:</b>	10/12/87	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	Sheet No. : 8063 1:100000	<b>Rainfall:</b>	0
<b>Northing/Long.:</b>	145.833055555556	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	-17.1086111111111	<b>Drainage:</b>	Imperfectly drained

**Geology**

<b>ExposureType:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Unconsolidated material (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Stagnant alluvial plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Level
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Melanic Dystrophic Brown Dermosol		<b>Principal Profile Form:</b>	Gn3.91
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Yellow podzolic soil
All necessary analytical data are available.			

**Site Disturbance:** Complete clearing. Pasture, native or improved, but never cultivated

**Vegetation:**

**Surface Coarse Fragments:** No surface coarse fragments

**Profile Morphology**

A11	0 - 0.15 m	Very dark greyish brown (10YR3/2-Moist); ; Loam; Strong grade of structure, 5-10 mm, Angular blocky; Moist; Weak consistence; Common, fine (1-2mm) roots; Diffuse change to -
A12	0.15 - 0.36 m	Very dark greyish brown (10YR3/2-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; Moist; Firm consistence; Common, fine (1-2mm) roots; Diffuse change to -
AB	0.36 - 0.52 m	Dark greyish brown (10YR4/2-Moist); , 10YR43, 20-50% , 15-30mm, Faint; , 20-50% , 15-30mm, Faint; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moist; Firm consistence; Few, fine (1-2mm) roots; Diffuse change to -
B21	0.52 - 0.74 m	Yellowish brown (10YR5/4-Moist); ; Light medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moist; Firm consistence; Diffuse change to -
B22	0.74 - 1.1 m	Yellowish brown (10YR5/5-Moist); , 5YR58, 0-2% , 0-5mm, Faint; , 0-2% , 0-5mm, Faint; Medium clay; Strong grade of structure, 2-5 mm, Angular blocky; Moist; Very firm consistence; Few (2 - 10 %), Manganiferous, Coarse (6 - 20 mm), Nodules; Diffuse change to -
B23	1.1 - 1.4 m	Strong brown (7.5YR5/6-Moist); , 5YR58, 10-20% , 0-5mm, Faint; , 10-20% , 0-5mm, Faint; Light medium clay; Moderate grade of structure, 2-5 mm, Angular blocky; Moist; Firm consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Diffuse change to -
BC	1.4 - 1.65 m	Strong brown (7.5YR5/6-Moist); , 10YR54, 10-20% , 5-15mm, Faint; , 10-20% , 5-15mm, Faint; Fine sandy medium clay; Massive grade of structure; Moist; Firm consistence; Common (10 - 20 %), Manganiferous, Coarse (6 - 20 mm), Soft segregations;

**Morphological Notes**

**Observation Notes**

IN VERY SLIGHT DEPRESSION: POSSIBLY 20CM LOWER THAN VIRGIL SURFACE: SOME SOILS WILL BE Gn3.71.

**Site Notes**

ALOOMBA

**Observation ID: 1**

**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 - 0.15	5.59A	0.049A	1.8H	1.29	0.3	0.03	0.41F	4.2A 7.4C	3.8F	0.71 0.41
0.15 - 0.36	5.51A	0.05A								
0.36 - 0.52	5.78A	0.014A	0.51H	0.75	0.05	<0.02	0.8F	2.9A 6.3C	2.1F	
0.52 - 0.74	5.68A	0.011A	0.62H	0.63	0.04	<0.02	0.65F	2.2A 4.6C	2F	
0.74 - 1.1	5.7A	0.012A	0.55H	0.63	0.04	<0.02	0.52F	2.9A 5C	1.8F	
1.1 - 1.4	5.71A	0.011A								
1.4 - 1.65	5.6A	0.013A	0.55H	0.74	0.03	0.02	0.44F	2.1A 3.2C	1.8F	0.95 0.63

Depth  m	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS		Silt	Clay
0 - 0.15		2.17C	16B	800A	0.09A	1.97A		4	15A	40	18	26
0.15 - 0.36		1.41C	5B		0.06A			0	7A	43	23	27
0.36 - 0.52		0.85C	4B	900A	0.03A	2.18A		0	9A	38	22	30
0.52 - 0.74			<2B					0	7A	38	22	33
0.74 - 1.1			7B					0	9A	37	22	32
1.1 - 1.4								0	6A	44	21	30
1.4 - 1.65								0	5A	54	15	25

[illegible]

**Project Name:** BAC  
**Project Code:** BAC      **Site ID:** T479      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Laboratory Analyses Completed for this profile**

10A1	Total sulfur - X-ray fluorescence
12_XRF_CU	Total element - Cu(mg/kg) - X-Ray Fluorescence
12_XRF_FE	Total element - Fe(%) - X-Ray Fluorescence
12_XRF_MN	Total element - Mn(mg/kg) - X-Ray Fluorescence
12_XRF_ZN	Total element - Zn(mg/kg) - X-Ray Fluorescence
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CEC	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15E1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C	Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by titration to pH 8.4
15J1	Effective CEC
17A1	Total potassium - X-ray fluorescence
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6B3	Total organic carbon - high frequency induction furnace, infrared
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (BSES)
9H1	Phosphate retention
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P10_GRAV	Gravel (%)