

**Project Name:** WQA  
**Project Code:** WQA      **Site ID:** B589      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b> G.D. Hubble	<b>Locality:</b>
<b>Date Desc.:</b> 01/09/69	<b>Elevation:</b> 90 metres
<b>Map Ref.:</b> Sheet No. : 6649 1:100000	<b>Rainfall:</b> 203
<b>Northing/Long.:</b> 138.9375	<b>Runoff:</b> Slow
<b>Easting/Lat.:</b> -24.0375	<b>Drainage:</b> Poorly drained

#### Geology

<b>ExposureType:</b> Soil pit	<b>Conf. Sub. is Parent. Mat.:</b> No Data
<b>Geol. Ref.:</b> Cza	<b>Substrate Material:</b> Auger boring, 1.4 m deep, Clay

#### Land Form

<b>Rel/Slope Class:</b> No Data	<b>Pattern Type:</b> Plain
<b>Morph. Type:</b> No Data	<b>Relief:</b> 1 metres
<b>Elem. Type:</b> Plain	<b>Slope Category:</b> No Data
<b>Slope:</b> 0 %	<b>Aspect:</b> No Data

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Gypsic Crusty Brown Vertosol	<b>Principal Profile Form:</b> Ug5.24
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> Grey clay

No analytical data are available but confidence is fair.

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

#### Vegetation:

Tall Strata - Forb, <0.25m, Very sparse. \*Species includes - None Recorded

**Surface Coarse Fragments:** 2-10%, medium gravelly, 6-20mm, rounded, Gravel

#### Profile Morphology

A1	0 - 0.1 m	Light yellowish brown (10YR6/4-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Dry; Loose consistence; Very few (0 - 2 %), Calcareous, , Nodules; Gradual change to -
B2	0.1 - 0.2 m	Yellowish brown (10YR5/4-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Dry; Very firm consistence; Very few (0 - 2 %), Calcareous, , Nodules;
B2	0.2 - 0.3 m	Yellowish brown (10YR5/4-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Very firm consistence; Very few (0 - 2 %), Calcareous, , Nodules;
B2	0.3 - 0.6 m	Yellowish brown (10YR5/4-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Very firm consistence; Very few (0 - 2 %), Calcareous, , Nodules;
B2	0.6 - 0.75 m	Yellowish brown (10YR5/4-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; Very few (0 - 2 %), Calcareous, , Nodules; Very few (0 - 2 %), Gypseous, , Crystals;
B2	0.75 - 0.9 m	Yellowish brown (10YR5/4-Moist); ; Heavy clay; Moderate grade of structure, Angular blocky; Dry; Strong consistence; Very few (0 - 2 %), Calcareous, , Nodules; Very few (0 - 2 %), Gypseous, , Crystals;
B2	0.9 - 1.2 m	Yellowish brown (10YR5/4-Moist); ; Heavy clay; Moderate grade of structure, Angular blocky; Dry; Strong consistence; Very few (0 - 2 %), Calcareous, , Nodules; Common (10 - 20 %), Gypseous, , Crystals;
B2	1.2 - 1.4 m	Yellowish brown (10YR5/4-Moist); , 10YR72, 0-2% ; , 0-2% ; Heavy clay; Dry; Very firm consistence; Very few (0 - 2 %), Manganiferous, Medium (2 - 6 mm), Nodules; Many (20 - 50 %), Gypseous, , Crystals; Gradual change to -
C	1.4 - 1.5 m	Light yellowish brown (10YR6/4-Dry); , 10YR43, 20-50% , 0-5mm, Distinct; , 10YR32, 20-50% , 0-5mm, Distinct; Heavy clay; Few (2 - 10 %), Gypseous, , Crystals;
	1.5 - 1.8 m	Brownish yellow (10YR6/5-Dry); , 10YR72, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Heavy clay; Few (2 - 10 %), Gypseous, , Crystals;
	1.8 - 2 m	Brownish yellow (10YR6/5-Dry); , 2.5Y62, 20-50% , 5-15mm, Prominent; , 10YR66, 20-50% , 5-15mm, Prominent; Heavy clay; Very few (0 - 2 %), Gypseous, , Crystals;

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**Morphological Notes**

**Observation Notes**

140-200CM CLAY WITH SANDY BANDS. VEGETATION FORBLAND.

**Site Notes**

SANDRINGHAM

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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 - 0.1	8.4H	0.041B	16.8K		1.1	1.3	0D			
0.1 - 0.2	8.8H	0.06B								
0.2 - 0.3	8.9H	0.092B								
0.3 - 0.6	8.5H	0.49B								
0.6 - 0.75	8.3H	1.22B								
0.75 - 0.9	7.9H	3.46B								
0.9 - 1.2	7.8H	17B								
1.2 - 1.4	7.4H	34.8B		10.4						
1.4 - 1.5	7.3H	7.1B								
1.5 - 1.8	7.2H	8.5B								
1.8 - 2	7.1H	9.6B								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.1	0.42C	0.18E	32B	0.03F	0.025B	1.15B			10C	42	5	41
0.1 - 0.2	0.56C											
0.2 - 0.3	0.59C	0.16E	37B	0.031F	0.021B	1.2B			9C	40	9	39
0.3 - 0.6	0.96C			0.025F	0.021B	0.94B						
0.6 - 0.75	0.98C											
0.75 - 0.9	0.73C											
0.9 - 1.2	0.06C	0.03E		0.034F	0.011B	0.97B			9C	28	4	43
1.2 - 1.4	0C											
1.4 - 1.5	0.01C											
1.5 - 1.8	0.02C											
1.8 - 2	0C	0.02E	119B	0.057F	0.14B	1.45B			8C	10	19	51

[illegible]

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**Laboratory Analyses Completed for this profile**

10A_NR	Total element - S(%) - Not recorded
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
17A_NR	Total element - K(%) - Not recorded
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
2_LOI	Loss on Ignition (%)
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
5_NR	Water soluble Chloride - Cl(%) - Not recorded
6Z	Organic carbon (%) - Not recorded
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