

SITE SFS 16

Land unit: Basalt Alluvium

Aust. Soil Class.: Haplic, Self-mulching; Black VERTOSOL (confidence level 1)

General Land Unit Description:

This land unit consists of the smaller swamps and depression which occur on the basalt plains. Grey Vertosols tend to dominate the smaller swamps and depressions on the plains. On the other hand, Black Vertosols are commonly found in the swamps and depressions associated with the stony rise landscapes and the larger alluvial plains. Both soil types are typically sodic at depth and imperfectly drained. There are minor occurrences of Sodosols. In some areas of the basalt plain, this land unit would have been incorporated into the basalt land units.

Site Description:

Geology: Recent alluvial over Quaternary Basalt

Landform pattern: Plain

Position in landscape: Drainage depression

Internal drainage: Imperfectly drained

Soil Profile Morphology:

Surface Soil

Ap 0-20 cm Very dark grey (10YR 3/1); *heavy clay*; strongly pedal; self mulching surface, polyhedral (2-20 mm); clear boundary to:

Subsoil

B21t 20-60/70 cm Very dark grey (10YR 3/1); *heavy clay*; strong prismatic (>30 cm diameter); slickensides at ped bases; clear boundary to:

B22ss 60/70-100/110 cm Grey (5Y 5/1) with common (20%) fine to medium yellowish brown (10YR 5/6) mottles; *heavy clay*; prominent slickensides becoming larger (>30 cm) at depth; gradual boundary to:

B23ss 110+ cm Pale olive (5Y 6/4) with common fine yellowish brown (10YR 5/6) mottles; *heavy clay*; prominent slickensides.



Subsoil Ped

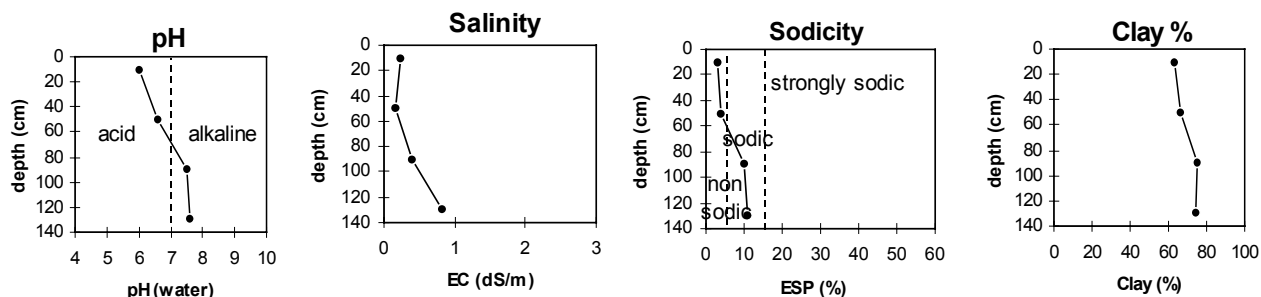
Key profile features:

- Clay texture through soil profile.
- Significant cracking when profile is dry.
- Prominent slickensides in subsoil.

Soil Profile Characteristics:

	pH	Salinity Rating	Sodicity	Dispersion
Surface (A1 horizon)	Strongly Acid	Low	Non-Sodic	None
Subsoil (B21 horizon)	Moderately Acid	Low	Non-Sodic	None ¹
Deeper subsoil (at 130+ cm)	Slightly Alkaline	Medium	Sodic	None ¹

¹ Moderate dispersion after remoulding



Horizon	Horizon Depth	pH (water)	pH CaCl ₂	EC dS/m	NaCl %	Exchangeable Cations				Ex Al mg/kg	Ex Ac meq/100g	Field pF2.5	Wilting Point pF4.2	Coarse Sand (0.02-0.2mm)	Fine Sand (0.02-0.2mm)	Silt (0.02-0.02MM)	Clay (<0.002mm)
						Ca	Mg	K	Na								
Ap	10	6.0	5.3	0.23		16	18	0.68	1.5	11	21	56.1	35.6	1.7	9.6	13.5	63.0
B21	50	6.6	5.6	0.16		15	21	0.84	2.2		16	58.9	33.2	0.3	8.5	17.5	66.5
B22	90	7.5	6.8	0.41	0.07	15	26	0.7	4.4			57.9	39.8	0.3	7.7	11.5	75.0
B23	130	7.6	7.1	0.81	0.14	13	25	0.9	4.8					0.2	6.9	10.0	74.0