Site Code [1] **SW99**

Trenched section at SW99 showing disappearance of A2 away from drainage line

Location Steiglitz road, north west of junction with Geelong-Ballan road

Landform Gently undulating plain (basalt plain)

Geology Neogene sediments (Moorabool Viaduct)

Element Drainage depression

Slope 2%

Aspect South-west

This profile is 45 metres upslope from SW100

Vertic, Mottled-Hypernatic, Grey SODOSOL

Horizon	Depth (cm)	Description
Ap	0–5	Dark brown (10YR3/3); sandy loam, clear boundary to:
A2	20-35	Brown (10YR4/3 moist), bleached (2.5Y6/3 dry) with very pale brown to yellow diffuse mottling; loamy sand; massive structure when dry, very firm dry consistence ; pH 6.6; sharp boundary to:
B21t	50-70	Dark grey (10YR4/1 moist and dry) with clay coatings on well developed very coarse (100–300 mm) prismatic structure having strong brown (10YR4/6) sandy interiors; parting to smaller prismatic structure and coarse angular blocky/polyhedral structure; strong consistence (dry); large slickensides at base of prisms; pH 8.1; clear boundary to:
B22(ss)t	95-110	Reddish brown (5YR4/4 moist and dry) clay surrounding light olive brown (2.5Y5/3) sandy clay matrix, polyhedral structure with many lenticular clay peds; slickensides; pH 9.0; diffuse boundary to:
B23t		Profile becoming redder and sandier with depth (Moorabool Viaduct sediments)

Management considerations:

'Spewy' topsoil and sharp boundary to coarsely structured sodic clay subsoil render this soil very prone to waterlogging. The soil is situated at the upper end (initiation) of a drainage line carrying excess water from the basalt plain to the Moorabool River. This is highly erodible soil which should have permanent vegetation cover to protect river water quality. See also site SW100 for an associated soil type —these two sites are only 45 metres apart.

[1] Source: MacEwan R, Imhof M (in press) Major Soils and Landscapes along the Southwest Gas Pipeline 1999. DPI

Analytical data[2]

Site SW99	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC –10kPa	PWP –1500kPa	KS	FS	Z	C
Horizon	cm	H_2O	$CaCl_2$	dS/m	%	$cmol_c/kg$	$cmol_c/kg$	$cmol_c/kg$	$cmol_c/kg$	mg/kg	$cmol_c/kg$	%	%	%	%	%	%
Ap	0-5	5.4	4.7	0.14	N/R	2.8	1.6	0.42	0.38	<10	8.3	14.6	6.8	26.8	47.1	8.0	14.5
A2	20-35	6.6	5.9	0.12	N/R	0.73	0.65	0.07	0.59	N/R	1.5	7.7	2.2	28.5	54.8	10.5	7.0
B21(ss)t	50-70	8.1	7.0	0.33	0.02	4.6	6.8	0.7	6.7	N/R	N/R	38.0	19.7	16.5	29.2	1.0	48.5
B22t	95-110	9.0	8.0	0.36	0.03	5.2	8.7	0.7	8.8	N/R	N/R	N/R	N/R	19.0	31.4	8.5	38.5

[2] Source: Government of Victoria State Chemistry Laboratory.