

Site Code¹ SW82

Location East of Colac, between Warncoort-Birregurra road and railway line



Excavation at site of SW82 and SW83

Landform Gently undulating plain

Geology Quaternary basalt

Element Flat

Slope 0

Aspect 0



Vertic (& Sodic), Calcic Black CHROMOSOL

Horizon	Depth (cm)	Description
A1	0-10	Very dark brown (10YR2/2 moist and 10YR4/2 dry); pH 5.5; loam; clear boundary to:
B21	10-40	Black (10YR3/2 moist); medium heavy clay; medium to fine (5-20 mm) polyhedral structure; strong consistence; pH 5.8; gradual boundary to:
B22	40-90	Black (10YR2/1 moist); heavy clay; some pockets of fine buckshot; coarse prismatic, parting to fine lenticular structure; strong consistence; pH 6.8; abrupt boundary to:
B23ssgk	90 +	Dark greyish brown (10YR4/2 moist) with brownish yellow (10YR6/6 moist) and minor (<2%), light olive brown (2.5Y5/4 moist) mottles; soft carbonate and strongly vertic; medium (20-50 mm) prismatic structure; strong consistence; pH 8.5

Management considerations

The soil is a ‘puff’ in a variable Gilgai complex comprising Sodosols (**SW83**), Chromosols and Vertosols (**SW84**). Waterlogging and shrink-swell activity of the clays are the principle hazards in this landscape.

Analytical data

Site SW82	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC	PWP	KS	FS	Z	C
		cm	H ₂ O														
A1	0-10	5.5	4.9	0.21	N/R	6.2	3.2	0.61	0.37	<10	12	25.6	10.8	22.9	37	13.5	20.5
B21	10-40	5.8	4.8	0.10	<0.01	7.2	7.9	0.4	0.5	18	15	39.6	24.6	12.5	20.5	7	55.5
B22	40-90	6.8	5.6	0.09	N/R	7.9	13	0.41	1.8	N/R	N/R	45.5	26.7	10.6	15.7	5.5	63
B23	90+	8.5	7.3	0.17	N/R	6.5	12	0.27	3.2	N/R	N/R	N/R	N/R	17.8	24.6	7	48

¹ Source: MacEwan R, Imhof M (in press) Major Soils and Landscapes along the Southwest Gas Pipeline 1999. DPI. (Analytical data from Government of Victoria, State Chemistry Laboratory)

Site Code ² SW83

Location East of Colac, between Warncoort-Birregurra road and railway line

Landform Gently undulating plain

Geology Quaternary basalt

Element Flat

Slope 0

Aspect 0



Gilgai features close to SW82 and SW83



Vertic (& Calcic), Subnatric, Black SODOSOL

Horizon	Depth (cm)	Description
A1	0-10	Very dark brown (10YR2/2 moist), dark greyish brown (10YR4/2 dry); loam; pH 5.5; clear change to:
A2	10-60	Dark greyish brown (10YR4/2 moist), conspicuously bleached; (10YR7/2 dry); sandy clay loam; apedal massive structure; few [2%], fine buckshot nodules [concentrated in pockets]; pH 6.6; abrupt and wavy change to:
B21	60-90	Black (10YR2/1 moist); heavy clay; few pockets of ferruginous fine gravel; coarse prismatic structure; pH 6.8; abrupt change to:
B22	90 +	Mottled dark greyish brown grey with (10YR6/1 moist) and minor [<2%], brownish yellow (10YR6/8 moist) and light olive brown (2.5Y5/4 moist) mottles, soft calcareous segregations; strongly vertic; medium clay; medium prismatic structure; pH 8.6

Management considerations

The soil is a 'hollow' in a variable Gilgai complex comprising Sodosols, Chromosols (**SW82**) and Vertosols (**SW84**). Waterlogging and shrink-swell activity of the clays are the principle hazards in this landscape.

Analytical data

Site SW83	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC	PWP	KS	FS	Z	C
		H ₂ O	CaCl ₂														
Horizon	cm	H ₂ O	CaCl ₂	dS/m	%	cmolc/kg	cmolc/kg	cmolc/kg	cmolc/kg	mg/kg	cmolc/kg	%	%	%	%	%	%
A1	0-10	5.5	4.9	0.21	N/R	6.2	3.2	0.61	0.37	<10	12	25.6	10.8	22.9	37	13.5	20.5
A2	10-60	6.6	6	0.06	N/R	1.7	1.4	<0.05	0.18	N/R	3.3	16.6	3.8	28.6	46.2	14	11.5
B21	60-90	6.8	5.6	0.11	N/R	5.9	11	0.3	2.4	N/R	11	39.4	22.4	14.4	21.4	7	54.5
B22	90+	8.6	7.5	0.25	N/R	7	12	0.28	4	N/R	N/R	39.3	19.9	15.3	28.4	7.5	46.5

² Source: MacEwan R, Imhof M (in press) Major Soils and Landscapes along the Southwest Gas Pipeline 1999. DPI (Analytical data from Government of Victoria, State Chemistry Laboratory)