

WET SALINE SOIL

General Description: *Thin black saline clay overlying a highly calcareous sandy soil with variable calcrete pans and fragments and a saline watertable within 100 cm*

Landform: Highly saline flats and salt pans

Substrate: Interbedded limestone and clay

Vegetation: Samphire and salt water tea tree

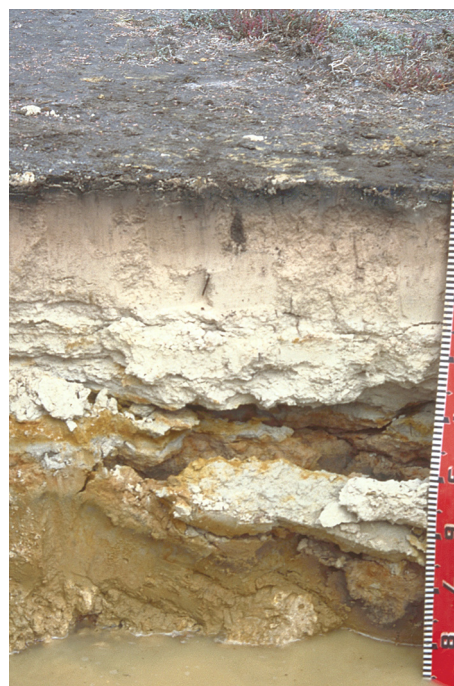


Type Site:	Site No.:	SE034	1:50,000 mapsheet:	6825-4 (Santo)
	Hundred:	Santo	Easting:	375360
	Section:	53	Northing:	6009630
	Sampling date:	24/03/1995	Annual rainfall:	535 mm average

Samphire flat with 2-10% shells (2-6 mm) on surface. Watertable at 65 cm, EC = 46.8 dS/m.

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-7	Black massive highly calcareous light clay. Abrupt to:
7-23	Very pale brown very highly calcareous massive soft clayey sand. Abrupt to:
23-40	Weak calcrete pan. Abrupt to:
40-53	White, yellow and orange mottled soft clayey sand. Abrupt to:
53-65	Greyish brown and yellow soft clayey sand. Clear to:
65-80	(Below watertable). Yellow and olive mottled soft clayey sand. Abrupt to:
80-100	Moderately strong calcrete pan.



Classification: Petrocalcic, Calcarosolic, Salic Hydrosol; medium, slightly gravelly, clayey / sandy, shallow



Summary of Properties

Drainage: Very poorly drained. Watertable at 65 cm or shallower throughout the year.

Fertility: Not applicable.

pH: Alkaline to strongly alkaline throughout.

Rooting depth: Samphire roots to 40 cm.

Barriers to root growth:

Physical: Calcrete pan.

Chemical: Extreme salinity.

Waterholding capacity: Not applicable.

Seedling emergence: Not applicable.

Workability: Not applicable.

Erosion Potential:

Water: Low.

Wind: Low.

Laboratory Data

Depth cm	pH H ₂ O	pH CaCl ₂	CO ₃ %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO ₄ mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
											Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
Paddock	9.0	8.9	41.8	24.0	61.8	1.6	11	496	2374	21.8	-	-	-	-	9.5	5.25	7.23	0.71	0.31	7.5
0-7	9.0	8.8	44.7	15.8	53.8	2.3	16	539	1976	33.2	-	-	-	-	10.9	2.82	8.27	4.61	0.47	42.3
7-23	9.3	9.1	20.7	5.50	40.4	1.0	<4	143	722	4.7	-	-	-	-	2.3	2.51	1.91	0.26	0.13	11.3
23-40	9.3	8.8	31.1	3.03	27.3	0.4	<4	101	331	3.0	-	-	-	-	1.5	1.48	1.30	0.27	0.16	18.0
40-53	9.3	8.8	10.6	3.20	30.6	<0.1	<4	112	318	2.9	-	-	-	-	1.4	1.39	1.29	0.14	0.13	10.0
53-65	8.9	8.6	0.3	2.83	28.9	0.1	<4	152	303	4.2	-	-	-	-	2.6	1.33	1.86	0.24	0.33	9.2
65-80	9.1	8.7	0.3	2.52	25.3	<0.1	<4	127	258	5.0	-	-	-	-	2.2	1.58	1.49	0.32	0.29	14.5
80-100	9.2	8.6	32.9	4.48	30.3	0.2	<4	131	564	3.9	-	-	-	-	1.7	1.82	1.33	0.14	0.15	8.2

Note: Paddock sample bulked from 20 cores (0-10 cm) taken around the pit.

CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements.

ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.

Further information: [DEWNR Soil and Land Program](#)

