

Project Name: Salmon Gums survey
Project Code: SGS **Site ID:** 0152 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Brendan Nicholas	Locality:	
Date Desc.:	21/09/98	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6316771 AMG zone: 51	Runoff:	No Data
Easting/Lat.:	389603 Datum: AGD84	Drainage:	Imperfectly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Landform

Rel/Slope Class: Gently undulating plains <9m 1-3% **Pattern Type:** Plain

Morph. Type:	Simple-slope	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	2.5 %	Aspect:	0 degrees

Surface Soil Condition Loose

Erosion (wind); (scald) (sheet) (wave) (rill) (mass)
(gully) (stbank) (tunnel)

Soil Classification

Australian Soil Classification:	Calcic Hypernatric Yellow Sodosol Medium Non-gravelly Clay-loamy Clayey Deep	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	N/A
Site Disturbance	Cultivation. Rainfed	Great Soil Group:	N/A

Vegetation

Surface Coarse Fragments No surface coarse fragments; No surface coarse fragments

Profile Morphology

A1	0 - 0.17 m	Greyish brown (10YR5/2-Moist); ; Sand; Single grain grade of structure; Smooth-ped fabric; Dry; Loose
		consistence; Field pH 6.9 (pH meter); Common, fine (1-2mm) roots; Clear, Smooth change to -
A2e	0.17 - 0.3 m	Very pale brown (10YR7/4-Moist); ; Sand; Massive grade of structure; Smooth-ped fabric; Moderately
		moist; Very weak consistence; Field pH 7.5 (pH meter); Common, fine (1-2mm) roots; Clear, Smooth change to -
B2tk	0.3 - 0.53 m	Pale olive (5Y6/3-Moist); ; Sandy clay loam; Strong grade of structure, 100-200 mm, Columnar; Rough-
		ped fabric; Moderately moist; Very strong consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm),
		Fragments; Soil matrix is Moderately calcareous; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
		Gradual, Smooth change to -
B2tk	0.53 - 0.8 m	Pale olive (5Y6/3-Moist); ; Sandy light clay; Massive grade of structure; Rough-ped fabric; Moderately
		moist; Very firm consistence; Soil matrix is Highly calcareous; Field pH 9.4 (pH meter); Few, very fine (0-
		1mm) roots; Gradual, Smooth change to -
B2tk	0.8 - 1.1 m	Light brownish grey (2.5Y6/3-Moist); ; Silty light clay; Massive grade of structure; Rough-ped fabric;
		Moderately moist; Very firm consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm),
		Fragments; Soil matrix is Highly calcareous; Field pH 9.2 (pH meter); Few, very fine (0-1mm) roots;
		Gradual, Smooth change to -
BC1k	1.1 - 1.35 m	Light yellowish brown (2.5Y6/4-Moist); ; Light clay; Massive grade of structure; Rough-ped fabric;
		Moderately moist; Very firm consistence; Soil matrix is Highly calcareous; Field pH 9.4

(pH meter);	Common, very fine (0-1mm) roots; Gradual, Smooth change to -
BC2k 1.35 - 1.6 m	Light yellowish brown (2.5Y6/4-Moist); ; Silty light clay; Massive grade of structure;
Rough-ped fabric;	Moderately moist; Very strong consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm),
Fragments;	Soil matrix is Highly calcareous; Field pH 9.1 (pH meter); Few, very fine (0-1mm) roots;
Clear, Smooth	change to -
C1k 1.6 - 1.7 m	Pale yellow (5Y7/3-Moist); ; Light medium clay; 100-200 mm, Polyhedral; Moderately
moist; Very strong	consistence; Soil matrix is Highly calcareous; Field pH 8.9 (pH meter); Few, very fine (0-
1mm) roots;	

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Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.17	5.9B 6.9H	5B	3.34A	0.61	0.37	0.09			4.41D	
0 - 0.05 0.17 - 0.3	7.1B 8.3H	4B	1.72E	0.31	0.18	0.16		3B	2.37D	5.33
0.17 - 0.22 0.3 - 0.53	8.6B 9.6H	23B	3.83E	3.48	1.36	1.9		12B	10.57D	15.83
0.3 - 0.35 0.53 - 0.8	9.1B 10.1H	110B	1.48E	3.8	2.36	8.14		15B	15.78D	54.27
0.53 - 0.58 0.8 - 1.1	9B 9.8H	160B	1.28E	3.75	1.99	7.78		14B	14.8D	55.57
0.8 - 0.85 1.1 - 1.35	8.7B 9.7H	200B	1.48E	3.87	1.66	6.56		14B	13.57D	46.86
1.35 - 1.6	8.7B 9.5H	230B	1.57E	4.25	1.75	6.44		14B	14.01D	46.00
1.6 - 1.7	8.6B 9.4H	260B	1.5E	4.42	1.78	6.26		14B	13.96D	44.71

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS %	Analysis Silt
0 - 0.17 4.1		1.08D		71B	0.061E					1.7
0 - 0.05 0.17 - 0.3 3.2		0.24D		18B	0.017E					1.4
0.17 - 0.22 0.3 - 0.53 23.5	1.8C	0.18D		25B	0.02E					1.4
0.3 - 0.35 0.53 - 0.8 34.5	9.7C	0.18D		33B	0.023E					5.5
0.53 - 0.58 0.8 - 1.1 34.5	5.6C	0.13D		32B	0.018E					3.2
0.8 - 0.85 1.1 - 1.35 32.8	11.8C	0.18D		33B	0.02E					5.9
1.35 - 1.6 33.6	12.4C	0.18D		33B	0.018E					6.9
1.6 - 1.7 32.3	9C	0.15D		31B	0.017E					4.9

Laboratory Analyses Completed for this profile

12C1 Calcium chloride extractable boron - manual colour
 15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
 15_NR_CMRE Exchangeable bases (Ca/Mg ratio) - Not recorded
 15_NR_NA Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
 15A1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_CEC Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_K Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment

for soluble

salts

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15A1_MG for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5, soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15J_BASES	Sum of Bases
15L1_a Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
19B_NR	Calcium Carbonate (CaCO ₃) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)