Project Name: Tambellup Borden land resources survey

Project Code: TBO Site ID: 0283 Observation ID: 1

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Rohan Marold Locality:

Date Desc.:12/03/97Elevation:135 metresMap Ref.:Rainfall:No Data

Northing/Long.: 6208488 AMG zone: 50 Runoff: No Data

Easting/Lat.: 622105 Datum: AGD84 Drainage: Moderately well drained

Geology

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

Landform

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:No DataRelief:No DataElem. Type:No DataSlope Category:No DataSlope:%Aspect:No Data

Surface Soil Condition Firm

Erosion (wind); (scald) (sheet) (rill) (mass) (gully)

(stbank) (tunnel)

Soil Classification

Australian Soil Classification:Mapping Unit:N/AMesotrophic Sodosolic Salic HydrosolPrincipal Profile Form:Dr4.23ASC Confidence:Great Soil Group:N/A

Confidence level not specified

Site Disturbance Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation

Surface Coarse Fragments

Profile Morphology

Ap 0 - 0.11 m Dark brown (7.5YR3/3-Moist); , 0-0% ; Clay loam, sandy; Single grain grade of structure; Sandy (grains

prominent) fabric; Dry; Firm consistence; Field pH 7.8 (pH meter); Abrupt change to -

A3 0.11 - 0.35 m Strong brown (7.5YR4/6-Moist); , 0-0%; Clay loam, sandy; Single grain grade of

structure; Sandy

(grains prominent) fabric; Dry; Firm consistence; Field pH 8.9 (pH meter); Clear change to

B2 0.35 - 0.85 m Yellowish red (5YR4/6-Moist); , 0-0%; Medium clay; Strong grade of structure, 5-10 mm,

Polyhedral;

Rough-ped fabric; Moderately moist; Strong consistence; Field pH 9.5 (pH meter);

Gradual change to -

C1 0.85 - 1.1 m Yellowish red (5YR5/8-Moist); , 0-0%; Light clay; Weak grade of structure, 5-10 mm,

Polyhedral;

Rough-ped fabric; Moderately moist; Very firm consistence; Field pH 9.1 (pH meter);

Gradual change to

-

C2 1.1 - 1.8 m Yellowish brown (10YR5/8-Moist); , 0-0%; Clay loam; Moderately moist; Firm consistence; Field pH 6.8

(pH meter);

Morphological Notes

Observation Notes

Site Notes

Alkaline red deep loamy duplex--red structured clay loam

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Laboratory Test Results:

Depth pH 1:5 EC Exchangeable Cations Exchangeable CEC ECEC ESP

m		dS/m	Ca	Mg	K	Na Cmol (+)/k	Acidity			%
0 - 0.1	5.9B	17B	7.91A	7.28	0.95	1.89	•		18.03D	
0 - 0.1	7H 5.9B	17B	7.91A	7.28	0.95	1.89			18.03D	
	7H									
0.1 - 0.35	8.8B 9.4H	160B	5.66E	14.55	1.1	12.53		31B	33.84D	40.42
0.1 - 0.35	8.8B 9.4H	160B	5.66E	14.55	1.1	12.53		31B	33.84D	40.42
0.35 - 0.65	8.8B 9.3H	220B	5.38E	15.14	1.14	16.12		35B	37.78D	46.06
0.35 - 0.65	8.8B 9.3H	220B	5.38E	15.14	1.14	16.12		35B	37.78D	46.06
0.65 - 0.95	8.3B 8.8H	190B	3.27E	10.76	0.47	16.45		26B	30.95D	63.27
0.65 - 0.95	8.3B	190B	3.27E	10.76	0.47	16.45		26B	30.95D	63.27
0.95 - 1.15	8.8H 7.7B	180B	2.7E	9.93	0.43	17.2		27B	30.26D	63.70
0.95 - 1.15	8.3H 7.7B	180B	2.7E	9.93	0.43	17.2		27B	30.26D	63.70
1.15 - 1.7	8.3H 4.5B	190B	1.91H	9.22	0.67	14.02	0.23J		25.82D	
1.15 - 1.7	5H 4.5B 5H	190B	1.91H	9.22	0.67	14.02	0.23J		25.82D	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Partio	cle Size An	alysis Silt
Depth m	CaCO3									
m 0 - 0.1		C Clay	Р	Р	N	K	Density		S FS	
m		C Clay %	Р	P %	N	K	Density		S FS	Silt
m 0 - 0.1 25.4 0 - 0.1 25.4	%	C Clay % 1.69D 1.69D	Р	P % 230B 230B	N	K	Density		S FS	12.5 12.5
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8	% 4C	c Clay % 1.69D 1.69D 0.42D	Р	P % 230B 230B 130B	N	K	Density		S FS	12.5 12.5 3.4
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8	% 4C 4C	C Clay % 1.69D 1.69D 0.42D 0.42D	Р	P % 230B 230B 130B 130B	N	K	Density		S FS	12.5 12.5 3.4 3.4
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65	% 4C	c Clay % 1.69D 1.69D 0.42D	Р	P % 230B 230B 130B	N	K	Density		S FS	12.5 12.5 3.4
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65 73.1 0.35 - 0.65	% 4C 4C	C Clay % 1.69D 1.69D 0.42D 0.42D	Р	P % 230B 230B 130B 130B	N	K	Density		S FS	12.5 12.5 3.4 3.4
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65 73.1 0.35 - 0.65 73.1 0.65 - 0.95	% 4C 4C 9C	C Clay % 1.69D 1.69D 0.42D 0.42D 0.28D	Р	9 % 230B 230B 130B 130B 120B	N	K	Density		S FS	12.5 12.5 3.4 3.4 4.3
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65 73.1 0.35 - 0.65 73.1 0.65 - 0.95 36.8 0.65 - 0.95	% 4C 4C 9C 9C	1.69D 1.69D 0.42D 0.28D 0.28D	Р	P % 230B 230B 130B 130B 120B	N	K	Density		S FS	12.5 12.5 3.4 3.4 4.3
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65 73.1 0.35 - 0.65 73.1 0.65 - 0.95 36.8 0.65 - 0.95 36.8 0.95 - 1.15	% 4C 4C 9C 9C <2C	1.69D 1.69D 0.42D 0.42D 0.28D 0.28D 0.16D	Р	P % 230B 230B 130B 130B 120B 120B 140B	N	K	Density		S FS	12.5 12.5 3.4 3.4 4.3 4.3 21.1
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65 73.1 0.35 - 0.65 73.1 0.65 - 0.95 36.8 0.95 - 1.15 25 0.95 - 1.15	% 4C 4C 9C 9C <2C <2C	C Clay % 1.69D 1.69D 0.42D 0.42D 0.28D 0.28D 0.16D 0.16D	Р	P % 230B 230B 130B 130B 120B 140B 140B	N	K	Density		S FS	12.5 12.5 3.4 3.4 4.3 4.3 21.1 21.1
m 0 - 0.1 25.4 0 - 0.1 25.4 0.1 - 0.35 62.8 0.1 - 0.35 62.8 0.35 - 0.65 73.1 0.35 - 0.65 73.1 0.65 - 0.95 36.8 0.65 - 0.95 36.8 0.95 - 1.15 25	% 4C 4C 9C 9C -2C -2C -2C	C Clay % 1.69D 1.69D 0.42D 0.42D 0.28D 0.28D 0.16D 0.16D 0.13D	Р	P % 230B 230B 130B 130B 120B 140B 140B 140B	N	K	Density		S FS	12.5 12.5 3.4 3.4 4.3 4.3 21.1 21.1 19.7

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - med 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

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15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_MG	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble 15A1_NA	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC 15C1_K soluble salts	soluble salts CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for 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
15E1_AL 15E1_CA salts	Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_K 15E1_MG 15E1_NA 15J_BASES	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts Sum of Bases
15L1_a Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a 15N1_b 19B_NR 3_NR 4_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations Calcium Carbonate (CaCO3) - Not recorded Electrical conductivity or soluble salts - Not recorded pH of soil - Not recorded
4B_AL_NR 4B1 6A1_UC	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded pH of 1:5 soil/0.01M calcium chloride extract - direct Organic carbon (%) - Uncorrected Walkley and Black method
9A3 9H1 P10_1m2m	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour Anion storage capacity 1000 to 2000u particle size analysis, (method not recorded)
P10_20_75 P10_75_106 P10_gt2m	20 to 75u particle size analysis, (method not recorded) 75 to 106u particle size analysis, (method not recorded) > 2mm particle size analysis, (method not recorded)
P10_NR_C P10_NR_Saa P10_NR_Z	Clay (%) - Not recorded Sand (%) - Not recorded arithmetic difference, auto generated Silt (%) - Not recorded
P10106_150 P10150_180 P10180_300 P10300_600	106 to 150u particle size analysis, (method not recorded) 150 to 180u particle size analysis, (method not recorded) 180 to 300u particle size analysis, (method not recorded) 300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)