APPENDIX III

LABORATORY DATA FOR SELECTED SOIL PROFILES

Site Descriptions

Site: T1 **Land Type:** RHGs

General Landscape Description:
Road cutting on midslope position on rolling hills (gneiss). Remnant native vegetation includes *Eucalyptus melliodora* (Yellow Box), *E. bridgesiana* (Apple Box) and *E. polyanthemos* (Red Box).

Soil Profile Morphology:

A_1 0-10 cm	Very dark greyish brown (10YR 3/2) organic sandy loam; moderate fine polyhedral structure; dry firm consistence; gradual change to:
A_2 10-30 cm	Yellowish brown (10YR 5/4) gritty light sandy clay loam, bleached (10YR 7/4, dry); weak coarse prismatic structure; dry firm to very firm consistence; slightly gravelly (quartz); clear change to:
B_2 30-55 cm	Dark yellowish brown (10YR 4/6) gritty light medium clay, mottled (30%, medium, 5YR 4/6); strong medium to fine prismatic structure; dry strong consistence; gravelly (quartz); gradual change to:
B_3/C 55-70 cm	Dark yellowish brown (10YR 4/6) gritty light medium clay, weak medium prismatic structure; firm consistence; gravelly (quartz); gradual change to:
C/R 70^+ cm	

Factual Key: Db2.41
ASC: Bleached-Mottled, Eutrophic, Brown CHROMOSOL

Site: T2 **Land Type**: PSy

General Landscape Description:
Road cutting on midslope position on gentle plateau (sedimentary). Overstorey native vegetation includes: *E. radiata* (Narrow Leaf Peppermint), *E. obliqua* (Messmate) and *E. mannifera* (Brittle Gum).

Soil Profile Morphology:

A_{11} 0-15 cm	Dark brown (7.5YR 3/2) organic loam fine sandy; moderate medium to fine polyhedral structure; dry weak to firm consistence; gravelly (15%; 6-60 mm diameter); clear change to:
A_{12} 15-35 cm	Brown (7.5YR 5/4) light fine sandy clay loam, not bleached (7.5YR 6/4, dry), mottled (15%, medium, 2.5YR 4/6); moderate medium polyhedral structure; dry very firm consistence; gravelly (20%; 6-60 mm diameter); clear change to:
B_2 35-70 cm	Red (2.5YR 4/6) light clay, strong medium to fine prismatic structure; dry very firm to strong consistence; gravelly (40%; 20-200 mm diameter, sandstone); gradual change to:
C/R 70^+ cm	

Factual Key: Gn4.14
ASC: Acidic, Mesotrophic, Red DERMOSOL

Site: T3 **Land Type**: LHUH

General Landscape Description:
Road cutting on midslope position on higher elevation undulating hills (granite). Overstorey native vegetation includes *E. radiata* (Narrow Leaf Peppermint), *E. globulus* (Blue Gum) and *E. obliqua* (Messmate).

Soil Profile Morphology:

A_1 0-15 cm — Very dark greyish brown (10YR 3/2) organic light sandy clay loam; moderate fine polyhedral/granular structure; dry weak consistence; gravelly (15%, 2-6 mm diameter, quartz); gradual change to:

A_2 15-35 cm — Brown (7.5YR 4/4) gritty sandy clay loam, bleached (7.5YR 7/4, dry) mottled (15%, medium, 5YR 4/6); weak coarse polyhedral structure; dry firm consistence; gravelly (15%, 2-6 mm diameter, quartz); clear change to:

B_2 35-100 cm — Red (2.5YR 4/5) gritty light medium clay; strong medium to fine prismatic structure; dry very firm to strong consistence; gravelly (10%, 2-6 mm diameter, quartz); diffuse change to:

B_3 100-120 cm — Red (2.5YR 4/6) gritty light clay, moderate medium prismatic structure; firm consistence; gravelly (20%, 2-6 mm diameter, quartz); gradual change to:

C/R
120^+ cm

Factual Key: Dr2.41
ASC: Bleached, Mesotrophic, Red KUROSOL

Site: T4 **Land Type**: MLG

General Landscape Description:
Road cutting on midslope position on rolling to steep mountains (leucocratic granite). Overstorey native vegetation includes *E. radiata* (Narrow-Leaf Peppermint), *E. globulus* (Blue Gum) and *E. obliqua* (Messmate).

Soil Profile Morphology:

A_1 0-10 cm — Very dark greyish brown (10YR 3/2) gritty, organic sandy clay loam; weak to moderate fine polyhedral/ blocky structure; dry firm to very firm consistence; slightly gravelly (3%, 2-6 mm diameter, quartz); clear change to:

A_2 10-20 cm — Dark reddish brown (5YR 3/4) gritty fine sandy loam, bleached (7.5YR 7/4, dry) mottled (10%, fine, 5YR 4/6); moderate fine prismatic structure; dry firm consistence; gravelly (8%, 2-6 mm diameter, quartz); clear change to:

B_{21} 20-40 cm — Yellowish red (5YR 4/5) gritty, silty light clay; strong coarse to medium to fine prismatic structure; dry very firm to strong consistence; gravelly (15%, 2-6 mm diameter, quartz); gradual/diffuse change to:

B_{22} 40-110 cm — Yellowish red (5YR 4/6) gritty, silty light clay, moderate coarse to medium prismatic to fine blocky structure; very firm consistence; gravelly (20%, 2-6 mm diameter, quartz); gradual change to:

C/R
110^+ cm

Factual Key: Gn4.11/Gn3.11
ASC: Bleached-Acidic, Mesotrophic, Red DERMOSOL

Site: T5 **Land Type**: MR

General Landscape Description:
Road cutting on midslope position on steep mountains (rhyolite/rhyodacite), easterly aspect. Overstorey native vegetation includes *E. radiata* (Narrow-Leaf Peppermint), *E. mannifera* (Brittle Gum) and *E. globulus* (Blue Gum).

Soil Profile Morphology:

A_1 0-20 cm — Yellowish red (5YR 4/6) organic sandy clay loam; moderate medium to fine polyhedral/blocky structure; dry firm to very firm consistence; gravelly (20%, 6-60 mm diameter, quartz); clear change to:

B_2 20-70 cm — Red (2.5YR 4/8), silty light clay; moderate to strong coarse to medium to fine prismatic structure; dry very firm consistence; gravelly (35%, 6-60 mm diameter, quartz); clear change to:

B_3 70-110 cm — Reddish yellow (7.5YR 6/8) gritty, silty light clay, moderate coarse to medium to fine prismatic structure; very firm consistence; gravelly (20%, 2-6 mm diameter, quartz); gradual change to:

C/R
110^+ cm

Factual Key: Gn4.11
ASC: Acidic, Mesotrophic, Red DERMOSOL

Site: T6 **Land Type**: MR

General Landscape Description:
Road cutting on midslope position on steep mountains (rhyolite/rhyodacite), westerly aspect. Overstorey native vegetation includes *E. dives* (Broad-Leaf Peppermint), *E. mannifera* (Brittle Gum), *E. globulus* (Blue Gum) and *E. goniocalyx* (Long-Leaf Box).

Soil Profile Morphology:

A_1/A_2 0-20 cm — Yellowish red (5YR 4/6, 5YR 6/4, dry) organic heavy sandy loam; weak to moderate medium to fine polyhedral/blocky structure; dry firm to very firm consistence; moderately gravelly (30%, 20-60 mm diameter, parent material); clear change to:

B_2 20-60 cm — Red (2.5YR 4/6), sandy clay; weak to moderate medium to fine prismatic structure; dry very firm to consistence; gravelly (40%, 20-60 mm diameter, quartz); clear change to:

C/R
60^+ cm

Factual Key: Gn4.11/Gn3.11
ASC: Acidic, Mesotrophic, Red DERMOSOL

Site: T7 **Land Type**: PG

General Landscape Description:

Road cutting on midslope position on undulating plateau (granite), north westerly aspect. Overstorey native vegetation includes *E. dives* (Broad-Leaf Peppermint) and *E. mannifera* (Brittle Gum).

Soil Profile Morphology:

A_1 0-10 cm	Very dark greyish brown (10YR 3/2) organic light fine sandy clay loam; moderate medium to fine polyhedral/ blocky structure; dry weak to very firm consistence; slightly gravelly (20%, 6-60 mm diameter, quartz); clear change to:
B_1 10-40 cm	Dark reddish brown (5YR 3/4), silty light clay; moderate to strong medium to fine prismatic structure; dry firm consistence; gravelly (35%, 6-60 mm diameter, quartz); clear change to:
B_2 40-110 cm	Reddish yellow (7.5YR 6/8) gritty, silty light clay, moderate coarse to medium to fine prismatic structure; very firm consistence; gravelly (20%, 2-6 mm diameter, quartz); gradual change to:
C/R 110^+ cm	

Factual Key: Gn4.11
ASC: Haplic, Mesotrophic, Red DERMOSOL

Site: T8 **Land Type**: MS

General Landscape Description:
Road cutting on upperslope/crest position on steep mountains (schistose metamorphics), westerly aspect. Overstorey native vegetation includes *E. radiata* (Narrow-Leaf Peppermint) and *E. mannifera* (Brittle Gum).

Soil Profile Morphology:

A_1 0-20 cm	Dark reddish brown (5YR 3/3) organic loam fine sandy; weak to moderate medium to fine polyhedral/ blocky structure; dry firm consistence; moderately gravelly (30%, 20-60 mm diameter, parent material); clear change to:
B_2 20-55 cm	Red (2.5YR 4/6), sandy clay; moderate medium to fine prismatic structure; dry very firm to consistence; gravelly (55%, 6-200 mm diameter, parent material); clear change to:
C/R 55^+ cm	

Factual Key: Um6.12
ASC: Acidic, Mesotrophic, Red DERMOSOL

Site: T9 **Land Type**: MG (PG)

General Landscape Description:
Road cutting on upperslope position on undulating subalpine mountain/plateau (granite), north easterly aspect. Overstorey native vegetation includes *E. pauciflora* (Snow Gum) and possibly *E. rubida* (Candlebark) and *E. stellulata* (Black Sallee).

Soil Profile Morphology:

A_{11} 0-15 cm	Black (10YR 2/1) organic loam; moderate fine subangular blocky structure; dry weak consistence; gravelly (12%, 2-20 mm diameter, quartz); clear to gradual change to:
A_{12} 15-30 cm	Black (10YR 2/1) organic loam; moderate to strong fine subangular blocky structure; dry weak consistence; gravelly (15%, 2-200 mm diameter, quartz and mica); clear change to:
B_2 30-60 cm	Dark brown organic sandy clay loam, weak to moderate fine subangular blocky structure; moist firm consistence; moderately gravelly (25%, 2-200 mm diameter, quartz and mica); gradual/clear change to:
C/R 60^+ cm	

Factual Key: Um6.14
ASC: Melacic, Dystrophic, Black DERMOSOL

Site: T10 **Land Type**: LHUG

General Landscape Description:
Road cutting on lower slope position on a gentle terrace component of low undulating hills (granite), westerly aspect. Overstorey native vegetation includes *E. radiata* (Narrow-Leaf Peppermint) and *E. teretcornis* (Forest Red Gum).

Soil Profile Morphology:

A_1 0-15 cm	Dark reddish brown (5YR 3/3) organic light fine sandy clay loam; weak coarse/massive polyhedral structure; dry firm consistence; slightly gravelly (2%, 2-6 mm diameter, washed quartz, sediments); clear change to:
B_{21} 15-30 cm	Dark red (2.5YR 3/6) fine sandy light clay; moderate medium prismatic to blocky structure; dry very firm to strong consistence; gravelly (5%, 2-6 mm diameter, quartz and sediments); gradual change to:
B_{22} 30-100 cm	Dark red (2.5YR 3/6) silty light clay, strong medium to fine prismatic to blocky structure; moist strong consistence; gravelly (10%, 2-200 mm diameter, quartz and mica); gradual/clear change to:
D 100^+ cm	Gravels

Factual Key: Dr2.11
ASC: Haplic, Mesotrophic, Red CHROMOSOL

Site: T11 **Land Type**: MS

General Landscape Description:
Road cutting on upper slope (spur) position on rolling to steep mountain (metamorphic rocks), northerly aspect. Overstorey native vegetation includes *E. globulus* (Blue Gum), *E. radiata* (Narrow-Leaf Peppermint) and *E. dives* (Broad-Leaf Peppermint).

Soil Profile Morphology:

A_1 0-10 cm — Dark reddish brown (5YR 3/4) organic sandy loam, mottled (5%, fine, 5YR 4/6); moderate medium to fine polyhedral/ blocky structure; dry firm consistence; slightly gravelly (5%, 2-6 mm diameter, quartz/ metamorphics); clear change to:

B_1 10-25 cm — Yellowish red (5YR 4/6), heavy sandy clay loam, mottled (10%, medium, 5YR 5/8); moderate coarse to medium prismatic structure; dry firm consistence; gravelly (12%, 2-60 mm diameter, quartz/ metamorphics); pH 6.2; clear change to:

B_2 25-55 cm — Yellowish red (5YR 5/8), heavy sandy clay loam, mottled (5%, fine, 5YR 4/6); light fine sandy clay, moderate coarse to medium to fine prismatic structure; very form to strong consistence; gravelly (20%, 2-6 mm diameter, quartz); pH 6.0; gradual change to:

C/R
55^+ cm

Factual Key: Gn4.11
ASC: Acidic, Mesotrophic, Red DERMOSOL

Site: T12 **Land Type**: MR

General Landscape Description:
Road cutting on crest slope (spur) on rolling to steep mountain (acid volcanics). Overstorey native vegetation includes *E. pauciflora* (Snow Gum) and *E. dalrympleana* (Mountain Gum).

Soil Profile Morphology:

A_1 0-15 cm — Dark reddish brown (5YR 3/2) organic loam fine sandy; moderate medium to fine polyhedral/blocky structure; dry firm consistence; slightly gravelly (10%, 6-20 mm diameter, parent material); gradual change to:

B_2 15-40 cm — Yellowish red (5YR 4/6), heavy fine sandy clay loam; weak to moderate medium to fine prismatic to granular structure; gravelly (15%, 2-60 mm diameter, parent material); gradual change to:

B_3/C 40-65 cm — Yellowish red (5YR 5/8), heavy sandy clay loam, mottled (5%, fine, 5YR 4/6); light fine sandy clay, moderate coarse to medium to fine prismatic structure; very firm to strong consistence; moderately gravelly (60%, 6-60 mm diameter, parent material); gradual change to:

C/R
65^+ cm

Factual Key: Gn4.11
ASC: Acidic, Dystrophic, Red DERMOSOL

Site: T13 **Land Type**: MSy

General Landscape Description:
Road cutting on crest slope (spur) on rolling to steep mountains (sedimentary). Overstorey native vegetation includes *E. dives* (Broad-Leaf Peppermint), *E. radiata* (Narrow-Leaf Peppermint) and *E. mannifera* (Brittle Gum).

Soil Profile Morphology:

A_1 0-10 cm	Dark reddish brown (5YR 3/4) organic fine sandy clay loam; moderate medium prismatic structure; dry firm to strong consistence; slightly gravelly (15%, 2-200 mm diameter, parent material); clear change to:
B_{21} 10-25 cm	Yellowish red (5YR 4/6), fine sandy clay; moderate medium to fine prismatic to granular structure; gravelly (30%, 20-60 mm diameter, parent material); clear/gradual change to:
B_{22} 25-50 cm	Yellowish red (5YR 4/6), heavy sandy clay loam; light fine sandy clay, moderate coarse to medium to fine prismatic structure; very firm to strong consistence; moderately gravelly (40%, 20-200 mm diameter, parent material); gradual change to:
C/R 50^+ cm	Rock

Factual Key: Gn4.11/GN3.11
ASC: Haplic, Mesotrophic, Red DERMOSOL

Site: T14 **Land Type**: LHUG

General Landscape Description:
Road cutting on lower slope position on undulating low hills (granite). Overstorey native vegetation includes *E. microcarpa* (Grey Box) and *E. goniocalyx* (Long-leaf Box).

Soil Profile Morphology:

A_1 0-10 cm	Dark greyish brown (10YR 4/2) gritty, organic light sandy clay loam; weak structure; dry very firm consistence; moderately gravelly (20%, 2-6 mm diameter, quartz); clear change to:
A_2 10-40 cm	Dark reddish brown (7.5YR 5/6) gritty light sandy clay loam, bleached (7.5YR 7/4, dry); weak structure; dry very firm consistence; moderately gravelly (35%, 2-6 mm diameter, quartz); gradual change to:
B_2 40-80 cm	Yellowish red (5YR 4/6-8) gritty, silty light clay; strong coarse to medium to fine prismatic structure; dry very firm to strong consistence; moderately gravelly (40%, 2-6 mm diameter, quartz); gradual change to:
C 80-120$^+$ cm	

Factual Key: Gn4.51
ASC: Acidic, Mesotrophic, Red DERMOSOL

Site: T15 **Land Type**: LHUS

General Landscape Description:
Road cutting on lower slope position on undulating low hills (metasedimentary). Overstorey native vegetation includes *E. macrorhyncha* (Stringybark), *E. microcarpa*, (Grey Box), *E. polyanthmus* (Red Box) and *E. blakelyi* (Blakely's Gum).

Soil Profile Morphology:

A_1 0-10 cm	Dark brown (10YR 3/4) gritty, organic loam fine sandy; moderate fine prismatic to granular structure; dry firm consistence; gravelly (10%, 6-20 mm diameter, parent material); clear change to:
A_2 10-35 cm	Yellowish red (5YR 5/6); light fine sandy clay loam, bleached (7.5YR 7/4, dry); massive/ weak coarse prismatic structure; dry very firm consistence; gravelly (15%, 6-60 mm diameter, parent material); clear change to:
B_2 35-65 cm	Red (2.5YR 4/6) gritty, silty light medium clay; strong medium to fine prismatic to blocky structure; gravelly (15%, 6-60 mm diameter, parent material); gradual change to bedrock.

Factual Key: Dr2.41
ASC: Bleached, Mesotrophic, Red CHROMOSOL

APPENDIX 3A CHEMICAL LABORATORY RESULTS

Map Unit	Site Number	Laboratory Number	Horizon	1:5 Soil Water Suspension			Total Soluble Salts	Oxidizable Org. Carbon %	Organic Matter %	Total Nitrogen %	Exchangeable Al+++ ug/g	Extractable Bases				Total of Extractable Bases	Calcium:Magnesium Ratio	Exchangeable Acidity meq/100g	Cation Exchange Capacity
				pH H2O	pH CaCl2	EC dS/m						Ca ++ meq/100g	Mg++ meq/100g	K+ meq/100g	Na+ meq/100g				
RHGs	T1	8504/98	A1	5.2	4.4	0.09	0.03	5.80	11.0	0.31	26	5.1	1.9	0.76	0.08	7.9	2.7	19.0	26.9
	T1	8505/98	A2	5.6	4.5	<0.05	0.02	1.10	2.1	<0.05	30	1.7	1	0.51	0.06	3.3	1.7	6.0	9.3
	T1	8506/98	B2	5.7	4.7	<0.05	0.02	0.81	1.6		66	3.5	5.4	0.65	0.15	9.7	0.7	9.8	19.5
PSy	T2	8507/98	A1	5.2	4.3	0.05	0.02	3.10	5.9	0.12	170	1.6	1.1	0.7	0.07	3.5	1.5	17.0	20.5
	T2	8508/98	A2	5.2	4.3	0.05	0.02	2.30	4.4	0.06	190	0.89	0.76	0.53	0.12	2.3	1.2	14.0	16.3
	T2	8509/98	B2	5.4	4.5	0.06	0.02	0.77	1.5		100	0.84	1.1	0.78	0.17	2.9	0.8	8.6	11.5
LHUH	T3	8510/98	A1	6.1	5.3	0.07	0.02	2.50	4.8	0.10	<10	4.4	1.2	0.66	0.11	6.4	3.7	8.3	14.7
	T3	8511/98	A2	5.8	4.8	<0.05	0.02	0.91	1.8	<0.05	26	1.4	0.67	0.69	<0.05	2.8	2.1	5.5	8.3
	T3	8512/98	B2	4.8	4.5	<0.05	0.02	0.36	0.7		11	2.8	1.4	1.2	0.06	5.5	2	7.3	12.8
	T3	8547/98	B3	5.1	4.8	0.08	0.03	0.33	0.7	<0.05	<10	2.5	1.5	1	0.30	5.3	1.7		
MLG	T4	8513/98	A11	5.4	4.6	<0.05	0.02	3.00	5.7	0.10	27	4.5	1.4	0.76	<0.05	6.8	3.3	12.0	18.8
	T4	8514/98	A12	5.6	4.6	<0.05	0.02	1.70	3.3	0.05	87	2.7	1.3	0.76	<0.05	4.8	2.1	11.0	15.8
	T4	8515/98	B21	5.1	4.2	0.06	0.02	1.20	2.3	<0.05	280	0.42	1.1	0.73	0.17	2.5	0.4	14.0	15.5
	T4	8516/98	B22	5.2	4.2	<0.05	0.02	0.68	1.3	<0.05	280	0.1	0.86	0.73	<0.05	1.8	0.2	9.9	11.7
MR	T5	8517/98	A1	5.1	4.2	0.07	0.02	2.60	5.0	0.10	220	0.57	0.74	1.3	0.07	2.7	0.8	15.0	17.7
	T5	8518/98	B2	5.2	4.4	<0.05	0.02	0.86	1.7	<0.05	180	<0.05	0.58	0.83	<0.05	1.5	0.1	10.0	11.5
	T5	8519/98	B3	5.4	4.5	<0.05	0.02	0.16	0.3	<0.05	68	<0.05	0.4	0.65	<0.05	1.2	0.2	5.6	6.8
MR	T6	8520/98	A	5.1	4.2	0.06	0.02	2.00	3.8	<0.05	200	0.44	0.85	0.62	0.11	2.1	0.6	12.0	13.1
	T6	8521/98	B	5.3	4.4	0.05	0.02	0.68	1.3	<0.05	180	0.35	1.9	0.89	0.14	3.3	0.2	8.9	12.2
PG	T7	8522/98	A1	5.6	4.7	<0.05	0.02	4.40	8.4	0.23	69	4.1	1.9	1	<0.05	7.1	2.2	18.0	25.1
	T7	8523/98	B1	5.7	4.6	<0.05	0.02	1.70	3.3	0.07	90	2.8	2.2	0.92	<0.05	6.0	1.3	13.0	18.0
	T7	8524/98	B2	5.5	4.4	<0.05	0.02	0.62	1.2	<0.05	180	1.1	1.5	1	<0.05	3.7	0.8	12.0	15.7
MS	T8	8525/98	A	5.3	4.3	<0.05	0.02	2.80	5.3	0.13	260	0.52	0.71	0.84	<0.05	2.2	0.8	21.0	22.3
	T8	8526/98	B	5.1	4.2	<0.05	0.02	1.40	2.7	0.06	260	2.4	1.6	0.2	0.25	4.5	1.5	16.0	20.5
MG(mps)	T9	8527/98	A1	5.1	4.4	<0.05	0.02	4.50	8.5	0.21	300	0.15	0.76	0.46	0.06	1.4	0.2	19.0	20.4
	T9	8528/98	A2	4.9	4.4	<0.05	0.02	5.30	10.0	0.23	290	0.18	0.08	0.21	0.05	0.5	2.2	23.0	23.5
	T9	8529/98	B	5.4	4.9	<0.05	0.02	2.60	5.0	0.08	140	0.09	<0.05	0.13	0.06	0.3	1.8	17.0	17.3
LHUG	T10	8530/98	A	6.3	5.5	<0.05	0.02	2.20	4.2	0.09	<10	0.23	<0.05	0.13	0.05	0.4	4.6	6.5	6.9
	T10	8532/98	B22	6.0	5.3	<0.05	0.02	0.39	0.8	<0.05	<10	4.2	3.1	0.49	<0.05	7.8	1.6	6.6	14.4
MS	T11	8533/98	A	6.0	5.1	0.05	0.02	3.20	6.1	0.10	13	4.2	1.2	0.86	<0.05	6.3	3.5	12.0	18.3
	T11	8534/98	B1	5.5	4.6	<0.05	0.02	1.80	3.4	<0.05	100	1.1	0.87	0.92	<0.05	2.9	1.3	11.0	13.9
	T11	8535/98	B2	5.4	4.4	<0.05	0.02	0.50	1.0	<0.05	160	0.39	1.1	0.78	<0.05	2.3	0.4	8.5	10.8
MR	T12	8536/98	A	5.0	4	<0.05	0.02	6.40	12.0	0.25	250	0.15	0.22	0.53	0.08	1.0	0.7	25.0	26.0
	T12	8537/98	B	5.4	4.4	<0.05	0.02	1.30	2.5	<0.05	270	<0.05	0.14	0.4	<0.05	0.2	0.3	13.0	13.2
MSy	T13	8538/98	A	5.1	4.2	<0.05	0.02	3.30	6.3	0.13	250	1.6	1.2	0.67	0.08	3.6	1.3	18.0	21.6
	T13	8539/98	B1	5.3	4.3	<0.05	0.02	1.80	3.4	0.07	240	0.75	1.5	0.75	0.10	4.6	0.5	15.0	19.6
	T13	8540/98	B2	5.5	4.3	<0.05	0.02	1.30	2.5	0.06	270	0.58	1.9	1.1	0.10	3.7	0.3	14.0	17.7
LHUG	T14	8541/98	A1	5.4	4.5	<0.05	0.02	3.00	5.7	0.12	73	1.9	0.72	0.45	<0.05	3.1	2.6	10.0	13.1
	T14	8542/98	A2	5.3	4.3	<0.05	0.02	0.80	1.6	<0.05	140	0.57	0.46	0.5	<0.05	1.5	1.2	6.8	8.3
	T14	8543/98	B	5.6	4.4	<0.05	0.02	0.54	1.1	<0.05	170	0.82	1	0.75	<0.05	2.6	0.8	7.4	10.0
LHUS	T15	8544/98	A1	5.2	4.3	0.05	0.02	3.70	7.0	0.25	71	2.1	0.72	0.77	<0.05	3.6	2.9	13.0	16.6
	T15	8545/98	A2	5.4	4.4	<0.05	0.02	1.00	1.9	<0.05	81	0.96	0.32	0.37	<0.05	1.7	3	6.3	8.0
	T15	8546/98	B	5.5	4.5	<0.05	0.02	0.51	1.0	<0.05	110	1	3.4	0.58	0.06	5.0	0.3	7.9	12.9

APPENDIX 3B PHYSICAL LABORATORY RESULTS

Map Unit	Site Number	Laboratory Number	Horizon	Horizon Depth cm	Particle Size Distribution						Emerson Class	Atterberg Limits*			Linear Shrinkage %	pF2.5	pF4.2
					Gravel > 2mm %	Coarse sand %	Fine Sand %	Silt %	Clay %	LAT		Liquid Limit %	Plastic Limit %	Plasticity Index %			
RHGs	T1	8504/98	A1	0-10		35.7	23.7	16.5	15.5	2.3	E7orE8					30.4	12
	T1	8505/98	A2	11232		38.2	28.2	16.5	17	0.7	E3(1)					20.1	5.9
	T1	8506/98	B2	30-55		22	13.9	7.5	53.5	1.5	E3(1)	55.1	23.3	31.8		32.2	20.3
PSy	T2	8507/98	A1	0-15		11.2	47	20	16	1.9	E7orE8					28.9	9.4
	T2	8508/98	A2	15-35		9.8	47.2	21	18.5	1.5	E7orE8					28.9	8.1
	T2	8509/98	B2	35-70		7.6	41.7	18	31.5	1.2	E5orE6	37.2	16.4	20.8		27.3	11.5
LHUH	T3	8510/98	A1	0-15		27.4	36.8	17.5	14	2	E7orE8					25.4	7.6
	T3	8511/98	A2	15-35		37	29.8	15	17.5	0.9	E7orE8					18.8	6.8
	T3	8512/98	B2	35-100		21.3	15.3	15	48	1.1	E5orE6	52.4	25.4	27.0		30.9	17.3
	T3	8547/98	B3	100-120		23.6	17.1	15	43.5	0.3	E5orE6					32	17.2
MLG	T4	8513/98	A11	0-10		34.4	24.2	16	20	1.9	E7orE8					23.3	9.1
	T4	8514/98	A12	44105		30.8	26	17	23	1.6	E5orE6					21.7	10
	T4	8515/98	B21	20-40		26.2	20.6	12.5	38	1.7	E5orE6	39.5	22.8	16.7		23.5	14
	T4	8516/98	B22	40-100		28.7	18.3	11.5	39.5	1.7	E5orE6	40.1	27.3	12.7		24.5	14.4
MR	T5	8517/98	A1	0-20		15.1	34.9	25	21.5	1.6	E7orE8					30.1	10.5
	T5	8518/98	B2	20-70		8.2	31.3	23.5	36.5	1.3	E3(1)	44.8	24.8	20.1		27.5	14.2
	T5	8519/98	B3	70-110		6	32.6	32.5	30	0.1	E3(1)	53.3	26.3	27.1		31.9	15.1
MR	T6	8520/98	A	0-20		32.9	31.6	14.5	17.5	1	E7orE8					19.1	7.3
	T6	8521/98	B	20-60		30.6	24.1	13	30	0.4	E5orE6	32.9	16.7	16.2		18.2	9.7
PG	T7	8522/98	A1	0-10		29.2	21	17	24	1.3	E7orE8					31.9	11.7
	T7	8523/98	B1	14885		23.3	20.3	14.5	38	1	E5orE6	40.4	27.2	13.2		24.9	13.4
	T7	8524/98	B2	40-110		20.6	17.9	12.5	46	0.6	43	43.4	27.4	15.6		27.8	13.9
MS	T8	8525/98	A	0-20		5.4	41.2	16.5	29	1.8	E2(1)					35.1	13
	T8	8526/98	B	20-55		5.2	42	15	33	0.8	E7orE8	38.5	26.1	12.4		28.6	12.4
MG(mps)	T9	8527/98	A1	0-15		33.4	30.9	10	15	3.1	E7orE8					30.2	10.7
	T9	8528/98	A2	15-30		31.4	28.2	10.5	18	3.6	E7orE8					35.2	12.8
	T9	8529/98	B	30-60		38.3	23.7	11.5	18	3.2	E2(1)					28.7	11.1
LHUG	T10	8530/98	A	0-15		35.3	29	15.5	15.5	0.7	E7orE8					18.7	7.6
	T10	8531/98	B21	15-30		35.3	29	15.5	15.5	0.7	E7orE8					18.7	7.6
	T10	8532/98	B22	30-100		17	15.8	12.5	53	0.5	E5orE6	54.5	29.3	25.2		28.4	18.6
MS	T11	8533/98	A	0-10		41.2	21.6	14.5	15.5	1.2	E7orE8					22.6	9.3
	T11	8534/98	B1	14885		35.5	21.5	13	27	0.9	E7orE8	34.0	23.1	10.4		22.1	10.7
	T11	8535/98	B2	25-50		28.8	20.8	12	37	0.6	E5orE6	43.7	26.3	17.5		24.2	14.1
MR	T12	8536/98	A	0-15		23.8	18.8	20	25	3.5	E7orE8					40	16.8
	T12	8537/98	B	15-40		24.3	20.7	20	32.5	0.9	E5orE6	37.9	23.9	13.9		26.8	12
MSy	T13	8538/98	A	0-10		11.9	25.9	32.5	23	1.8	E7orE8					36.2	11.2
	T13	8539/98	B1	45931		6.7	25.4	31.5	33	0.9	E7orE8	42.4	31.7	10.7		32.4	12.9
	T13	8540/98	B2	25-50		6.1	20.2	26.5	45.5	0.8	E7orE8	46.9	31.2	15.7		31.5	15.4
LHUG	T14	8541/98	A1	0-10		39.7	24.6	15.5	15	0.8	E7orE8					24.1	7.1
	T14	8542/98	A2	14885		31.1	25.4	20	22.5	0.4	E7orE8					23	9.1
	T14	8543/98	B	40-80		25.2	21	18	35.5	0.4	E5orE6	41.4	20.5	20.9		25.3	13.7
LHUS	T15	8544/98	A1	0-10		21.4	28.8	26.5	18	1.2	E7orE8					30.8	9.1
	T15	8545/98	A2			21.6	29.6	27.5	20	0.4	E2(1)					22.4	6.6
	T15	8546/98	B	35-65		11.5	16	19	54.5	0.4	E5orE6	44.9	27.7	17.2		27.2	16.3

* based on sample < 2mm (not < 425 um)

APPENDIX 3A CHEMICAL LABORATORY RESULTS

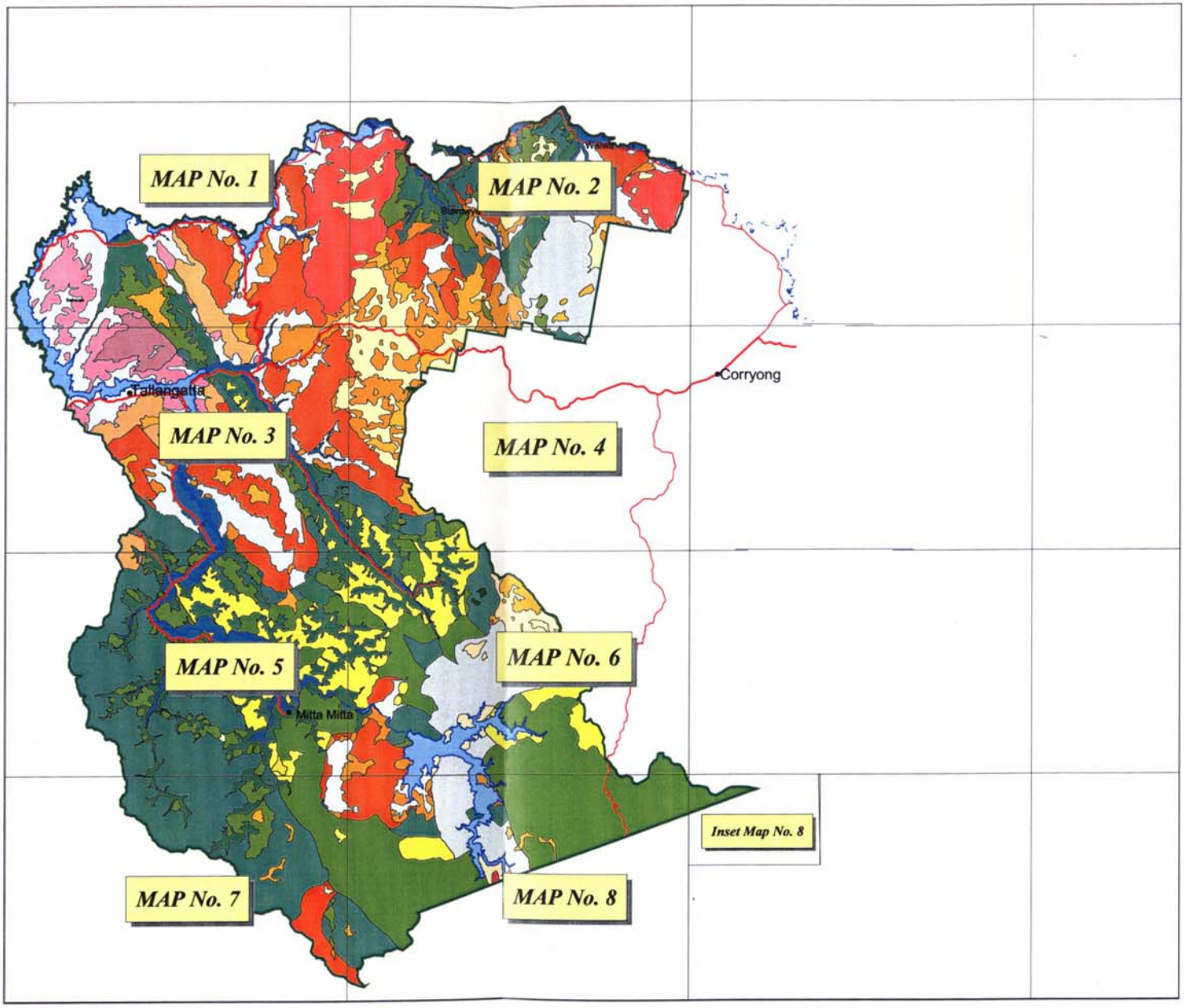
Map Unit	Site Number	Laboratory Number	Horizon	1:5 Soil Water Suspension			Total Soluble Salts	Oxidizable Org. Carbon %	Organic Matter %	Total Nitrogen %	Exchangeable Al+++ ug/g	Extractable Bases				Total of Extractable Bases	Calcium:Magnesium Ratio	Exchangeable Acidity meq/100g	Cation Exchange Capacity
				pH H2O	pH CaCl2	EC dS/m						Ca ++ meq/100g	Mg++ meq/100g	K+ meq/100g	Na+ meq/100g				
RHGs	T1	8504/98	A1	5.2	4.4	0.09	0.03	5.80	11.0	0.31	26	5.1	1.9	0.76	0.08	7.9	2.7	19.0	26.9
	T1	8505/98	A2	5.6	4.5	<0.05	0.02	1.10	2.1	<0.05	30	1.7	1	0.51	0.06	3.3	1.7	6.0	9.3
	T1	8506/98	B2	5.7	4.7	<0.05	0.02	0.81	1.6		66	3.5	5.4	0.65	0.15	9.7	0.7	9.8	19.5
PSy	T2	8507/98	A1	5.2	4.3	0.05	0.02	3.10	5.9	0.12	170	1.6	1.1	0.7	0.07	3.5	1.5	17.0	20.5
	T2	8508/98	A2	5.2	4.3	0.05	0.02	2.30	4.4	0.06	190	0.89	0.76	0.53	0.12	2.3	1.2	14.0	16.3
	T2	8509/98	B2	5.4	4.5	0.06	0.02	0.77	1.5		100	0.84	1.1	0.78	0.17	2.9	0.8	8.6	11.5
LHUH	T3	8510/98	A1	6.1	5.3	0.07	0.02	2.50	4.8	0.10	<10	4.4	1.2	0.66	0.11	6.4	3.7	8.3	14.7
	T3	8511/98	A2	5.8	4.8	<0.05	0.02	0.91	1.8	<0.05	26	1.4	0.67	0.69	<0.05	2.8	2.1	5.5	8.3
	T3	8512/98	B2	4.8	4.5	<0.05	0.02	0.36	0.7		11	2.8	1.4	1.2	0.06	5.5	2	7.3	12.8
	T3	8547/98	B3	5.1	4.8	0.08	0.03	0.33	0.7	<0.05	<10	2.5	1.5	1	0.30	5.3	1.7		
MLG	T4	8513/98	A11	5.4	4.6	<0.05	0.02	3.00	5.7	0.10	27	4.5	1.4	0.76	<0.05	6.8	3.3	12.0	18.8
	T4	8514/98	A12	5.6	4.6	<0.05	0.02	1.70	3.3	0.05	87	2.7	1.3	0.76	<0.05	4.8	2.1	11.0	15.8
	T4	8515/98	B21	5.1	4.2	0.06	0.02	1.20	2.3	<0.05	280	0.42	1.1	0.73	0.17	2.5	0.4	14.0	15.5
	T4	8516/98	B22	5.2	4.2	<0.05	0.02	0.68	1.3	<0.05	280	0.1	0.86	0.73	<0.05	1.8	0.2	9.9	11.7
MR	T5	8517/98	A1	5.1	4.2	0.07	0.02	2.60	5.0	0.10	220	0.57	0.74	1.3	0.07	2.7	0.8	15.0	17.7
	T5	8518/98	B2	5.2	4.4	<0.05	0.02	0.86	1.7	<0.05	180	<0.05	0.58	0.83	<0.05	1.5	0.1	10.0	11.5
	T5	8519/98	B3	5.4	4.5	<0.05	0.02	0.16	0.3	<0.05	68	<0.05	0.4	0.65	<0.05	1.2	0.2	5.6	6.8
MR	T6	8520/98	A	5.1	4.2	0.06	0.02	2.00	3.8	<0.05	200	0.44	0.85	0.62	0.11	2.1	0.6	12.0	13.1
	T6	8521/98	B	5.3	4.4	0.05	0.02	0.68	1.3	<0.05	180	0.35	1.9	0.89	0.14	3.3	0.2	8.9	12.2
PG	T7	8522/98	A1	5.6	4.7	<0.05	0.02	4.40	8.4	0.23	69	4.1	1.9	1	<0.05	7.1	2.2	18.0	25.1
	T7	8523/98	B1	5.7	4.6	<0.05	0.02	1.70	3.3	0.07	90	2.8	2.2	0.92	<0.05	6.0	1.3	13.0	18.0
	T7	8524/98	B2	5.5	4.4	<0.05	0.02	0.62	1.2	<0.05	180	1.1	1.5	1	<0.05	3.7	0.8	12.0	15.7
MS	T8	8525/98	A	5.3	4.3	<0.05	0.02	2.80	5.3	0.13	260	0.52	0.71	0.84	<0.05	2.2	0.8	21.0	22.3
	T8	8526/98	B	5.1	4.2	<0.05	0.02	1.40	2.7	0.06	260	2.4	1.6	0.2	0.25	4.5	1.5	16.0	20.5
MG(mps)	T9	8527/98	A1	5.1	4.4	<0.05	0.02	4.50	8.5	0.21	300	0.15	0.76	0.46	0.06	1.4	0.2	19.0	20.4
	T9	8528/98	A2	4.9	4.4	<0.05	0.02	5.30	10.0	0.23	290	0.18	0.08	0.21	0.05	0.5	2.2	23.0	23.5
	T9	8529/98	B	5.4	4.9	<0.05	0.02	2.60	5.0	0.08	140	0.09	<0.05	0.13	0.06	0.3	1.8	17.0	17.3
LHUG	T10	8530/98	A	6.3	5.5	<0.05	0.02	2.20	4.2	0.09	<10	0.23	<0.05	0.13	0.05	0.4	4.6	6.5	6.9
	T10	8532/98	B22	6.0	5.3	<0.05	0.02	0.39	0.8	<0.05	<10	4.2	3.1	0.49	<0.05	7.8	1.6	6.6	14.4
MS	T11	8533/98	A	6.0	5.1	0.05	0.02	3.20	6.1	0.10	13	4.2	1.2	0.86	<0.05	6.3	3.5	12.0	18.3
	T11	8534/98	B1	5.5	4.6	<0.05	0.02	1.80	3.4	<0.05	100	1.1	0.87	0.92	<0.05	2.9	1.3	11.0	13.9
	T11	8535/98	B2	5.4	4.4	<0.05	0.02	0.50	1.0	<0.05	160	0.39	1.1	0.78	<0.05	2.3	0.4	8.5	10.8
MR	T12	8536/98	A	5.0	4	<0.05	0.02	6.40	12.0	0.25	250	0.15	0.22	0.53	0.08	1.0	0.7	25.0	26.0
	T12	8537/98	B	5.4	4.4	<0.05	0.02	1.30	2.5	<0.05	270	<0.05	0.14	0.4	<0.05	0.2	0.3	13.0	13.2
MSy	T13	8538/98	A	5.1	4.2	<0.05	0.02	3.30	6.3	0.13	250	1.6	1.2	0.67	0.08	3.6	1.3	18.0	21.6
	T13	8539/98	B1	5.3	4.3	<0.05	0.02	1.80	3.4	0.07	240	0.75	1.5	0.75	0.10	4.6	0.5	15.0	19.6
	T13	8540/98	B2	5.5	4.3	<0.05	0.02	1.30	2.5	0.06	270	0.58	1.9	1.1	0.10	3.7	0.3	14.0	17.7
LHUG	T14	8541/98	A1	5.4	4.5	<0.05	0.02	3.00	5.7	0.12	73	1.9	0.72	0.45	<0.05	3.1	2.6	10.0	13.1
	T14	8542/98	A2	5.3	4.3	<0.05	0.02	0.80	1.6	<0.05	140	0.57	0.46	0.5	<0.05	1.5	1.2	6.8	8.3
	T14	8543/98	B	5.6	4.4	<0.05	0.02	0.54	1.1	<0.05	170	0.82	1	0.75	<0.05	2.6	0.8	7.4	10.0
LHUS	T15	8544/98	A1	5.2	4.3	0.05	0.02	3.70	7.0	0.25	71	2.1	0.72	0.77	<0.05	3.6	2.9	13.0	16.6
	T15	8545/98	A2	5.4	4.4	<0.05	0.02	1.00	1.9	<0.05	81	0.96	0.32	0.37	<0.05	1.7	3	6.3	8.0
	T15	8546/98	B	5.5	4.5	<0.05	0.02	0.51	1.0	<0.05	110	1	3.4	0.58	0.06	5.0	0.3	7.9	12.9

APPENDIX 3B PHYSICAL LABORATORY RESULTS

Map Unit	Site Number	Laboratory Number	Horizon	Horizon Depth cm	Particle Size Distribution						Emerson Class	Atterberg Limits*			Linear Shrinkage %	pF2.5	pF4.2
					Gravel > 2mm %	Coarse sand %	Fine Sand %	Silt %	Clay %	LAT		Liquid Limit %	Plastic Limit %	Plasticity Index %			
RHGs	T1	8504/98	A1	0-10		35.7	23.7	16.5	15.5	2.3	E7orE8					30.4	12
	T1	8505/98	A2	11232		38.2	28.2	16.5	17	0.7	E3(1)					20.1	5.9
	T1	8506/98	B2	30-55		22	13.9	7.5	53.5	1.5	E3(1)	55.1	23.3	31.8		32.2	20.3
PSy	T2	8507/98	A1	0-15		11.2	47	20	16	1.9	E7orE8					28.9	9.4
	T2	8508/98	A2	15-35		9.8	47.2	21	18.5	1.5	E7orE8					28.9	8.1
	T2	8509/98	B2	35-70		7.6	41.7	18	31.5	1.2	E5orE6	37.2	16.4	20.8		27.3	11.5
LHUH	T3	8510/98	A1	0-15		27.4	36.8	17.5	14	2	E7orE8					25.4	7.6
	T3	8511/98	A2	15-35		37	29.8	15	17.5	0.9	E7orE8					18.8	6.8
	T3	8512/98	B2	35-100		21.3	15.3	15	48	1.1	E5orE6	52.4	25.4	27.0		30.9	17.3
	T3	8547/98	B3	100-120		23.6	17.1	15	43.5	0.3	E5orE6					32	17.2
MLG	T4	8513/98	A11	0-10		34.4	24.2	16	20	1.9	E7orE8					23.3	9.1
	T4	8514/98	A12	44105		30.8	26	17	23	1.6	E5orE6					21.7	10
	T4	8515/98	B21	20-40		26.2	20.6	12.5	38	1.7	E5orE6	39.5	22.8	16.7		23.5	14
	T4	8516/98	B22	40-100		28.7	18.3	11.5	39.5	1.7	E5orE6	40.1	27.3	12.7		24.5	14.4
MR	T5	8517/98	A1	0-20		15.1	34.9	25	21.5	1.6	E7orE8					30.1	10.5
	T5	8518/98	B2	20-70		8.2	31.3	23.5	36.5	1.3	E3(1)	44.8	24.8	20.1		27.5	14.2
	T5	8519/98	B3	70-110		6	32.6	32.5	30	0.1	E3(1)	53.3	26.3	27.1		31.9	15.1
MR	T6	8520/98	A	0-20		32.9	31.6	14.5	17.5	1	E7orE8					19.1	7.3
	T6	8521/98	B	20-60		30.6	24.1	13	30	0.4	E5orE6	32.9	16.7	16.2		18.2	9.7
PG	T7	8522/98	A1	0-10		29.2	21	17	24	1.3	E7orE8					31.9	11.7
	T7	8523/98	B1	14885		23.3	20.3	14.5	38	1	E5orE6	40.4	27.2	13.2		24.9	13.4
	T7	8524/98	B2	40-110		20.6	17.9	12.5	46	0.6	43	43.4	27.4	15.6		27.8	13.9
MS	T8	8525/98	A	0-20		5.4	41.2	16.5	29	1.8	E2(1)					35.1	13
	T8	8526/98	B	20-55		5.2	42	15	33	0.8	E7orE8	38.5	26.1	12.4		28.6	12.4
MG(mps)	T9	8527/98	A1	0-15		33.4	30.9	10	15	3.1	E7orE8					30.2	10.7
	T9	8528/98	A2	15-30		31.4	28.2	10.5	18	3.6	E7orE8					35.2	12.8
	T9	8529/98	B	30-60		38.3	23.7	11.5	18	3.2	E2(1)					28.7	11.1
LHUG	T10	8530/98	A	0-15		35.3	29	15.5	15.5	0.7	E7orE8					18.7	7.6
	T10	8531/98	B21	15-30		35.3	29	15.5	15.5	0.7	E7orE8					18.7	7.6
	T10	8532/98	B22	30-100		17	15.8	12.5	53	0.5	E5orE6	54.5	29.3	25.2		28.4	18.6
MS	T11	8533/98	A	0-10		41.2	21.6	14.5	15.5	1.2	E7orE8					22.6	9.3
	T11	8534/98	B1	14885		35.5	21.5	13	27	0.9	E7orE8	34.0	23.1	10.4		22.1	10.7
	T11	8535/98	B2	25-50		28.8	20.8	12	37	0.6	E5orE6	43.7	26.3	17.5		24.2	14.1
MR	T12	8536/98	A	0-15		23.8	18.8	20	25	3.5	E7orE8					40	16.8
	T12	8537/98	B	15-40		24.3	20.7	20	32.5	0.9	E5orE6	37.9	23.9	13.9		26.8	12
MSy	T13	8538/98	A	0-10		11.9	25.9	32.5	23	1.8	E7orE8					36.2	11.2
	T13	8539/98	B1	45931		6.7	25.4	31.5	33	0.9	E7orE8	42.4	31.7	10.7		32.4	12.9
	T13	8540/98	B2	25-50		6.1	20.2	26.5	45.5	0.8	E7orE8	46.9	31.2	15.7		31.5	15.4
LHUG	T14	8541/98	A1	0-10		39.7	24.6	15.5	15	0.8	E7orE8					24.1	7.1
	T14	8542/98	A2	14885		31.1	25.4	20	22.5	0.4	E7orE8					23	9.1
	T14	8543/98	B	40-80		25.2	21	18	35.5	0.4	E5orE6	41.4	20.5	20.9		25.3	13.7
LHUS	T15	8544/98	A1	0-10		21.4	28.8	26.5	18	1.2	E7orE8					30.8	9.1
	T15	8545/98	A2			21.6	29.6	27.5	20	0.4	E2(1)					22.4	6.6
	T15	8546/98	B	35-65		11.5	16	19	54.5	0.4	E5orE6	44.9	27.7	17.2		27.2	16.3

* based on sample < 2mm (not < 425 um)

MAP INDEX TO LAND TYPE MAPS FOR THE SHIRE OF TOWONG - WESTERN PART



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OTHER INFORMATION
Base data is sourced from the NRE Corporate Geospatial Data Library.
Land Types have been derived from field observations and base geology and topographic data.

Map Produced 11/6/99 by:
Centre for Land Protection Research
Ph: (03) 54 304444

Physiographic Region	Sub Region	Map Symbol	Land Type	Rainfall (mm)	Geology	Soils	Native Vegetation
Flat to undulating plateaux in highest landscape positions		PG	Plateaux on granite and granodiorite, gneiss, rhyolite, schist and sedimentary rock.	750 >1400	Granite and granodiorite.	In the subalpine zone, organic soils and deep uniform loams to clay loams, well structured. At elevations below the subalpine, mostly deep well structured red gradational soils.	Small areas of subalpine woodland with *Eucalyptus pauciflora*. Mostly open forest II, III & IV: *E. dalrympleana*,*E. Dives*,*E. radiata*, and *E. Rubida*; *E. Delegatensis* at higher elevations.
		PGs			Gneiss.		
		PR			Rhyodacite/Rhyolite, quartz porphyry.		
		PS			Schist and spotted phyllite.		
		PSy			Sandstone, shales and siltstones.		
Dissected plateaux	Hills	HGDP	Hills on granite	800 - 1600	Granite and granodiorite.	Mostly red and yellow duplex soils and moderately to strongly structured gradationaln soils.	Mostly cleared for pine plantations; native vegetation probably predominantly as for mountains on granite (see below).
		HRDP	Hills on rhyolite and rhyodacite	800 - 1400	Rhyodacite and rhyolite, quartz porphyry.	Typically yellow brown to red strongly structured gradational soils with clay loam to light clay subsoils. Some less well structured uniform soils with loam to silty loam textures.	Predominantly open woodland and open forest III, with *E. dives* and *E. dalrympleana* on drier more exposed sites and *E. delegatensis* on wetter sites at higher elevations; *E. pauciflora* on cold sites and at highest elevations.
		HSDP	Hills on schist	800 - 1800	Schist and spotted phyllite.	Generally duplex or gradational soils, sometimes deep, with strongly structured subsoils.	Native vegetation now almost entirely cleared probably as for hills on schist with steep relatively even slopes (see below).
		HSyDP	Hills on sedimentary rock	750 - 1400	Sandstone, shale and siltstone.	Generally gradational soils with moderately to strongly structured light clay subsoils; some uniform soils.	As for hills on sedimentary rocks (see below).
	Low hills and undulating terrain	LHUH	Low hills and undulating terrain in high landscape Positions	750 - 1400	Granite (including leucocratic granite), granodiorite; small areas of schist and rhyolite/rhyodacite.	Slopes on colluvium or bedrock typically with red duplex or gradational soils with moderately to strongly structured subsoils. Alluvial areas mostly with one or more depositional layers and poorly developed soils.	Areas on granite predominantly cleared. Probably mostly open forest II, III with *Eucalyptus macrorhyncha* and *E. Goniocalyx* on drier slopes and with *E. dives*, *E. radiata* and *E. dalrympleana* on wetter slopes.
Mountains	Mountains with uneven (benched) slopes common Areas with coarse crystalline rocks	MG	Mountains on Granite	650 - 1800	Granite, granodiorite and diorite.	On drier slopes and ridges, mostly shallow uniform clayey sands to sandy loams. Also some red, brown and yellow duplex soils. In wetter areas, such as on southerly slopes, mostly deep, well structured, red gradational Soils.	Open forest I, II, III mostly with *Eucalyptus dives*, *E. macrorhyncha*, *E. goniocalyx* and *E. Polyanthemos* and heathy or grassy understorey on drier slopes. Wetter slopes with open forest III,IV with *E. Radiata*, *E. dalrympleana* and *E. Globulus*, some *E. Obliqua*.
		MGs	Mountains on gneiss	650 - 1000	Gneiss and gneissic pegmatite; minor Schist.	Mostly shallow, uniform clayey sands to sandy clay loams or red or yellow duplex soils. In more humid areas, moderate to deep, mostly well structured, red gradational soils.	
		MLG	Mountains on leucocratic granite	650 - 1000	Leucocratic granite.	Mostly shallow stony loamy coarse sands. More humid areas with deep, well structured red uniform or gradational soils; some well structured red duplex soils on gentle slopes.	Similar vegetation to mountains on granite and gneiss. Also extensive areas of open woodland I with *Eucalyptus blakelyi*, *E. Goniocalyx*, *E. macrorhyncha* and *Callitris endlicheri*.
	Mountains with steep, relatively even slopes, narrow crests an incised valleys ridge and ravin terrain	MR	Mountains on rhyolite and rhyodacite	800 - 1200	Rhyolite and rhyodacite, quartz porphyry and volcanic breccia.	Deep well structured gradational soils; some uniform loams to silty loams with weak to moderate structure.	<u>Drier slopes:</u> commonly with open forest II of *Eucalyptus dives*, *E. macrorhyncha* and *E. goniocalyx*. At higher elevations woodland or open forest II, III with *E. dives* and *E. dalrympleana; E. pauciflora* at highest elevations. <u>Wetter slopes:</u> with open forest II, III and IV commonly with *E. radiata*, *E. obliqua* and *E. globulus*; *E. delegatensis* and *E. dalrympleana* at higher elevations. Valleys in the south often with open forest III with *E. viminalis* and *E. Radiata*.
		MS	Mountains on schist	650 - 2000	Schist and spotted phyllite.	Humid slopes mostly with deep, strongly structured red gradational soils with clay loam to light clay subsoils. Drier slopes with shallow stony uniform loams to sandy clay loams; some shallow to moderately deep gradational soils of variable structure.	
		MSy	Mountains on sedimentary rock	900 - 1600	Mostly sandstone, shale and siltstone sometimes locally metamorphosed to slate, phyllite, hornfels and quartzite.	Stony uniform or gradational soils, mostly red with moderately to strongly structured clay subsoils. Drier slopes with shallow uniform stony loams to sandy clay loams. Shallow gradational soils often with structured clay loam or clay subsoils.	

Physiographic Region	Sub Region	Map Symbol	Land Type	Rainfall (mm)	Geology	Soils	Native Vegetation
Hills	Hills with uneven (benched) slopes common areas with coarse crystalline rocks.	HG	Hills on granite	650 - 1600	Granite and granodiorite.	Shallow stony sands and sandy loams and yellow duplex soils on drier slopes. More humid areas mostly with deep, strongly structured, red, uniform or gradational soils with sandy clay loam to light clay subsoils; some soils nonred and less well structured.	As for mountains on granite and gneiss.
		Hgs	Hills on gneiss	650 - 1000	Gneiss and gneissic pegmatite.	Shallow uniform sands and sandy loams or red or yellow duplex soils in drier areas. Red gradational soils in more humid localities.	Open forest I, II and III with *Eucalyptus dives*, *E. goniocalyx*, *E. macrorhyncha* and *E. radiata*.
	Hills with steep, relatively even slopes, narrow crests and incised valleys	HR	Hills on rhyolite and rhyodacite	800 - 1200	Rhyolite and rhyodacite, quartz porphyry and volcanic breccia.	As for hills on rhyolite that are within the dissected plateaux physiographic region.	Predominantly open woodland and forest II, III with *Eucalyptus dives*, *E. radiata* and *E. dalrympleana* on drier slopes; some *E. macrorhyncha*. Wetter slopes with *E. delegatensis*; *E. pauciflora!lin*; on exposed slopes and at highest elevations.
		HS	Hills on schist	650 - 1800	Schist and spotted phyllite.	Wetter slopes with red gradational soils with strongly structured subsoils; some red and yellow duplex soils. Drier slopes with shallow stony uniform loams to sandy clay loams, sometimes structured in the subsoil.	<u>Wetter slopes:</u> open forest II, III commonly with *Eucalyptus radiata* and *E. dalrympleana*. <u>Drier slopes:</u> open forest I, II commonly with *E. dives*, *E. macrorhyncha* and *E. polyanthemos* and with a shrubby or grassy understorey. Predominant native vegetation in the north of the study area is unclear because of extensive clearing.
		Hsy	Hills on sedimentary rock	750 - 1400	Mostly sandstone, shale and siltstone sometimes locally metamorphosed to slate, phyllite, hornfels and quartzite.	Red gradational soils with well structured clay subsoils in more humid areas. Shallow to moderately deep uniform loams to sandy clay loams, often stony, on drier slopes.	
Rolling Hills		RHGs	Rolling hills on gneiss	700 - 1000	Gneiss.	Mostly yellow duplex soils; some red duplex. Shallow uniform sands and sandy loams on very steep slopes.	Mostly cleared. Observations suggest native vegetation was predominantly an open woodland or forest I, II mostly with *Eucalyptus dives*, *E. goniocalyx* and *E. macrorhyncha*; also with *E. albens*, *E. polyanthemos* and *E. blakelyi*.
Low hills and undulating terrain	Granite, gneiss and derived colluvium; alluvium	LHUG	Low hills and undulating terrain on granite, gneiss and derived colluvium and alluvium.	650 - 1000	Gneiss, granite, granodiorite and derived silt, sand and gravel colluvium. Poorly sorted alluvial clay, silt, sand and gravel.	Uniform undifferentiated sands and loams on recent alluvium; mostly yellow duplex soils on older alluvial terraces and colluvial deposits. Yellow and red duplex soils on gentle to moderate slopes on bedrock. Shallow uniform sands and loams generally on steeper slopes.	Woodland or open forest II with *Eucalyptus camaldulensis* or *E. ovata* on recent alluvium. Open forest I, II with *E. macrorhyncha*, *E. goniocalyx*, *E. polyanthemos* and *E. blakelyi* on slopes.
	Schist, sedimentary rock and derived colluvium; alluvium	LHUS	Low hills and undulating terrain on schist, sedimentary rock and derived colluvium and alluvium	650 >1400	Schist, sandstone, shale, siltstone and derived silt sand and gravel colluvium; poorly sorted alluvial clay, silt, sand and gravel.	Uniform undifferentiated sands and loams on recent alluvium. Strongly structured red gradational soils and red and yellow duplex soils on gentle to moderate slopes on colluvium and bedrock. Steep slopes on bedrock generally with stony, shallow, uniform loams.	Lower rainfall areas: woodland and open forest II with *Eucalyptus camaldulensis* and *E. ovata* on recent alluvium; open forest I and II with *E.dives*, *E. macrorhyncha* and *E. goniocalyx* on older terraces and slopes. <u>Higher rainfall areas:</u> open forest II, III with *E. radiata* and *E. viminalis* on alluvium and *E. dives* and *E. radiata* on slopes.
Active floodplains		A	Active floodplains	650 - 1200	Recent sediments: gravel, sand, silt and clay.	Variable depending on source of alluvium and flood regime. Profiles with depositional layers of variable texture and little soil development common. Soils include uniformly textured silty to medium clays and uniform sandy loams to clay loams. Acidic gradational soils with sandy clay loam topsoils and light clay subsoils occur on lower alluvial terraces.	Few sites. Native vegetation now almost entirely cleared. Probably mostly woodland or open forest II with *E. camaldulensis* and *E. bridgesiana* in the north and with *E. viminalis* and *E. radiata* in the south.