forest industry research cooperatives

EUCALYPT BREEDING TRIALS ESTABLISHED 1997-2000

R.McConnochie

Report No. 37 December 2000

Confidential to the members of theEucalypt Breeding Cooperative

forest research

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Overall Trial Location Map

Summary of Trials By Year of Establishment

Trial Locations

- Otaua
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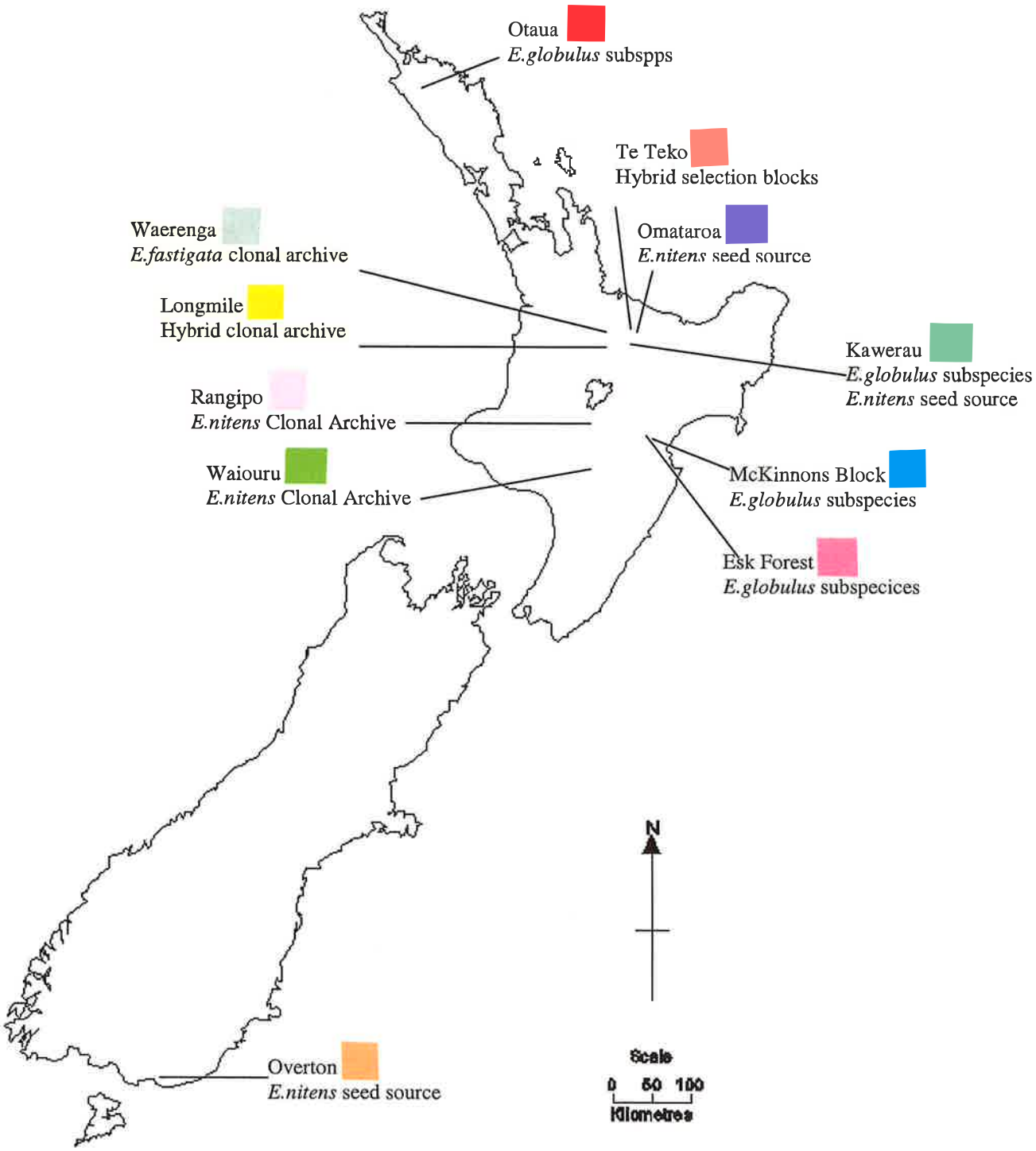
- Longmile
- Te Teko
- Omataroa
- Kawerau
- Rangipo
- Waiouru
- Esk Forest
- McKinnons Block
- Overton

Trial Information
- Location Map
- Trial Description sheet
- Trial Layout Map
- Tree Position Map
- Seedlot Information

EUCALYPT BREEDING TRIALS ESTABLISHED
1997 - 2000



EUCALYPT BREEDING TRIALS ESTABLISHED 1997-1999

1997

E.nitens **Seed Source Trial**

Expt No. FR304 Overton Block, Southland,
Southland Plantation Forests Ltd
8 seedlots, 64 tree blocks
6 replications

1998

E.nitens **Seed Source Trial**

Expt No.337/1 Hogg Rd, Bay of Plenty, GSL
7 seedlots, 64 tree blocks
and
3 sets of identified families, 3 trees /plot
7 replications

Expt No.337/2 Cpt 22 Omataroa Forest, CHH Forests Ltd
7 seedlots, 60 tree blocks
and
3 sets of identified families, 3 trees /plot
8 replications

E.nitens **C.V** **Grafted Breeding Archive**

Expt No.FR361/1 Rangipo, NZ Department of Corrections
60 clones, 1-9 ramets, randomised

E.fastigata **Grafted Breeding Archive**

Expt No.FR363 Waerenga, Rotorua, GSL
61 clones, 1-4 ramets, randomised

1999

***E.globulus* subspecies**	**Provenance Trial**
	Expt No.FR374/1 Esk Forest, Hawkes Bay, Pan Pac Forests Ltd 5 sets, 49 tree blocks, 7replications
	Expt No.FR374/2 McKinnon Forest, Hawkes Bay, Pan Pac Forests Ltd 5 sets, 49 tree blocks, 4 replications
	Expt No.FR374/3 Otaua, Northland, P.F.Olsen and Co. Ltd 5 sets, 49 tree blocks, 5 replications
	Expt No.FR374/4 Kawerau, Bay of Plenty, GSL 5 sets, 49 tree blocks, 8 replications
***E.nitens* C.V**	**Grafted Breeding Archive**
	Expt No.361/2 Waiouru, NZ Naval Communications Facility 123 clones, 3 replications

2000

***E.nitens* NSW**	**Grafted Breeding Archive**
	Expt No.361/2 Waiouru, NZ Naval Communications Facility 27 clones, 3 replications
E.grandis* x *E.nitens	**Seedling selection blocks**
	Expt No.FR385 Te Teko, Bay of Plenty, Fletcher Challenge Forests Ltd 64 tree blocks, full blocks or contiguous rows per cross
	Grafted archive
	Expt No.FR384 Longmile, Rotorua, Forest Research 20 clones, 1-5 ramets per clone randomised

OTAUA

P.F. Olsen &
Co Ltd

TRIAL DESCRIPTION SHEET

FOREST OWNER: P.F.Olsen and Co. Ltd

EXPT. No.: **FR 374/3**

FOREST: Otaua, Northland

CPT.:

CONTACT PERSON: Peter Bullen

PHONE: 09 404 0032

FAX: 09 4040455

CONTROLLING AGENCY: *Forest Research*

WORK PLAN #: 3017 **PROJECT:** 44/17 **FRI CORR. File:**

PURPOSE: Test the performance of provenances of *Eucalyptus globulus* and *subspps*

SITE DETAILS:

LATITUDE: 35° 30′ **LONGITITUDE:** 173°40′

ALTITUDE: 180m **ASPECT:** S **SLOPE:** 15°

GROUND PREPARATION: Spot mounding

SOIL TYPE:

PREVIOUS USE: Ex - Pasture

EXPERIMENTAL DETAILS:

SPECIES: *E.globulus and subspps* **STOCK:** Containerised **DATE PLANTED:** July1999

 # OF PLOTS: 25 **SIZE OF PLOTS:** 21m x 24.5m **SPACING:** 3.0m x 3.5m

TOTAL AREA: **1.29ha** **DEMARCATION:** Numbered posts

EXPERIMENTAL DESIGN:

Completely randomised blocks with non-contiguous plots

PROPOSED TREATMENT:
Weed free for first 2 years

PROPOSED YEARS OF ASSESSMENT: 2003 **PERMANANCY:** 20 years

ATTACHMENTS: Location map
Plot map
Tree position map
Subspp/provenance listing

forest research creative wood-based solutions	TITLE: **1999 *EUCALYPTUS GLOBULUS* PROVENANCE TRIAL** LOCATION: **WHAREPUNGA ROAD, OTAUA, NORTHLAND** FOREST OWNER: **PF OLSEN & CO** ESTABLISHMENT DATE: **JULY 1999** SPECIES: ***E. GLOBULUS*** PLANTED AREA: **1.3 HA** PLANTED STEMS: **1225** TRIAL NUMBER: **FR374/3** MAP NUMBER: **602** DRAWN BY: **DC MAIKA** DATE: **27 JULY 1999** CONTACT: **TARGETED SPECIES FOR GLOBAL OPPORTUNITIES** PHONE: **(07) 347-5899**

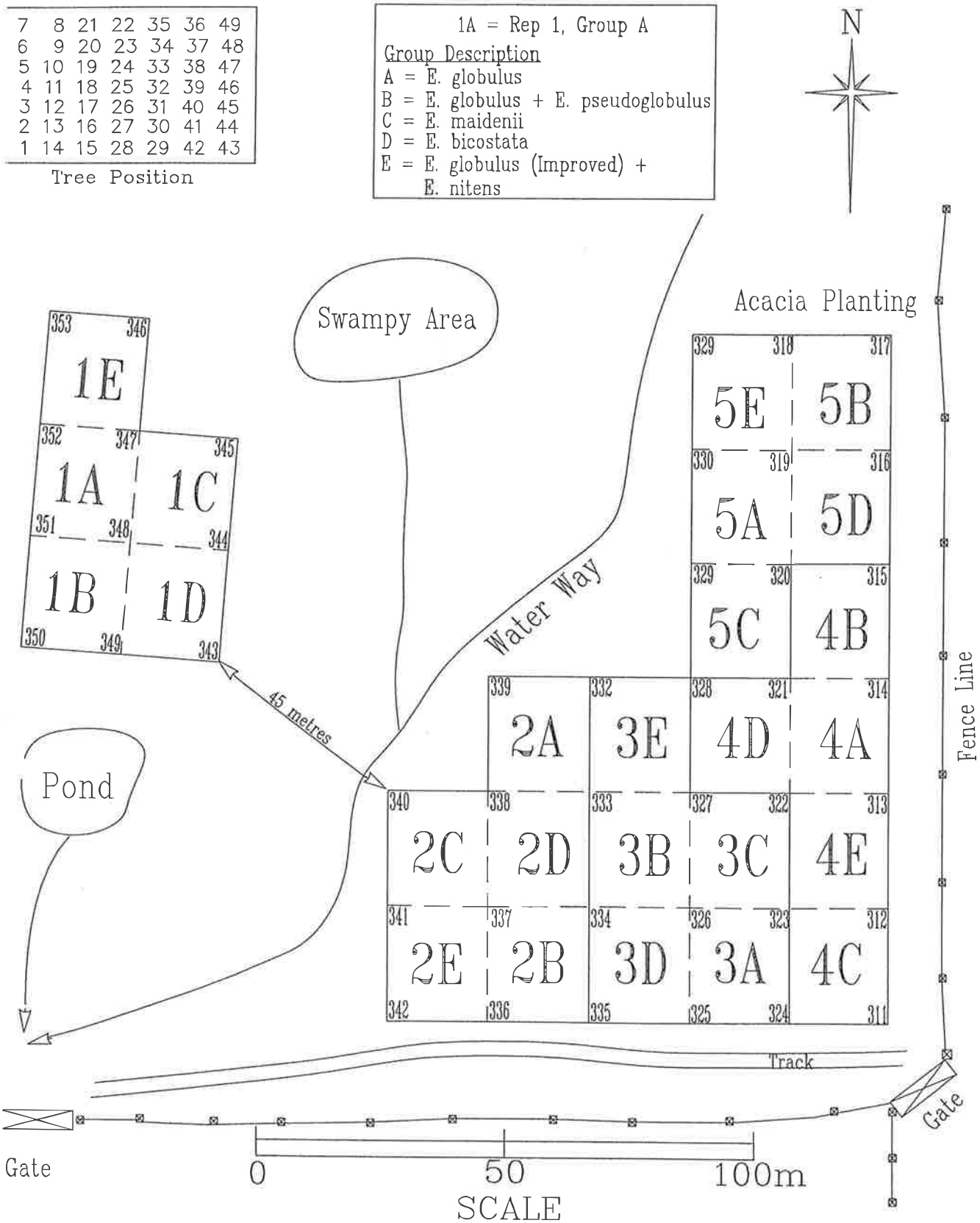
7	8	21	22	35	36	49
6	9	20	23	34	37	48
5	10	19	24	33	38	47
4	11	18	25	32	39	46
3	12	17	26	31	40	45
2	13	16	27	30	41	44
1	14	15	28	29	42	43

Tree Position

KEY

1A = Rep 1, Group A

Group Description
A = E. globulus
B = E. globulus + E. pseudoglobulus
C = E. maidenii
D = E. bicostata
E = E. globulus (Improved) + E. nitens



1999 EUCALYPTUS GLOBULUS
PROVENANCE TEST
FR374/3
Bay of Islands
Kerikeri
Russell
Paihia
Kaikohe
Moerewa
Kawakawa
Opua
Mangamuka
Mangamuka Bridge
Omahuta
Puketi
Umawera
Ranglahua
Walhou Valley
Walmate North
Te Ahuahu
Ohaeawai
Ngawha
Ngawha Springs
Te Iringa
Taheke
Punakitere
Tautoro
Matawala
Mataraua
Three Bridges
Awarua
Twin Bridges
Kaikou
Moerewa
Tauranga
Kawakawa
Waiomio
Maromaku
Towai
Kerikeri Inlet
Waitangi
Haruru
Pakaraka
Hupara
Whangae
Oromahoe
Kaeo
Rawene
Whirinaki
Waima
Omanaia
Moehau
Motukiore
Opanga
Ohuri
Kohukohu
Mangonui
Kaitaia
Ahipara
Awanui
Houhora
Pukenui
Kaeo
Paihia
Russell
Waitangi
Kerikeri
Kapiro
Walpapa
Pungaere
Puketi
Kaikohe
Ngawha Springs
Te Iringa
Punakitere
Tautoro
Matawala
Mataraua
Three Bridges
Twin Bridges
Awarua
Kaikou
Moerewa

1999 E.globulus Provenance Trial
Individual-tree-position at Otaua (Northland)
Replication 2 to 5

5E (corners: ??? / 318 / 330 / 319)

636	429	133	631	132	233	230
129	234	231	632	136	232	531
334	130	997	434	635	229	535
131	533	529	435	329	431	630
432	634	336	333	332	433	436
536	235	430	236	331	532	134
530	629	335	534	633	135	330

5B (corners: 318 / 317 / 319 / 316)

603	507	120	608	505	220	405
521	508	605	607	408	105	101
401	205	103	720	621	703	221
407	307	520	503	201	308	207
320	421	705	107	121	620	203
303	208	601	403	501	707	701
108	321	305	420	721	301	708

5A (corners: 330 / 319 / 329 / 320)

712	310	309	711	710	211	209
410	612	706	412	111	302	212
702	609	502	206	602	411	102
304	510	504	402	306	210	104
606	109	604	709	404	406	611
704	106	112	511	110	312	506
409	610	202	509	311	204	512

5D (corners: 319 / 316 / 320 / 315)

425	626	525	390	725	627	291
728	427	628	727	490	123	225
491	190	423	526	325	691	228
126	623	191	690	527	290	726
523	328	625	591	223	426	391
125	791	327	323	227	128	790
723	226	428	127	590	326	528

5C (corners: 329 / 320 / 328 / 321)

615	414	313	614	113	418	415
519	717	416	613	417	516	413
718	219	215	216	319	715	116
317	518	217	214	617	616	318
119	515	118	315	314	218	716
114	719	115	714	513	419	618
517	213	514	316	619	713	117

4B (corners: 320 / 315 / 321 / 314)

201	107	620	503	205	708	401
208	508	701	220	321	421	605
707	120	207	705	103	501	320
203	607	108	703	601	308	221
608	101	720	512	507	407	408
405	307	305	303	721	403	105
603	301	420	121	505	520	621

2A (corners: 339 / 332 / 338 / 333)

210	102	311	306	112	204	702
711	512	304	211	510	209	406
502	109	411	310	612	106	104
410	506	402	704	706	202	409
206	504	606	609	602	110	604
712	302	709	610	412	111	710
511	309	611	312	509	404	212

3E (corners: 332 / 328 / 333 / 327)

997	535	136	232	435	631	335
531	129	633	433	432	336	329
132	331	529	635	236	135	235
229	332	431	533	134	530	430
436	334	629	536	230	596	429
233	630	434	634	231	532	131
330	133	636	632	234	333	130

4D (corners: 328 / 321 / 327 / 322)

427	623	423	725	626	223	790
590	327	728	125	390	425	691
526	791	323	226	227	523	326
127	490	726	625	291	528	591
190	325	690	723	527	225	628
228	491	525	391	126	128	191
627	426	328	123	428	290	727

4A (corners: 321 / 314 / 322 / 313)

104	110	602	409	304	704	709
610	506	512	410	212	710	302
702	111	210	609	211	204	711
411	509	312	306	112	102	209
310	504	309	611	604	109	706
106	311	612	510	206	606	502
712	402	202	412	406	404	511

2C (corners: 340 / 338 / 341 / 337)

516	318	114	718	317	719	616
713	717	218	619	215	614	413
214	116	519	517	414	518	416
615	319	117	113	415	513	118
419	618	213	219	119	514	216
217	313	115	418	417	316	315
314	715	714	617	716	515	613

2D (corners: 338 / 333 / 337 / 334)

628	627	591	123	690	291	423
523	590	726	490	326	128	425
125	491	225	723	290	226	791
527	426	327	190	728	725	427
390	227	325	228	525	428	323
127	126	625	391	328	790	526
626	191	727	223	623	528	691

3B (corners: 333 / 327 / 334 / 326)

508	507	401	203	605	421	103
505	208	705	220	307	501	105
608	503	720	707	320	703	301
521	305	108	601	408	205	303
201	120	721	520	207	101	221
308	701	407	405	321	620	403
107	621	121	708	420	603	607

3C (corners: 327 / 322 / 326 / 323)

517	713	515	418	319	115	116
514	416	719	316	518	414	219
318	413	717	614	617	619	216
213	317	118	415	215	218	615
714	618	715	314	114	613	718
516	217	419	513	313	716	117
315	214	417	616	113	519	119

4E (corners: 322 / 313 / 323 / 312)

335	631	229	136	535	633	434
534	329	431	435	132	134	236
630	536	629	336	230	433	231
635	234	997	430	531	235	334
233	133	432	636	135	436	530
532	429	330	533	632	331	529
333	130	232	129	131	332	634

2E (corners: 341 / 337 / 342 / 336)

435	530	236	532	634	331	629
534	531	434	229	430	529	130
232	233	135	230	433	235	136
429	336	632	129	431	333	997
231	234	635	533	132	134	436
329	133	432	631	334	332	330
335	131	633	636	535	630	536

2B (corners: 337 / 334 / 336 / 335)

607	108	407	408	605	107	101
221	401	501	301	220	621	405
707	121	307	103	205	320	721
403	420	505	207	508	701	308
208	203	720	608	105	708	601
120	603	321	421	201	305	521
303	620	520	703	507	503	705

3D (corners: 334 / 326 / 335 / 325)

726	227	123	426	328	290	425
491	525	391	627	423	191	390
623	428	326	125	790	728	427
690	723	291	626	327	691	628
725	228	225	223	526	527	625
590	325	523	490	791	190	591
127	128	126	528	727	226	323

3A (corners: 326 / 323 / 325 / 324)

604	102	404	609	712	211	306
210	312	309	602	104	212	711
406	510	702	209	606	204	409
611	302	310	612	110	511	304
504	710	402	410	311	112	106
412	-8	411	109	512	509	202
709	610	706	502	206	111	506

4C (corners: 323 / 312 / 324 / 311)

215	514	518	219	317	214	417
719	218	116	415	713	117	714
517	315	418	615	119	414	513
316	318	213	416	118	519	515
618	313	217	413	216	614	113
616	114	613	115	619	718	716
617	314	717	419	516	319	715

1999 E.globulus Provenance Trial
Individual-tree-position Map at Otaua (Northland)
Replication 1

353	1E							346										
	433	636	333	331	332	630	535											
	429	132	430	234	531	232	997											
	330	634	632	631	432	336	231											
	329	635	133	235	134	130	129											
	131	233	236	532	533	335	334											
	135	436	434	229	530	529	431											
	136	534	230	435	629	633	536											
352	1A							347	1C							345		
	304	412	406	409	506	512	202		513	514	713	315	619	414	616			
	111	609	402	706	702	611	109		317	515	719	613	517	318	119			
	206	411	204	509	312	106	212		716	417	416	218	519	314	319			
	710	309	612	102	104	310	302		217	114	418	413	116	518	715			
	704	211	504	511	110	404	306		714	313	219	214	419	316	213			
	209	602	606	604	112	510	709		117	718	115	617	216	615	118			
	610	712	410	311	210	711	502		614	717	516	215	113	618	415			
351	1B							348	1D							344		
	320	503	101	720	305	508	105		628	591	225	291	491	690	226			
	103	207	703	521	401	221	405		325	423	326	725	391	723	525			
	708	203	501	507	220	108	420		228	790	727	126	427	626	328			
	403	721	608	701	308	520	201		191	728	390	627	125	190	623			
	605	107	121	705	321	208	607		590	523	625	223	490	127	726			
	421	603	707	301	620	407	205		526	128	327	290	123	426	528			
	303	120	505	307	408	601	621		425	691	428	791	527	323	227			
350								349								343		

1999 *E. globulus* subspecies provenance trial

Subspecies Groups	Field Code	Subspecies	Provenance
Group 1	2	*globulus*	Brunny Island (CSIRO N°18726)
	6		Clarke (NFP)
	4		Geeveston (CSIRO N°18723)
	9		East Coast North (NFP)
	10		East Coast Central (NFP)
	11		East Coast South Central (NFP)
	12		West Coast Central (NFP)
Group 2	3	*globulus*	King Island (NFP)
	5		Flinders (NFP)
	7		Otway Ranges (NFP)
	8		South Gippsland (NFP)
	1		Jeeralang North (CSIRO N° 16319)
	20	*pseudoglobulus*	Wiebens (CSIRO N°18111)
	21		Cann River (CSIRO N°19470)
Group 3	13	*maidenii*	Bolaro Mt. (CSIRO N°18728)
	14		Bondi S.F. (CSIRO N°19454)
	15		Belowra (CSIRO N°19456)
	16		Myrtle Mt. (CSIRO N°19458)
	17		Yambulla S.F. (CSIRO N°19284)
	18		Tantawanglo (CSIRO N°19460)
	19		Eden (AMCOR N°3499)
Group 4	22	*bicostata*	Canberra (AMCOR N°239)
	23		Burrinjuck (AMCOR N°242)
	24		Tumbarumba (AMCOR N°238)
	25		Wollemi (AMCOR N°243)
	26		Benalla (AMCOR N°244)
	27		Kiewa (AMCOR N°235)
	28		Mansfield (AMCOR N°245)
Group 5	29	*globulus*	Jeeralang (single mother tree)
	30	(improved)	Jeeralang (single mother tree)
	31		S. Geeveston (single mother tree)
	32		W.Coast Tasmania, Hently River (Single Mother Tree)
	33		Mix of seed 17 mothers from 8 provenances *
	34	*nitens*	*E. nitens* C. Victoria (Toorongo 16869)
	35		*E. nitens* NSW
	36		E.nitens Waikuku

* It includes genetic material from: Flinders Island, Seymour, Henly River, Leprena, King Island, Bruny Island, and Otways.

1999 *E. globulus* subspecies provenance trial

Composition of the bulked provenances of provided by North Eucalypt Technologies

GROUP No.	GEO-REGION (Bulked Provenance)	INDIVIDUAL PROVENANCES	No. families/ individual provenance	No. families in bulked provenance
3	**King Island**	Central King Island South King Island	14 1	**15**
5	**Flinders Island**	North. Flinders Island Central Flinders Island Central-North Flinders Island South Flinders Island	9 14 8 11	**42**
6	**Clarke Island**	Clarke Island N. Clarke Island West Clarke Island	3 10 28	**41**
7	**Otway Ranges**	Cannan Spur Cape Patton Jamieson Creek Lorne Otway State Forest Parker Spur South West Lavers Hill	21 18 7 27 41 56 5	**175**
8	**South Gippsland**	Bowden Road Jeeralang Madalya Road Port Franklin Hedley	5 3 6 4 7	**25**
9	**Tasmania East Coast North**	Pepper Hill Royal George St. Helens	10 10 10	**30**
10	**Tasmania East Coast Central**	Mayfield North Maria Island Triabunna	5 7 9	**21**
11	**Tasmania East Coast South Central**	Collinvale Hobart South Moogara	5 10 25	**40**
12	**Tasmania West Coast Central**	Badgers Creek Little Hently River Macquarie Harbour	7 10 4	**21**

WAERENGA

GSL Capital

TRIAL DESCRIPTION SHEET

FOREST OWNER: Tasman Forest Industries Ltd

EXPT. No.: **FR 363**

FOREST: Waerenga Block

CPT.:

CONTACT PERSON: Greg Osborne

PHONE: 021 790 439

FAX:

CONTROLLING AGENCY: FRI-Genetics and Tree Improvement

WORK PLAN #:

PROJECT: 44/7/3

FRI CORR. File:

PURPOSE: Clonal archive of E.fastigata

SITE DETAILS:

LATITUDE: 38° 38°01'03.3"

LONGITITUDE: 176° 18' 176°17'54.0"

ALTITUDE: 300m 368m

ASPECT: NE

SLOPE: >5°

GROUND PREPARATION: Ripping

SOIL TYPE: Pumice

PREVIOUS USE: Ex-farmland

EXPERIMENTAL DETAILS:

SPECIES: E.fastigata

STOCK: Grafted

DATE PLANTED: 4/98

 # OF PLOTS:

SIZE OF PLOTS:

SPACING: 8mx7m and 10mx7m

TOTAL AREA: 0.65ha

DEMARCATION: Numbered posts

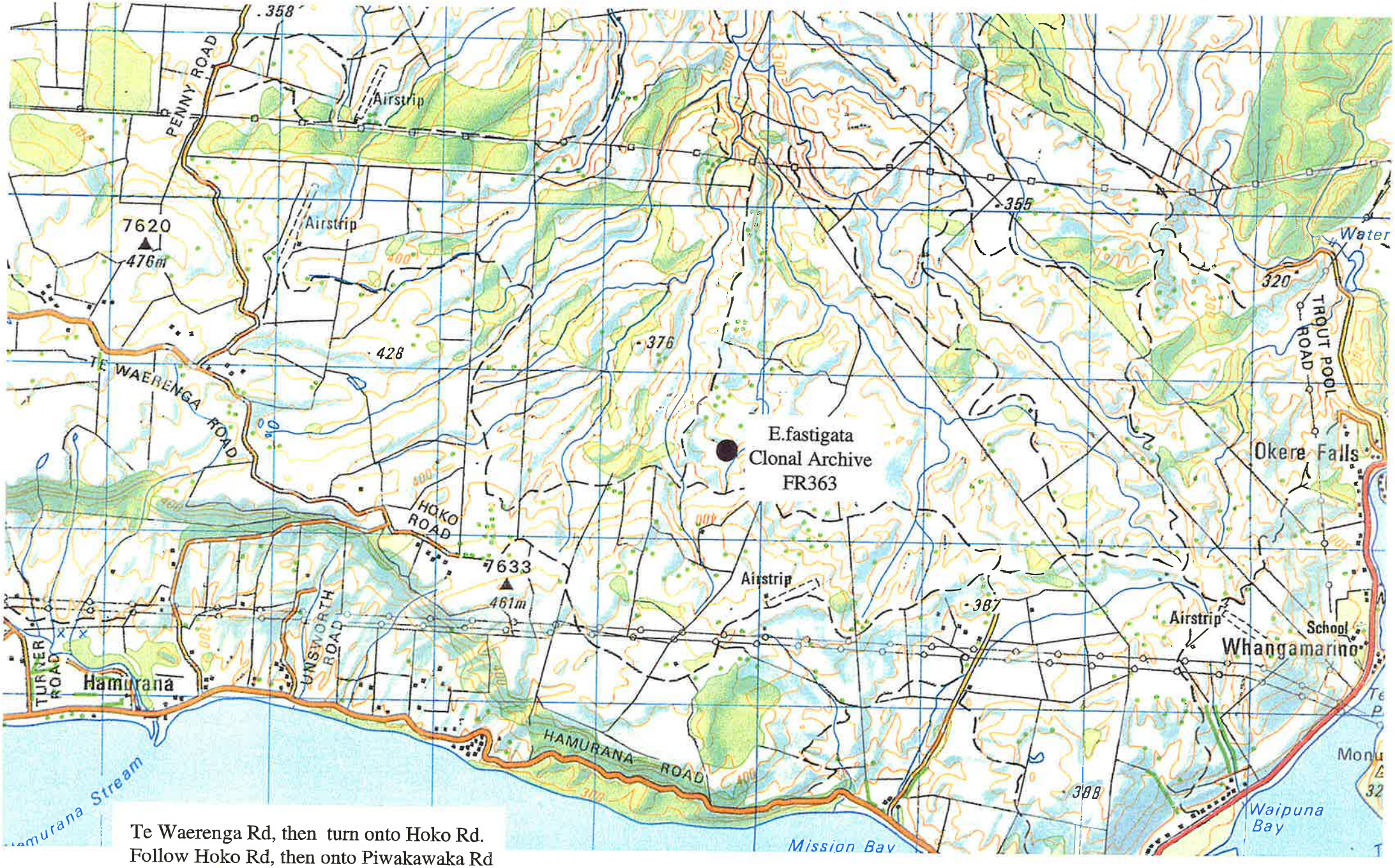
EXPERIMENTAL DESIGN:
Unreplicated COOL design

PROPOSED TREATMENT:
Weed free for first 2 years

PROPOSED YEARS OF ASSESSMENT:

PERMANANCY: 20 years

ATTACHMENTS:
Location map, Plot map, Clonal listing



Te Waerenga Rd, then turn onto Hoko Rd.
Follow Hoko Rd, then onto Piwakawaka Rd
Turn onto Matuhi Rd on right at top of rise

E.fastigata Clonal Archive

Waerenga Block, Tasman Forest Industries

Planted 1998

X	X	X	X												
75	X	32	X												
X	27	70	79												
NID	33	87	X								13	X	X	22	X
X	48	16	29		90	25	22	6	X	35	83	X	X	50	NID
NID	X			NID	3	50	63	93	X	42	18	X	X	78	X
74	X	32	40	74	78	68	61	X	X	X	X	61			
X	75	28	79	33	18	65	X	58	X	78	3				
X	33	80	29	43	37	X	22	61	35	63					
40	16	X	X	X	X	X	X	44	68						

Group 3

Group 2

Spacing
8m x 7m

N

Spacing
10m x 7m

76	X	39	10	X	23
X	55	X	X	71	X	X
94	45	72	64	X	45	X
X	72	X	X	94	X	56
77	X	X	X	39	X	84

Group 1

Matuhi Rd

Group 1 Selected individuals for high density, growth and no checks

Ortet Number	Family Code	Family ranking	Density Pith to Bark	Outerwood Density	Number checks	No. rings affected	Form	DBH	Index	Number grafts	OP seed gms	Orgin
891-10	4	15	471.67	424	4	1	8.33	284.11	8.62	1		Oberon
23	64	37	440.00	463	4	1	7.71	279.40	8.37	1	19.3	Yetholme
36	121	62	440.33	479	4	3	7.04	265.18	9.82	1		Barrington
39	2	6	439.00	516	0	0	7.22	258.53	10.37	2		Oberon
45	94	19	448.67	466	2	2	9.24	262.87	10.37	2		Waimana, NZ
51	104	3	449.00	489	4	2	7.97	304.31	11.37	2	2.1	Oakura, NZ
55	122	38	447.67	471	1	1	8.16	271.48	10.36	2		Barrington
56	9	13	450.00	527	0	0	7.75	281.30	10.68	1		Oberon
62	23	53	461.67	483	0	0	6.80	291.31	9.87	1		Rossi
64	72	47	456.67	492	2	2	7.00	327.53	10.77	2	0.4	Tallaganda
66	8	5	436.67	474	3	1	7.41	261.41	10.41	1		Oberon
69	146	33	500.00	571	0	0	8.21	304.52	10.65	1	16.9	Cambridge, NZ
71	103	2	431.00	489	0	0	7.54	346.64	12.04	3		Oakura, NZ
72	69	57	493.67	544	0	0	8.54	286.64	10.23	2		Tallaganda
76	5	10	472.00	515	1	1	8.68	273.10	10.92	4		Oberon
77	57	16	436.33	486	0	0	8.68	321.10	11.47	2		Charteris Bay,NZ
84	5	10	459.00	478	5	1	8.95	256.52	10.78	2		Oberon
94	104	3	458.67	509	1	1	8.41	301.41	11.42	2		Oakura, NZ
Average		23.83	455.11	493.11	1.72	0.89	7.98	287.63	10.47			

Group 2 Selected individuals for medium density, medium growth and less number of checks

Ortet Number	Family Code	Family ranking	Density Pith to Bark	Outerwood Density	Number checks	No. rings affected	Form	DBH	Index	Number grafts	OP seed gms	Origin
891-3	41	64	446.25	461	7	3	8.13	330.12	8.58	2	5.1	Robertson
6	2	6	458.33	504	15	4	9.13	287.12	9.13	1	0.9	Oberon
11	28	86	439.67	445	11	4	6.99	346.28	8.61	2		Bombala
13	54	68	498.67	516	0	0	8	283.41	8.32	2	4.4	Robertson
18	30	90	465.67	495	7	3	8.55	288.04	8.41	2		Bombala
22	117	4	404.00	430	1	1	9.05	292.12	9.15	3		Barrington
25	126	29	424.67	445	0	0	7.61	327.54	8.91	1	11.9	Natal
26	12	49	428.67	430	5	1	9.05	283.09	8.82	1		Rossi
35	125	1	396.75	434	0	0	8.04	333.18	12.03	2	0.9	Natal
37	15	28	427.00	447	1	1	8.04	264.18	10.22	2		Rossi
41	91	77	460.33	552	0	0	6.87	253.93	9.81	1		Tikitere, NZ
42	100	85	462.25	542	11	3	5.85	331.4	10.22	1		Oakura, NZ
44	99	12	456.33	524	9	3	8.24	301.87	10.89	1		Oakura, NZ
47	81	71	456.33	503	6	2	5.97	345.31	10.26	1	79.4	Robertson
50	125	1	422.33	484	3	1	8.97	270.31	11.44	3		Natal
54	115	18	460.33	492	9	3	7.16	306.48	10.66	2		Barrington
58	116	9	435.00	485	0	0	7.87	263.16	10.8	2		Stewarts Brook
59	114	51	453.50	483	15	1	5.87	303.16	10.14	1		Badja River
61	148	45	472.50	547	11	2	6.9	281.96	9.94	3		Cambridge, NZ
63	7	39	415.00	447	0	0	4.8	331.31	10.29	2		Oberon
65	109	41	436.00	455	0	0	8.25	263.79	9.89	1		lake Mangamahoe, NZ
68	19	30	446.33	513	16	2	8.21	309.52	10.45	4		Rossi
78	24	60	409.33	453	0	0	8.28	275.44	10.09	3		Rossi
83	58	21	415.33	455	0	0	8.1	276.87	10.64	2		Oberon
90	92	97	454.67	504	1	1	7.98	272.37	9.92	2	3.7	Tikitere, NZ
93	45	26	427.67	472	0	0	7.21	270.52	10.01	2		Robertson
Average		42.62	441.27	481.46	4.92	1.35	7.66	295.86	9.91			

Group 3 Selected individuals for lower density and no emphasis on form

Ortet Number	Family Code	Family ranking	Density Pith to Bark	Outerwood Density	Number checks	No. rings affected	Form	DBH	Index	Number grafts	OP seed	Origin
891-16	43	67	388.00	409	0	0	9.03	277.04	8.44	2		Robertson
24	39	54	433.00	433	18	4	7.93	288.6	8.56	1		Robertson
27	125	1	410.25	441	7	4	9.36	353.46	9.99	1	13.1	Natal
28	80	56	446.67	482	39	5	9.36	247.46	8.41	2		Badja Mtn
29	55	43	425.25	498	13	3	5.15	362.85	11	3	115.1	Marlborough Sounds, NZ
32	11	70	429.67	492	35	6	6.04	301.18	10.05	2		Oberon
33	123	88	446.75	507	20	8	6.04	369.18	10.52	3	30	Ngahinapouri, NZ
34	118	73	422.00	482	2	1	8.04	249.18	10.07	1		Barrington
40	37	36	436.25	498	12	5	6.07	325.37	10.41	3		Bombala
43	8	5	393.33	448	7	4	7.85	262.4	10.51	1		Oberon
48	22	59	389.75	414	6	3	5.97	304.31	10.12	1		Rossi
70	110	24	419.67	468	8	3	9.05	298.78	10.65	1		Oakura, NZ
74	117	4	399.67	449	7	2	7.21	284.34	10.84	2		Barrington
75	84	40	420.33	480	4	3	8.28	280.14	10.51	2		FRI, NZ
79	105	55	457.67	535	32	3	4.68	310.1	9.94	2	1.6	Oakura, NZ
80	53	78	425.67	498	7	3	6.27	310.04	10.11	2	26.2	FRI, NZ
87	16	50	415.67	445	11	3	7.98	296.37	10.34	2		Rossi
Average		47.24	421.15	469.35	13.41	3.53	7.31	301.22	10.03			

TRIAL DESCRIPTION SHEET

FOREST OWNER: Tasman Forest Industries Ltd

EXPT. No.: **FR 363**

FOREST: Waerenga Block

CPT.:

CONTACT PERSON: Greg Osborne

PHONE: 021 790 439

FAX:

CONTROLLING AGENCY: FRI-Genetics and Tree Improvement

WORK PLAN #:

PROJECT: 44/7/3

FRI CORR. File:

PURPOSE: Clonal archive of E.fastigata

SITE DETAILS:

LATITUDE: 38° 38°01'03.3"

LONGITITUDE: 176° 18' 176°17'54.0"

ALTITUDE: 300m 368m

ASPECT: NE

SLOPE: >5°

GROUND PREPARATION: Ripping

SOIL TYPE: Pumice

PREVIOUS USE: Ex-farmland

EXPERIMENTAL DETAILS:

SPECIES: E.fastigata

STOCK: Grafted

DATE PLANTED: 4/98

 # OF PLOTS:

SIZE OF PLOTS:

SPACING: 8mx7m and 10mx7m

TOTAL AREA: 0.65ha

DEMARCATION: Numbered posts

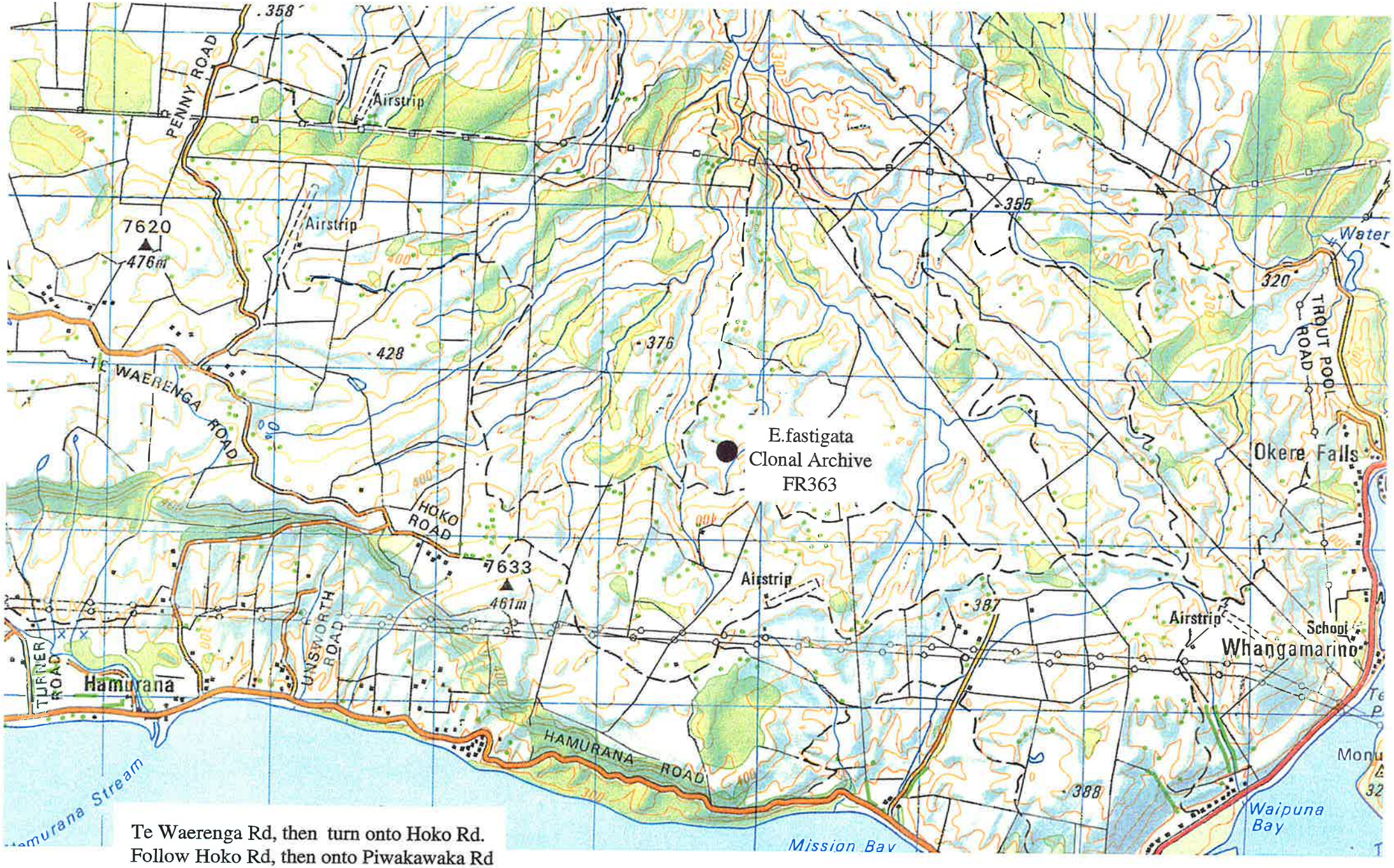
EXPERIMENTAL DESIGN:
Unreplicated COOL design

PROPOSED TREATMENT:
Weed free for first 2 years

PROPOSED YEARS OF ASSESSMENT:

PERMANANCY: 20 years

ATTACHMENTS:
Location map, Plot map, Clonal listing



Te Waerenga Rd, then turn onto Hoko Rd.
Follow Hoko Rd, then onto Piwakawaka Rd
Turn onto Matuhi Rd on right at top of rise

E.fastigata Clonal Archive

Waerenga Block, Tasman Forest Industries

Planted 1998

X	X	X	X												
75	X	32	X												
X	27	70	79												
NID	33	87	X								13	X	X	22	X
X	48	16	29		90	25	22	6	X	35	83	X	X	50	NID
NID	X			NID	3	50	63	93	X	42	18	X	X	78	X
74	X	32	40	74	78	68	61	X	X	X	X	61			
X	75	28	79	33	18	65	X	58	X	78	3				
X	33	80	29	43	37	X	22	61	35	63					
40	16	X	X	X	X	X	X	44	68						

Group 3

Group 2

Spacing
8m x 7m

N

Spacing
10m x 7m

76	X	39	10	X	23
X	55	X	X	71	X	X
94	45	72	64	X	45	X
X	72	X	X	94	X	56
77	X	X	X	39	X	84

Matuhi Rd

Group 1

Group 1 Selected individuals for high density, growth and no checks

Ortet Number	Family Code	Family ranking	Density Pith to Bark	Outerwood Density	Number checks	No. rings affected	Form	DBH	Index	Number grafts	OP seed gms	Orgin
891-10	4	15	471.67	424	4	1	8.33	284.11	8.62	1		Oberon
23	64	37	440.00	463	4	1	7.71	279.40	8.37	1	19.3	Yetholme
36	121	62	440.33	479	4	3	7.04	265.18	9.82	1		Barrington
39	2	6	439.00	516	0	0	7.22	258.53	10.37	2		Oberon
45	94	19	448.67	466	2	2	9.24	262.87	10.37	2		Waimana, NZ
51	104	3	449.00	489	4	2	7.97	304.31	11.37	2	2.1	Oakura, NZ
55	122	38	447.67	471	1	1	8.16	271.48	10.36	2		Barrington
56	9	13	450.00	527	0	0	7.75	281.30	10.68	1		Oberon
62	23	53	461.67	483	0	0	6.80	291.31	9.87	1		Rossi
64	72	47	456.67	492	2	2	7.00	327.53	10.77	2	0.4	Tallaganda
66	8	5	436.67	474	3	1	7.41	261.41	10.41	1		Oberon
69	146	33	500.00	571	0	0	8.21	304.52	10.65	1	16.9	Cambridge, NZ
71	103	2	431.00	489	0	0	7.54	346.64	12.04	3		Oakura, NZ
72	69	57	493.67	544	0	0	8.54	286.64	10.23	2		Tallaganda
76	5	10	472.00	515	1	1	8.68	273.10	10.92	4		Oberon
77	57	16	436.33	486	0	0	8.68	321.10	11.47	2		Charteris Bay,NZ
84	5	10	459.00	478	5	1	8.95	256.52	10.78	2		Oberon
94	104	3	458.67	509	1	1	8.41	301.41	11.42	2		Oakura, NZ
Average		23.83	455.11	493.11	1.72	0.89	7.98	287.63	10.47			

Group 2 Selected individuals for medium density, medium growth and less number of checks

Ortet Number	Family Code	Family ranking	Density Pith to Bark	Outerwood Density	Number checks	No. rings affected	Form	DBH	Index	Number grafts	OP seed gms	Origin
891-3	41	64	446.25	461	7	3	8.13	330.12	8.58	2	5.1	Robertson
6	2	6	458.33	504	15	4	9.13	287.12	9.13	1	0.9	Oberon
11	28	86	439.67	445	11	4	6.99	346.28	8.61	2		Bombala
13	54	68	498.67	516	0	0	8	283.41	8.32	2	4.4	Robertson
18	30	90	465.67	495	7	3	8.55	288.04	8.41	2		Bombala
22	117	4	404.00	430	1	1	9.05	292.12	9.15	3		Barrington
25	126	29	424.67	445	0	0	7.61	327.54	8.91	1	11.9	Natal
26	12	49	428.67	430	5	1	9.05	283.09	8.82	1		Rossi
35	125	1	396.75	434	0	0	8.04	333.18	12.03	2	0.9	Natal
37	15	28	427.00	447	1	1	8.04	264.18	10.22	2		Rossi
41	91	77	460.33	552	0	0	6.87	253.93	9.81	1		Tikitere, NZ
42	100	85	462.25	542	11	3	5.85	331.4	10.22	1		Oakura, NZ
44	99	12	456.33	524	9	3	8.24	301.87	10.89	1		Oakura, NZ
47	81	71	456.33	503	6	2	5.97	345.31	10.26	1	79.4	Robertson
50	125	1	422.33	484	3	1	8.97	270.31	11.44	3		Natal
54	115	18	460.33	492	9	3	7.16	306.48	10.66	2		Barrington
58	116	9	435.00	485	0	0	7.87	263.16	10.8	2		Stewarts Brook
59	114	51	453.50	483	15	1	5.87	303.16	10.14	1		Badja River
61	148	45	472.50	547	11	2	6.9	281.96	9.94	3		Cambridge, NZ
63	7	39	415.00	447	0	0	4.8	331.31	10.29	2		Oberon
65	109	41	436.00	455	0	0	8.25	263.79	9.89	1		lake Mangamahoe, NZ
68	19	30	446.33	513	16	2	8.21	309.52	10.45	4		Rossi
78	24	60	409.33	453	0	0	8.28	275.44	10.09	3		Rossi
83	58	21	415.33	455	0	0	8.1	276.87	10.64	2		Oberon
90	92	97	454.67	504	1	1	7.98	272.37	9.92	2	3.7	Tikitere, NZ
93	45	26	427.67	472	0	0	7.21	270.52	10.01	2		Robertson
Average		42.62	441.27	481.46	4.92	1.35	7.66	295.86	9.91			

Group 3 Selected individuals for lower density and no emphasis on form

Ortet Number	Family Code	Family ranking	Density Pith to Bark	Outerwood Density	Number checks	No. rings affected	Form	DBH	Index	Number grafts	OP seed	Origin
891-16	43	67	388.00	409	0	0	9.03	277.04	8.44	2		Robertson
24	39	54	433.00	433	18	4	7.93	288.6	8.56	1		Robertson
27	125	1	410.25	441	7	4	9.36	353.46	9.99	1	13.1	Natal
28	80	56	446.67	482	39	5	9.36	247.46	8.41	2		Badja Mtn
29	55	43	425.25	498	13	3	5.15	362.85	11	3	115.1	Marlborough Sounds, NZ
32	11	70	429.67	492	35	6	6.04	301.18	10.05	2		Oberon
33	123	88	446.75	507	20	8	6.04	369.18	10.52	3	30	Ngahinapouri, NZ
34	118	73	422.00	482	2	1	8.04	249.18	10.07	1		Barrington
40	37	36	436.25	498	12	5	6.07	325.37	10.41	3		Bombala
43	8	5	393.33	448	7	4	7.85	262.4	10.51	1		Oberon
48	22	59	389.75	414	6	3	5.97	304.31	10.12	1		Rossi
70	110	24	419.67	468	8	3	9.05	298.78	10.65	1		Oakura, NZ
74	117	4	399.67	449	7	2	7.21	284.34	10.84	2		Barrington
75	84	40	420.33	480	4	3	8.28	280.14	10.51	2		FRI, NZ
79	105	55	457.67	535	32	3	4.68	310.1	9.94	2	1.6	Oakura, NZ
80	53	78	425.67	498	7	3	6.27	310.04	10.11	2	26.2	FRI, NZ
87	16	50	415.67	445	11	3	7.98	296.37	10.34	2		Rossi
Average		47.24	421.15	469.35	13.41	3.53	7.31	301.22	10.03			

LONGMILE

Forest Research

TRIAL DESCRIPTION SHEET

FOREST OWNER: Forest Research

EXPT. No.: **FR 384**

FOREST: Longmile, Rotorua

CPT.: 15

CONTACT PERSON: R.McConnochie

PHONE: 07 3475 737

FAX: 07 3480 952

CONTROLLING AGENCY: FRI-Genetics and Tree Improvement

WORK PLAN #:

PROJECT:

FRI CORR. File: 44/15

PURPOSE: Clonal archive of *E.grandis* x *E.nitens*

SITE DETAILS:

LATITUDE: 38°09′

LONGITITUDE: 176°16′

ALTITUDE: 312m

ASPECT:

SLOPE: 0

GROUND PREPARATION: Ripped and cultivated

SOIL TYPE:

PREVIOUS USE: *E.nitens* clonal archive, grassed

EXPERIMENTAL DETAILS:

SPECIES: E.grandis x E.nitens

STOCK: grafts

DATE PLANTED: June 2000

 # OF PLOTS:

SIZE OF PLOTS:

SPACING: 8m x 8m

TOTAL AREA: **0.3 ha**

DEMARCATION: Numbered posts

EXPERIMENTAL DESIGN:

PROPOSED TREATMENT:
Weed free 1m around each graft for first 2 years , mow grassed area. Fertilise as required.

PROPOSED YEARS OF ASSESSMENT:

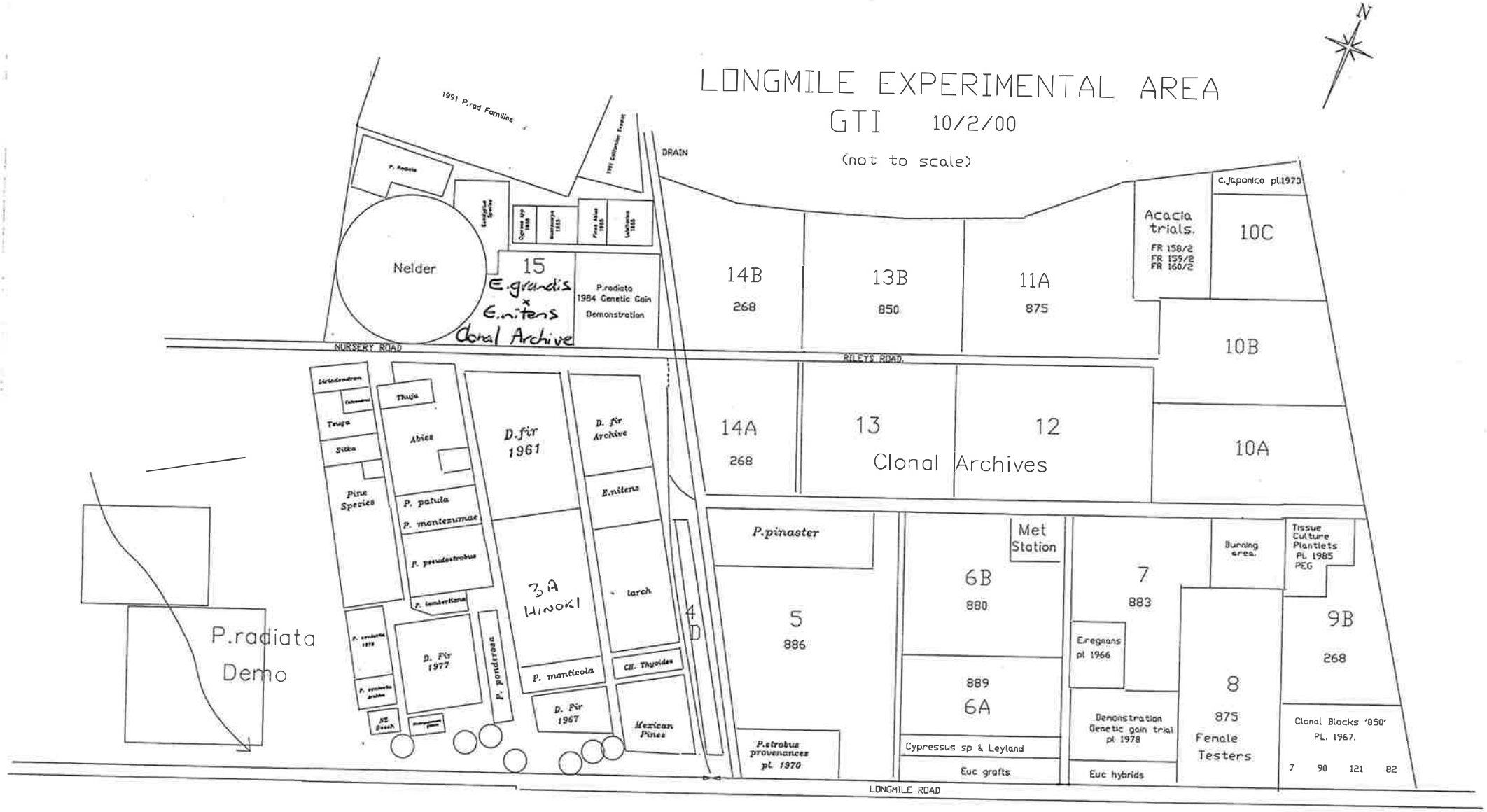
PERMANANCY: 20 years

ATTACHMENTS:

LONGMILE EXPERIMENTAL AREA

GTI 10/2/00

(not to scale)



N

E.GRANDIS X E.NITENS GRAFTS
899 - SERIES
PLANTED JUNE 2000
8m x 8m spacing

CUPRESSUS

P.RADIATA
NELDER

N231	N242	N223	N243	N242	N237	
N243	N224	G220	N223	N231	G233	N220
N236	N235	N236	N232	G221	N220	N244
N232	G244	G240	N234	G230	G235	G238
G239	G233	N221	G235	N232	N243	G241
G234	N240	G236	G230	N242	N235	N239
N224	N233	N241	N240	N235	G234	N244
N222	G221	N238	G243	G223	N238	N221
N233	G232	N231	N244	N236	G240	G232

To Nursery ← TRACK

N = E.nitens rootstock

G = E.grandis roostock

E.grandis x E.nitens grafts - Longmile Planted June 2000

Ortet No.		Cross	Field Code	Location	No. Ramets	
					E.nitens Rootstock	E.grandis Rootstock
899	231	grandis x nitens Vic	101	Te Teko	3	
899	234	grandis x nitens Vic	101	Te Teko	1	2
899	236	grandis x nitens Vic	101	Te Teko	3	1
899	224	grandis x nitens Vic	103	Tairua	2	
899	232	grandis x nitens Vic	103	Te Teko	3	2
899	241	grandis x nitens Vic	103	Te Teko	1	1
899	244	grandis x nitens Vic	103	Te Teko	3	1
899	221	grandis x nitens Vic	104	Tairua	2	2
899	242	grandis x nitens Vic	104	Te Teko	3	1
899	238	grandis x nitens Vic	109	Te Teko	2	1
899	235	grandis x nitens NSW	201	Te Teko	3	2
899	237	grandis x nitens NSW	203	Te Teko	1	
899	220	grandis x nitens NSW	204	Tairua	2	1
899	222	grandis x nitens NSW	204	Tairua	1	
899	230	grandis x nitens NSW	204	Te Teko		2
899	239	grandis x nitens NSW	204	Te Teko	1	1
899	240	grandis x nitens NSW	204	Te Teko	1	2
899	243	grandis x nitens NSW	204	Te Teko	3	1
899	223	grandis x nitens NSW	208	Tairua	2	1
899	233	grandis x nitens NSW	208	Te Teko	2	1

TE TEKO

Fletcher Challenge
Forests Ltd

TRIAL DESCRIPTION SHEET

FOREST OWNER: Fletcher Challenge Forests

EXPT. No.: FR 385

FOREST: Te Teko seed orchard

CPT.:

CONTACT PERSON: C.Te Riini

PHONE: 07 322 8511

FAX: 07 322 8451

CONTROLLING AGENCY: FRI-Genetics and Tree Improvement

WORK PLAN #: 3035 **PROJECT:** 25 **FRI CORR. File:** 44/15

PURPOSE: Selection blocks of *E.grandis* x *E.nitens*

SITE DETAILS:

LATITUDE: 38°30′ **LONGITITUDE:** 176°50′

ALTITUDE: 20m **ASPECT:** **SLOPE:** 0

GROUND PREPARATION: Ripped and mounded

SOIL TYPE:

PREVIOUS USE: *P.radiata* clonal hedges, grassed

EXPERIMENTAL DETAILS:

SPECIES: *E.grandis* x *E.nitens* **STOCK:** Containerised seedlings **DATE PLANTED:** August 2000

 # OF PLOTS: 13 **SIZE OF PLOTS:** 24m x 20m **SPACING:** 3m x 2.5m

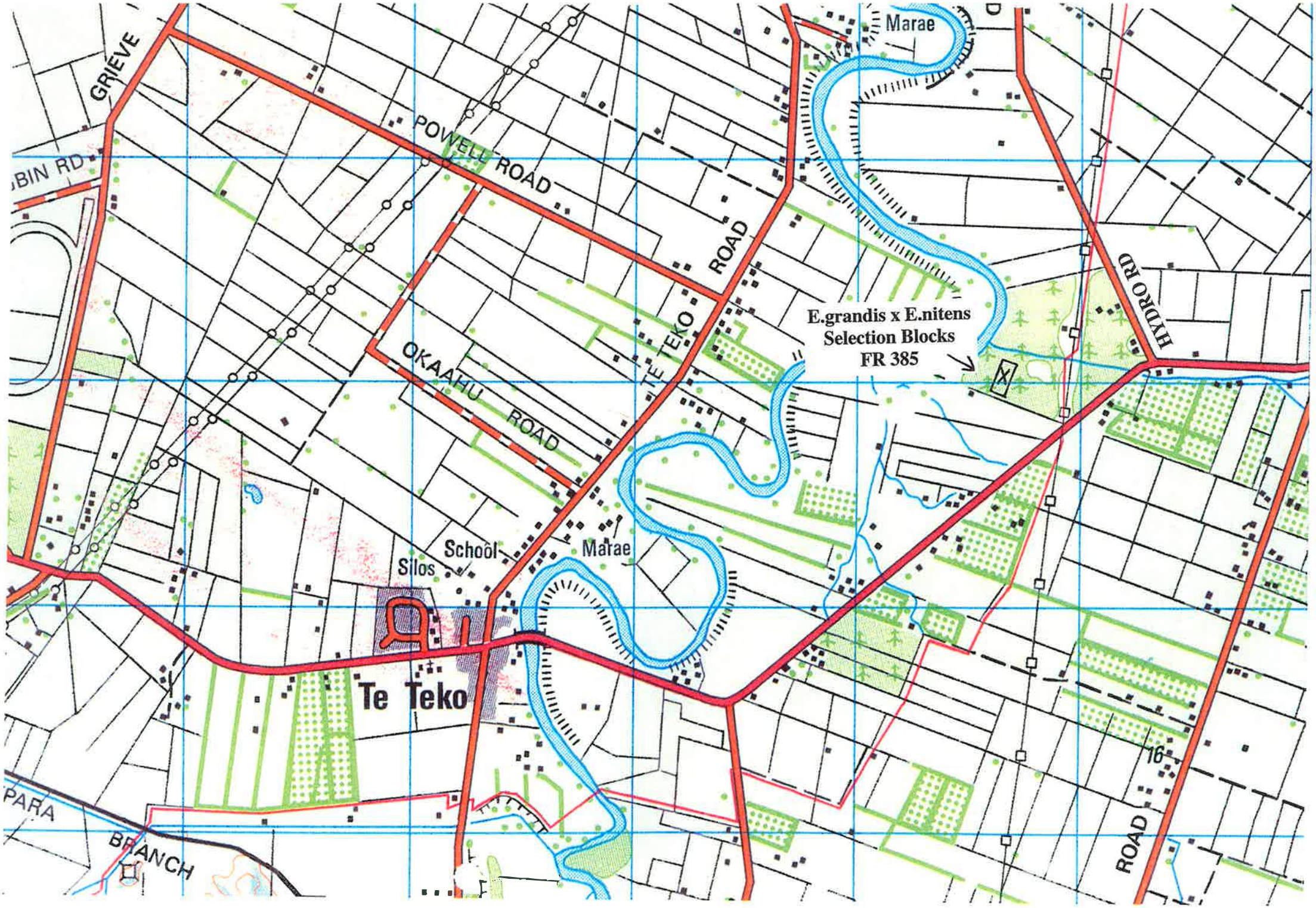
TOTAL AREA: 0.6 ha **DEMARCATION:** Numbered posts

EXPERIMENTAL DESIGN:
64 tree blocks, full blocks or contiguous rows of one cross.

PROPOSED TREATMENT:
Maintain weed free 1m around each seedling for first 2 years , mow grassed area. Fertilise as required. Control pests.

PROPOSED YEARS OF ASSESSMENT: **PERMANANCY:** 20 years

ATTACHMENTS:
1. Location map
2. Trial layout map
3. Background, lifting, planting
4. Details of crosses
5. Nursery counts and comments


GRIEVE
BIN RD
POWELL ROAD
TE TEKO ROAD
OKAAHU ROAD
Marae
E.grandis x E.nitens
Selection Blocks
FR 385
HYDRO RD
School
Silos
Marae
Te Teko
PARA
BRANCH
16
ROAD

E.grandis X E.nitens Selection Blocks

Te Teko Seed Orchard

FR 385

E.grandis x E.nitens Selection Blocks - Te Teko Planted August 2000
Spacing 3.0m x 2.5m

2 rows surround Code 501

2 rows E.nitens (planted 1999)

P201	103								P202	104								P203	121									P204				
	103									104									121													
	103									104									121													
	103									104									121													
	103									104									121													
	103									104									121													
	103									104									121													
	103									104									121													
P214	105								P213	108								P212	109									P211				
	105									108									109													
	105									108									109				106			x						
	105									108									204													
	105									107									204													
	105									107									204													
	111				116					107									204													
	117				118					120				119		115			204													
P215	401								P216	401								P217	401									P218				
	401									401									401													
	501									501									501													
P223	501									501									501													

2 rows E.nitens (planted 1999)

2 rows surround Code 501

P204	110								P205	122								P206	103A									P207
	110									122									103A									
	110									122									103A									
	110									122									103A									
	110									122									103A									
	110									122									103A									
	110									122									103A									
	112									122									103A									

P211	206								P210	105								P209	301									P208
	206									105									301									
	206									105									122									
	207									105									999									
	208	x								105									999									
	209									105									999									
	209									105									999									
	201				203					105									999									

P218	401								P219	401								P220	401									P221
	401									401									401									
	501									501									501									
	501									501									501									P222

OMATAROA

Carter Holt Harvey
Forests Ltd

TRIAL DESCRIPTION SHEET

FOREST OWNER: Carter Holt Harvey

EXPT. No.: **FR337/2**

FOREST: OMATAROA

CPT.: 22

CONTACT PERSON: Fred Burger

PHONE: (07) 349-0836

FAX:

CONTROLLING AGENCY: GTI

WORK PLAN #: **PROJECT:** **FRI CORR. File:**

PURPOSE:
1. To compare the performance of different seedlots of *Eucalyptus nitens*.
2. To test provenance and family variation in *Eucalyptus nitens* to *Septoria pulcherrima* infection.

LATITUDE: 38^0 05' **LONGITUDE:** 176^0 47'

ALTITUDE: 150-200 masl **ASPECT:** North West **SLOPE:** $0\text{-}15^0$

GROUND PREPARATION: Windrowed.

SOIL TYPE:

PREVIOUS USE: Commercial Forestry

EXPERIMENTAL DETAILS

SPECIES: *Eucalyptus nitens.* **STOCK:** Root trainer **DATE PLANTED:** 24/11/97.

 # OF PLOTS: 82 **SIZE OF PLOTS:** 18 m x 35 m **SPACING:** 3.4 m x 2.8 m

TOTAL AREA: **5.1 Hectares** **DEMARCATION:** Numbered posts.

EXPERIMENTAL DESIGN: 8 replications, 10 sets, 60 tree plots

Sets A, B, C, D, E, F, G are block plantings, H, I, J are single tree plots.

PROPOSED TREATMENT: **Keep weed free for two years.**

PROPOSED YEARS OF ASSESSMENT: 2001 **PERMANENCY:** 10 years.

ATTACHMENTS:
Trial map
Location Map
Single Tree Plot Data
Seedlot Information

OMATAROA

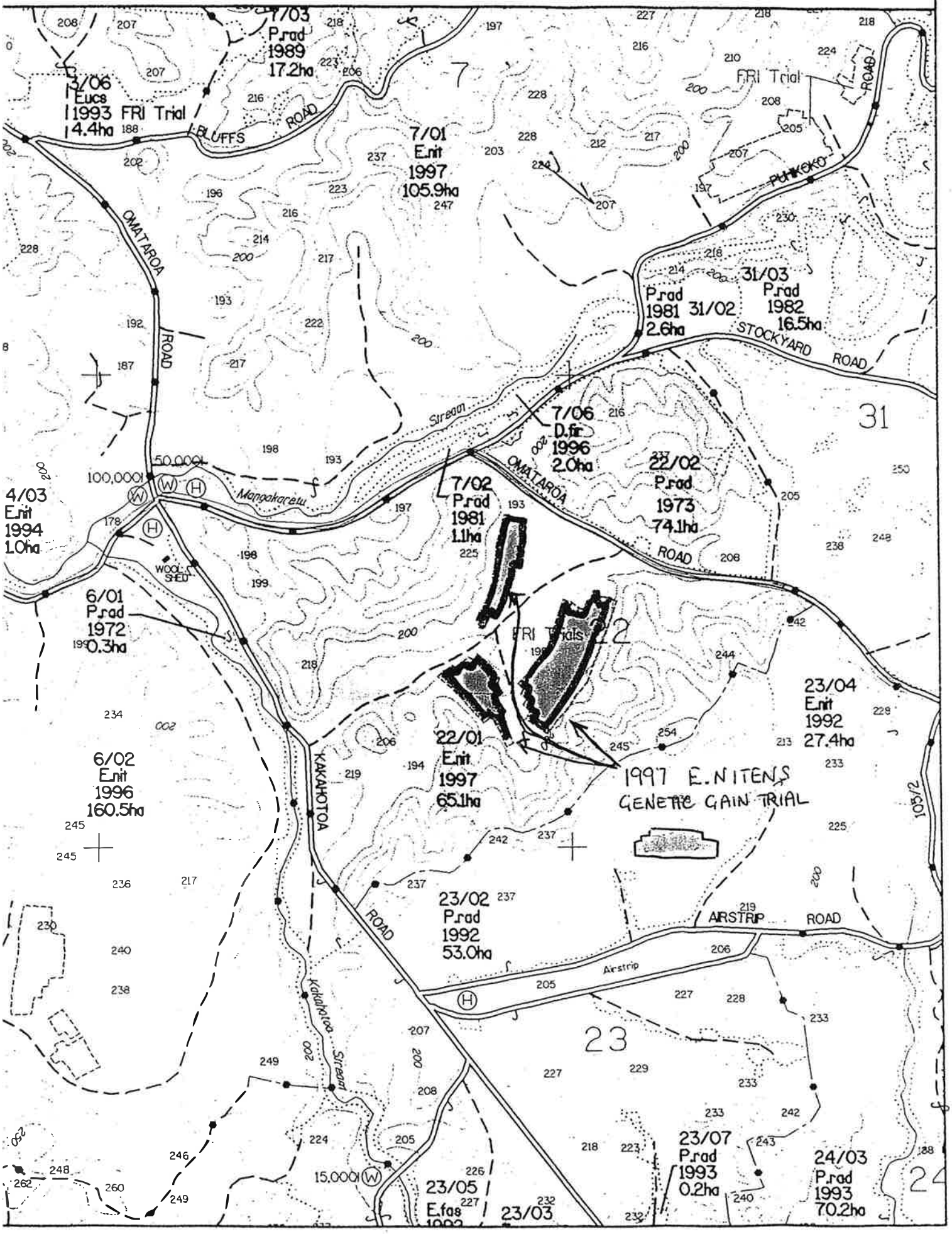
Scale 1:10000

Contour Interval 10m

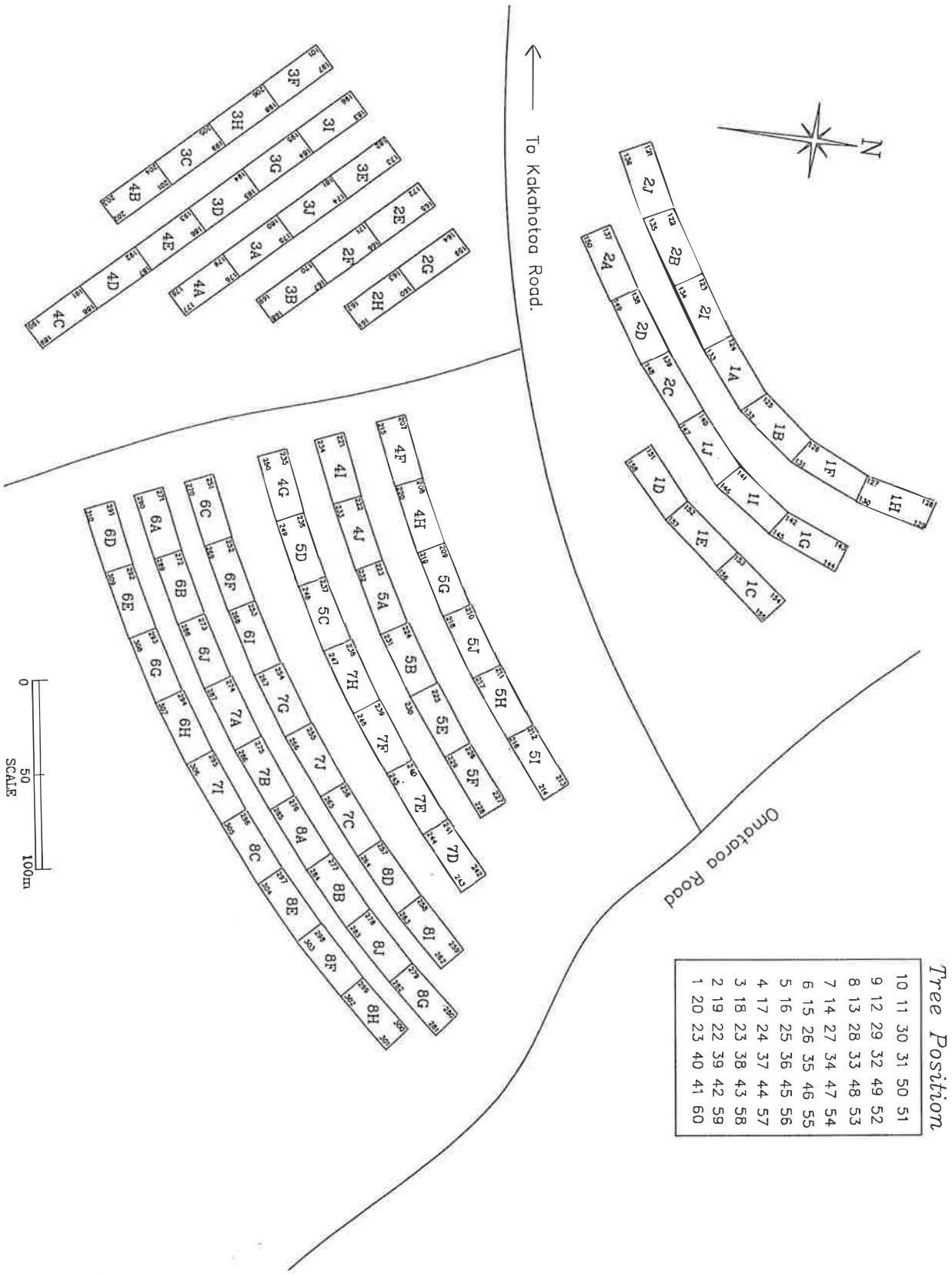
22

N

Plotted 26/11/97



forest research	TITLE: **1997 *EUCALYPTUS NITENS* GENETIC GAIN TRIAL**
	LOCATION: **CPT 22, OMATAROA FOREST, EASTERN BAY OF PLENTY**
	FOREST OWNER: **CARTER HOLT HARVEY FORESTS**
	ESTABLISHMENT DATE: **NOVEMBER 1997** PLANTED AREA: **5.1 HA**
	SPECIES: ***EUCALYPTUS NITENS*** TRIAL NUMBER: **FR337/2**
	MAP NUMBER: **579** DRAWN BY: **DC MAIKA** DATE: **21 MARCH 1998**
	CONTACT: **RADIATA PINE TREE IMPROVEMENT** PH: **(07) 347-5899**



Map No. 1 a

1 H

128 129
-8 2106 2864 1893 1864 1881
-8 2102 2824 -8 2875 3890
-8 1102 2895 2893 3104 1890
-8 2811 2881 3893 2889 1870
3824 1811 1895 3825 3889 3811
-8 1882 2888 1865 3875 2870
-8 2882 2897 1897 1825 2890
-8 3882 3897 1888 1875 2104
-8 3106 3881 3888 1889 3870
-8 1106 1824 2865 2825 1104
127 130

1 I

142 145
1013 3003 3020 2003 3001 1019
-8 2018 1001 3004 3007 3015
2001 1005 2020 1009 3009 1014
1016 3002 1004 1017 2007 1011
2013 2005 3017 2019 3011 3010
2016 2017 3008 1003 2014 2010
1006 1018 3012 2008 1008 2015
3016 1012 1002 1020 1007 3019
2006 3018 2012 2004 2009 3005
3013 1015 3014 2002 2011 1010
141 146

1 J

141 146
1040 3025 2021 1021 2039 3026
2027 1030 2028 1024 3039 1031
2040 2032 3021 3027 3022 3031
3035 1032 1037 3024 3036 1038
1027 1026 3037 1025 1036 2026
3040 1034 3029 1028 1033 2031
1029 2030 2033 1023 2036 3034
2035 3032 2029 1035 1022 2034
3023 2025 1039 2037 2022 3038
2024 3030 3028 2023 3033 2038
140 147

2 H

163 160
-8 2825 3897 1864 1104 2811
-8 3888 2893 2895 3870 3882
3824 2865 1825 2881 2890 1102
-8 2897 1875 1895 1890 1882
-8 1865 2888 3875 3811 3102
-8 1888 1893 2889 1870 2106
-8 3893 3104 2824 3890 1106
-8 3825 1889 3889 1881 1811
-8 1897 2875 1824 2870 2882
-8 3865 2864 3881 2104 3106
162 161

2 I

124 133
3009 1017 2017 3010 1009 3018
2016 2008 3020 1011 3008 3004
3013 2013 3012 2014 1007 2004
3001 2009 2012 1010 3007 3002
1015 1012 2020 3005 2019 2003
1016 3019 1005 2015 3011 3003
2001 2002 2005 2011 3014 1003
2006 3006 3017 3015 2007 1018
3016 1019 1020 2010 1001 1004
1006 1013 2018 1014 1008 1002
123 134

2 J

122 135
2023 1040 2026 2038 2033 3021
3023 2022 3026 1038 3027 2029
1025 3040 1028 3034 1021 1024
3030 3036 3033 2034 3037 2024
3025 1036 2040 2031 3028 2035
1034 3022 3038 2032 1027 1037
1023 3039 2021 3032 1039 2027
2025 2036 1031 1032 1035 2028
1030 2039 3035 3031 2037 1033
2030 1022 1029 1026 3024 3029
121 136

3 H

205 198
-8 1825 1881 1824 3104 3811
-8 2825 2106 1888 1875 3870
-9 1895 1106 3865 2875 2811
-8 3897 3881 2893 2882 2890
-8 1882 1811 3888 3889 3890
-8 2888 2895 3824 1889 2870
-8 2897 2881 3893 3825 2104
-8 2864 1102 1865 3875 1104
-8 1897 3882 1893 2889 1890
-8 3106 2102 2865 1864 1870
204 199

3 I

196 183
1019 3014 2020 3009 1012 1002
1011 1010 2019 3013 3020 3017
3002 3007 3018 2006 2018 3012
3003 3011 1017 1013 1020 2004
1007 2015 3008 2013 2003 2016
2014 2010 2012 3016 1015 1016
1008 3015 1009 3006 1005 3004
2007 3005 1001 1006 2005 1004
2008 2011 3019 3001 2017 1003
1014 3010 2009 2001 1018 2002
195 184

3 J

181 174
1032 3021 2024 1035 3026 1036
2026 3028 1027 1021 1023 3039
2038 3027 2027 2033 3025 3033
1034 2028 3038 3024 1030 3036
2030 2029 1024 1033 3023 2036
1026 2037 2034 1028 3030 2040
3034 1037 2031 1039 2032 2022
2025 3037 1040 2021 2023 3022
3031 3029 1031 1029 1038 3040
3032 2035 2039 3035 1025 1022
180 175

1997 E.nitens Seed Source Trial, FR337/2 Omataroa Forest
Replications 1 to 3 Sets H to J

Map No. 1 b

4 H

209					219
-8	1811	2890	3897	3889	2895
-8	2811	3875	2865	3104	3882
-8	3881	2870	3888	2864	2102
-8	1106	2875	2893	1864	1825
-8	1882	1890	1888	1889	1865
3824	1102	1881	2888	2824	1104
-8	2106	3811	3893	2889	2104
-8	2882	3890	1893	1875	1897
-8	1895	1870	3865	3825	2825
-8	3106	2881	2897	1824	3870
208					220

4 I

222					233
2006	2018	1019	1001	3005	3004
3006	1018	3007	2019	1010	2012
1006	3020	3008	1003	3015	1020
1016	1012	1009	2003	2015	1017
2001	3018	3011	1007	3001	2020
3009	1015	2007	2014	3010	1002
3016	2017	1011	2008	2010	3017
2016	1005	1014	3014	3002	2004
1013	3003	3019	2009	2002	1004
3013	2005	1008	2011	2013	3012
221					234

4 J

223					232
1036	1025	2021	1038	3024	2028
3039	1030	1034	3031	3021	1039
3036	2025	3033	3032	1021	1037
2036	2030	2033	2026	1033	1035
2039	1032	2031	2038	1024	3027
3022	3023	1027	3038	2024	2037
2022	2032	3040	1026	1029	2029
1022	1023	3037	1031	3029	3028
1040	3030	2034	3034	2035	3035
2040	2023	3025	3026	2027	1028
222					233

5 H

212					216
-8	1875	1104	2825	1811	1888
-8	3875	2104	1865	3811	2870
-8	1864	3890	3825	3882	3865
-8	2875	1870	2897	2811	1893
-8	1889	3881	3888	1102	2893
-8	3104	1895	2888	2102	3870
-8	1824	3106	2864	1106	3893
-8	2824	2106	1825	2882	2865
3824	3889	2881	1897	1882	2890
-8	2889	2895	3897	1881	1890
211					217

5 I

213					214
1006	2018	2014	2002	1007	3011
2001	2005	2019	3004	1019	3002
3016	3003	3010	3017	3007	1005
2013	3018	1014	3012	2008	2020
3013	2017	3014	1020	1008	2003
1016	1012	2015	2012	3008	2007
1013	3009	2011	2004	3019	1003
2006	1018	1011	1017	1001	3020
3006	3001	3015	1002	2009	1010
2016	1015	3005	1004	1009	2010
212					216

5 J

211					217
1036	1032	1026	2025	2037	2030
2036	1025	3030	1023	2035	2021
2039	3032	2026	2028	2029	3029
1040	1038	2032	3024	3035	1034
3040	2038	2034	2027	1033	1030
3039	3034	3038	1029	3028	1027
1022	3025	3023	3021	3037	3027
2022	3031	2031	2024	1035	1028
3033	3022	3026	1024	1039	1037
2040	3036	1031	1021	2033	2023
210					218

6 H

295					306
-8	1811	3893	3106	1897	1889
-8	2890	2893	2102	3889	2875
-8	3870	1870	3882	2865	2864
-8	1881	2104	2106	2889	1875
3824	2881	1104	1895	3825	1825
-8	2895	1893	2882	1888	2888
-8	2811	3888	1106	3865	3897
-8	1890	3890	1882	1865	3104
-8	3811	1824	1102	1864	3875
-8	2870	2824	3881	2897	2825
294					307

6 I

254					287
3006	2019	1020	2006	3014	-8
3009	3007	3002	2016	2011	1014
3001	1001	3020	2013	3010	3018
2002	3008	1004	3012	2007	1010
1003	2008	2020	3016	3011	3015
3004	2009	2003	1017	2015	2018
1013	1008	2005	2012	3005	1018
1006	3019	2004	1002	1011	1012
3003	1009	3017	3013	1007	2010
2001	1019	1005	1016	2014	1015
273					288

6 J

274					287
1034	2028	1025	2029	3038	2039
3036	1029	2032	3028	2034	2040
3022	1027	3026	3029	3034	1031
2036	1028	2030	3037	1024	1026
1036	3027	2023	1039	1021	1040
3023	3021	1032	2035	3031	2038
1022	2021	2025	1033	2024	1038
2022	1035	3030	2033	3024	3032
3039	2027	1023	1037	2031	2026
1030	2037	3025	3035	3033	3040
273					288

1997 E.nitens Seed Source Trial, FR337/2 Omataroa Forest
Replications 4 to 6 Sets H to J

Map No. 1 c

7 H

239					246
-8	2893	1106	3104	2881	1889
-8	1888	2882	2888	3890	3875
-8	3897	2895	2811	1890	1825
-8	3865	1882	2897	1870	2825
-8	2824	2106	1811	3881	2889
-8	1865	3811	1875	1104	2875
-8	3893	1895	3889	2870	3825
-8	2865	3106	3882	2890	-8
3824	1824	2102	1102	2104	2864
1864	3888	1881	1893	3870	1897
238					247

7 I

296					305
2010	3018	1016	2013	2008	2003
1003	1002	1008	3016	1018	1005
2002	3002	1007	1013	3015	2018
2014	3017	1009	3013	1010	3020
3012	3004	3019	1006	2011	1014
3007	2004	1019	3009	2019	2005
2012	3005	2016	2001	1015	3014
2007	1020	3006	3008	1012	3003
3010	1004	2009	3001	1001	2015
1017	2020	2006	3011	2017	1011
295					396

7 J

256					265
1022	1027	1033	2033	3033	3023
3036	3028	1029	2038	3034	2030
3022	1021	2035	1035	1026	1030
1036	1028	3021	2031	2040	3025
2036	3024	3029	2034	3032	1032
3039	2029	1037	1031	1038	1025
2039	2024	2027	3035	3026	2023
2022	3027	1039	3038	3030	1034
1040	1024	3037	3031	2026	1023
3040	2021	2028	2037	2032	2025
255					266

8 H

300					301
-8	3875	-7	1865	1102	2824
-8	1889	1890	2864	1811	2106
-8	3889	3881	2893	2882	2875
-8	3825	1104	3893	1106	1824
-8	2897	2890	2888	1895	1882
-8	2889	2104	2865	2881	1825
3824	1897	1870	3865	3811	2811
-8	3104	2870	1888	3882	1875
-8	1864	3890	1893	1881	3106
-8	2825	3870	3897	2895	2102
299					302

8 I

259					262
3013	3001	3005	-8	1011	3003
2013	3008	2015	3012	3007	3004
2016	2019	1005	2005	3011	1015
1016	1006	1017	3010	1007	2003
1013	2008	2020	3015	1019	2004
3006	1008	2012	2010	3014	2002
3016	1001	3002	1010	2007	1003
2006	1009	1004	1020	2011	1012
2001	2009	1002	2018	1014	1018
3009	3019	3017	2017	2014	3020
258					263

8 J

279					282
3028	1040	2026	3024	2030	2027
1032	3039	3037	2024	2023	2021
3030	3040	2037	3031	1025	1029
1038	2036	2033	2031	2022	1028
3026	2039	1037	3034	3033	3021
2038	3022	1039	1024	3025	2028
2032	3036	3035	1031	1023	3027
1034	2040	1035	1021	2025	3029
3032	1036	1033	3038	1030	1027
1026	1022	2035	2034	3023	2029
278					283

1997 E.nitens Seed Source Trial, FR337/2 Omataroa Forest
Replications 7 to 8 Sets H to J

APPENDIX A

SEEDLOT INFORMATION
FR337/1,2

Set	Origin – central Victoria	Seed Supplier
A	30 families - Waikuku Clonal Seed Orchard	Proseed
B	96/070 Waiouru provenance collection	Proseed
C	VRD 36 AMCOR Seed Orchard	Kylisa Seeds
D	VRD 26 AMCOR Seed Orchard	Kylisa Seeds
E	94/09 Native collection, McAlister S.F, 178 Parent Trees	Kylisa Seeds
F	7 OP families Sumner Spur Seedling Seed Orchard	C. O'Conner
G	Huntsman Seed Orchard – CV/NSW mix	North Forest Products

Individual family lots consist of –

Set H Waikuku Seed orchard (central Victoria)			
Ortet No.	**Seedlot No.**	**Origin**	**Prov.**
886.811	96/190	Heyfield	M
886.824	96/217	Mt Erica	T
888.824	96/191	Mt Erica	T
888.864	96/192	Toorongo Plateau	T
888.865	96/193	Blue Range	R
888.870	96/194	Mt St Gwinear	T
888.875	96/196	Mt St Gwinear	T
888.876	96/197	Mt Horsfall	T
888.881	96/198	Toorongo Plateau	T
888.882	96/199	Mt Horsfall	T
888.888	96/201	Cathedral Range	R
888.889	96/202	Mt Horsfall	T
888.890	96/203	Mt St Gwinear	T
888.893	96/204	Conners Plain	M
888.895	96/205	Mt Erica	T
888.897	96/207	Mt Erica	T
888.898	96/208	Mt Erica	T
889.102	96/209	Mt Erica	T
889.104	96/210	Mt St Gwinear	T
889.106	96/211	Heyfield	M

Set I SNSW					
Tallaganda:		Glenbog:		Badja:	
Ortet No.	O'Conner	Ortet No.	O'Conner	Ortet No.	O'Conner
897.001	24	897.008	4010	897.015	5002
897.002	25	897.009	4011	897.016	5007
897.003	42	897.010	4014	897.017	5010
897.004	56	897.011	4026	897.018	5011
897.005	57	897.012	4030	897.019	5015
897.006	58	897.013	4031	897.020	5018
897.007	59	897.014	4043		

Set J Ebor NNSW	
Ortet No.	CSIRO No.
897.021	16840/MM850
897.022	16840/MM851
897.023	16840/MM853
897.024	16840/MM854
897.025	14907/WT43
897.026	14907/WT44
897.027	14907/WT47
897.028	14907/WT48
897.029	14907/WT49
897.030	14907/WT50
897.031	16636/GJM530
897.032	16636/GJM531
897.033	16636/GJM532
897.034	16636/GJM533
897.035	16636/GJM534
897.036	16636/GJM535
897.037	16636/GJM526
897.038	16636/GJM527
897.039	16636/GJM528
897.040	16636/GJM529

KAWERAU

GSL Capital

TRIAL DESCRIPTION SHEET

FOREST OWNER:	~~Tasman Forest Industries~~ GSL	**EXPT. No.:**	**FR337/1**
FOREST:	Hogg Road	**CPT.:**	
CONTACT PERSON:	Greg Osborne	**PHONE**	:025 824 092
		E.mail:	Greg.Osborne@hdwd.co.nz
CONTROLLING AGENCY:	GTI		
WORK PLAN #:		**PROJECT:**	**FRI CORR. File:**

PURPOSE:
1. To compare the performance of different seedlots of *Eucalyptus nitens.*
2. To test provenance and family variation in *Eucalyptus nitens* to *Septoria pulcherrima* infection.

LATITUDE:	176°36'	**LONGITUDE:**	44°09'		
ALTITUDE:	50 masl	**ASPECT:**	SE/NE	**SLOPE:**	10-15^0

GROUND PREPARATION: Rip and Mounded.

SOIL TYPE:

PREVIOUS USE: Ex Pasture site.

EXPERIMENTAL DETAILS

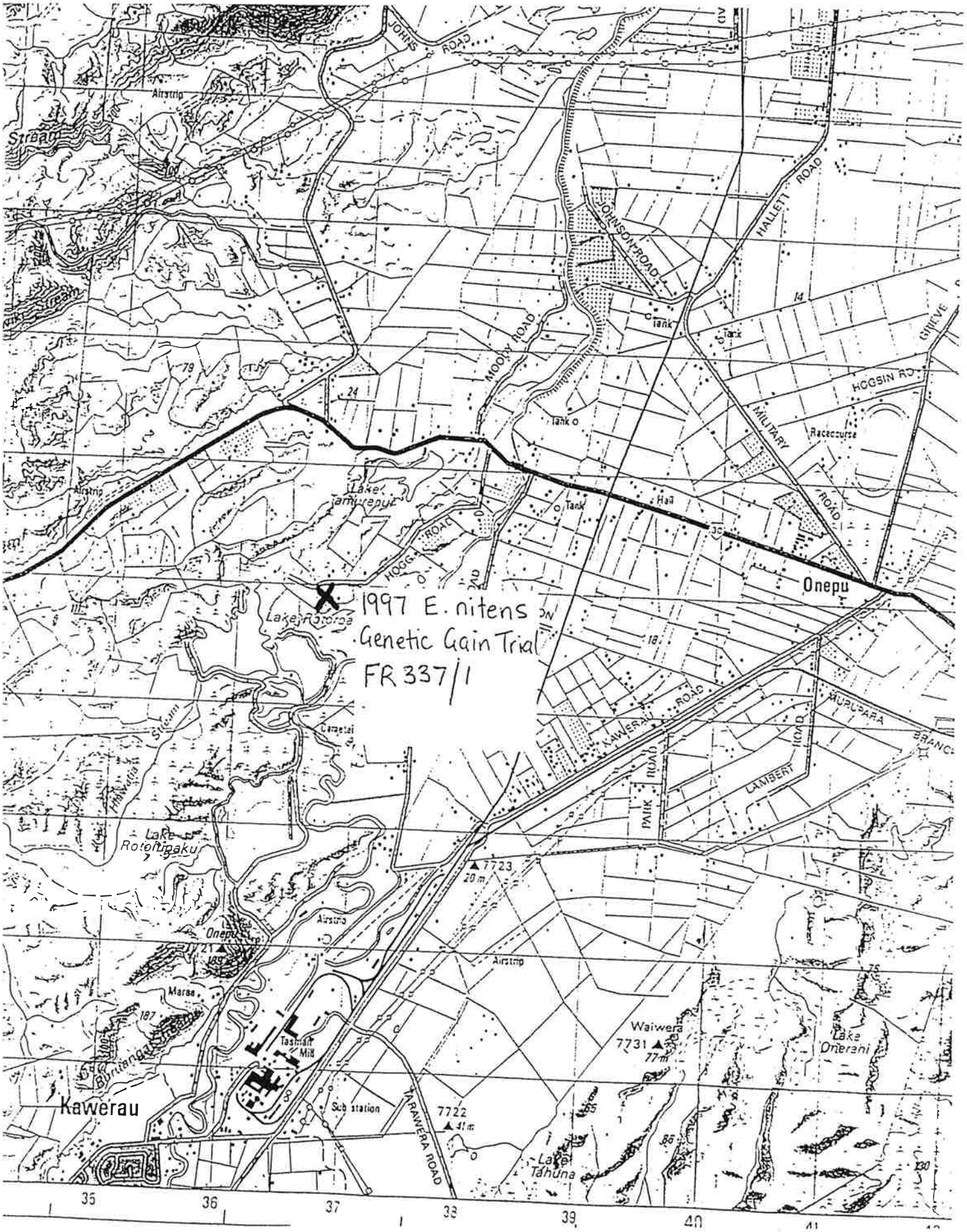
SPECIES:	*Eucalyptus nitens*	**STOCK:**	Root trainer	**DATE PLANTED:**	26/11/97
# OF PLOTS:	66	**SIZE OF PLOTS:**	35 m x 18m	**SPACING:**	3.4 m x 2.8 m
TOTAL AREA:	**4.1 hectares**			**DEMARCATION:**	Numbered posts

EXPERIMENTAL DESIGN: 7 replications, 10 sets, 64 tree plots
Sets A, B, C, D, E, F, G are block plantings, H, I, J are single tree plots.

PROPOSED TREATMENT: **Keep weed free for two years.**

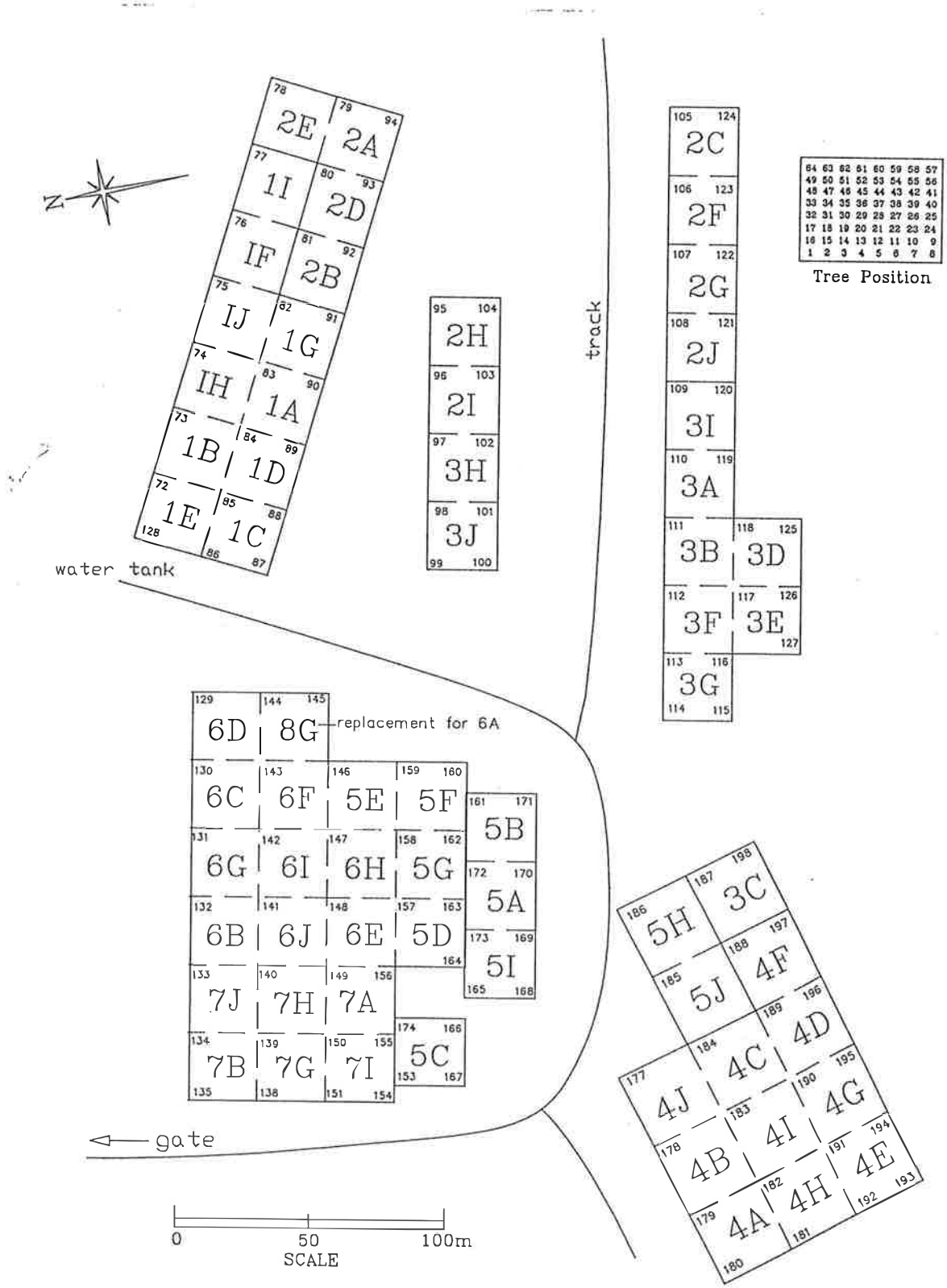
PROPOSED YEARS OF ASSESSMENT: 2001 **PERMANENCY:** 10 years

ATTACHMENTS:
Trial map
Location Map
Single Tree Plot Data
Seedlot Information


1997 E. nitens
Genetic Gain Trial
FR 337/1
JOHNS ROAD
Airstrip
Stream
JOHNSON ROAD
HALLETT ROAD
MOODY ROAD
Tank
GRIEVE
HOGSIN RD
MILITARY ROAD
Racecourse
Lake Tamurepuk
HOGG ROAD
Hall
Onepu
Lake Rotoroa
Camp
KAWERAU ROAD
HURUPARA BRANCH
LAMBERT ROAD
PARK ROAD
Lake Rotomaku
7723
20 m
Onepu
Marae
Tashman Mill
Waiwera
7731
77 m
Lake Onerani
Kawerau
Sub station
TARAWERA ROAD
7722
41 m
Lake Tahuna
35
36
37
38
39
40

forest research

TITLE: 1997 *EUCALYPTUS NITENS* GENETIC GAIN TRIAL
LOCATION: HOGG ROAD, HIGHWAY 30, EASTERN BAY OF PLENTY
FOREST OWNER: TASMAN FOREST INDUSTRIES
ESTABLISHMENT DATE: NOVEMBER 1997 PLANTED AREA: 4.1 HA
SPECIES: *EUCALYPTUS NITENS* TRIAL NUMBER: FR337/1
MAP NUMBER: 580 DRAWN BY: DC MAIKA DATE: 6 APRIL 1998
CONTACT: RADIATA PINE TREE IMPROVEMENT PH: (07) 347-5899



Map No. 1 a

1 H

74							83
-8	-8	3824	2895	2104	3882	2864	3104
-8	1824	-8	1895	1104	1102	1889	3889
-8	-8	2824	1811	3870	1882	2875	1864
-8	-8	1865	3106	2870	2102	2889	3875
-8	1893	2893	2881	2890	3102	3825	1897
-8	-8	3865	1881	1890	1106	1825	1875
-8	3893	2865	2811	3890	2882	3897	2897
-8	1888	3888	3811	1870	2106	2825	2888
73							84

1 I

77							80
3009	2001	2016	2002	-8	3007	-8	2010
3016	1013	1016	1017	1003	3014	1015	2005
3006	2006	2013	2012	3020	3011	1011	3005
-8	3013	2009	1005	1004	1019	1014	1010
-8	2008	3019	2018	2004	2007	2003	1012
1006	3008	1009	2017	2020	2014	3010	2015
-8	3001	2019	1018	1002	1007	3002	3018
-8	1001	1008	1020	2011	3017	3004	3003
76							81

1 J

75							82
-8	2039	3039	1025	3038	2027	2033	1039
1036	3040	1022	2025	2034	1021	2037	2029
3036	1040	2040	3025	2031	2021	1029	3035
2022	3033	2036	-8	3031	1024	2035	1035
-8	2026	3030	2030	3034	3021	1033	3028
-8	2032	1032	1034	1038	2024	1028	1037
-8	3022	1026	3023	2038	1027	3029	2028
-8	3026	3032	1030	1031	3024	3037	3027
74							83

2 H

95							104
-8	1102	1895	1870	-1	1888	3824	1824
-8	2106	2104	3890	2865	3893	3889	2889
-8	1106	1890	3811	1897	1865	2875	1875
-8	1882	3870	2895	3825	3888	1889	1864
-8	2102	1881	2870	3865	1893	3104	-8
-8	3882	1811	2881	2864	2893	2824	-8
-8	3102	3106	2811	2888	2897	3875	-8
-8	2882	1104	2890	1825	3897	2825	-8
96							103

2 I

96							103
2013	3005	2004	3020	3019	3008	1018	1006
3006	1014	3012	2012	1009	2009	1012	3003
3013	3015	1017	1020	1019	1001	1016	3001
1013	2010	3004	2002	2008	2019	2005	2018
-8	2015	3002	1004	1008	3007	2020	1015
-8	1011	1005	1002	1007	2011	2016	3009
-8	3010	3017	1003	3014	2014	3016	2006
-8	1010	2003	3018	2007	3011	2017	2001
97							102

2 J

108							121
2038	2034	1040	2040	3030	3032	2024	3024
1038	3034	3033	2039	1026	2026	1021	1024
1031	3031	3022	3039	3037	3023	2021	2027
2033	2031	2022	2036	2035	1034	3029	3021
-8	3038	1022	1023	1030	2037	1028	1027
-8	1033	3040	3036	1039	2030	2029	3028
-8	1035	1036	2023	3026	3025	2028	3027
-8	3035	1025	2025	1032	2032	1037	1029
109							120

3 H

97							102
-8	1022	1895	2895	3897	2897	2104	-8
-8	2865	1102	1881	1825	2888	2824	3890
-8	1865	2102	3106	3825	2889	3824	2890
-8	3893	2811	1882	3875	2825	3870	1890
-8	3865	1106	2882	2864	1864	1870	-8
-8	1893	1811	3882	1897	1889	1824	-8
-8	2893	3102	3811	3889	3104	1104	-8
-8	1888	2106	2881	1875	2875	2870	-8
98							101

3 I

109							120
-8	1018	3013	1016	2009	1019	3005	1012
2005	3018	2013	-8	3008	1001	3010	3017
2003	3002	2006	3016	1009	2019	3020	2012
2002	1005	2016	1013	3019	2011	3015	1017
-8	1002	1006	2001	2008	3007	2015	2010
-8	3004	3006	3009	2007	1007	2017	2020
-8	1020	2004	3001	2014	3011	1011	1014
-8	1003	3012	1004	3014	1008	3003	1010
110							119

3 J

98							101
3033	3888	2024	3021	1039	1033	2034	2031
3040	3039	1038	3034	3035	3037	2030	3031
1036	3022	2027	1024	3027	1035	2032	1023
2036	3036	1021	2021	1037	1029	1032	1030
-8	2022	3038	2026	2037	2033	3030	3025
-8	2039	3024	3032	2029	2028	2023	2025
-8	2040	1026	2038	2035	3028	1034	3026
-8	1040	1027	1031	3029	1028	3023	1025
99							100

4 H

182							191
-8	2104	1870	1890	3882	2893	3893	-8
2864	1889	1875	3102	2895	3888	3865	-8
2825	3890	3895	2881	1882	2865	2888	-8
1825	1104	2870	1102	3811	1865	3825	-8
2897	3870	2889	1881	1895	1893	-8	-8
1824	3875	3104	2102	2882	1888	-8	-8
2824	2890	2875	2106	1811	1897	-8	-8
3824	1864	3889	1106	2811	3897	-8	-8
181							192

4 I

183							190
3018	2002	3002	1007	3007	2016	1013	-8
2018	1004	1020	1019	2014	3006	3009	-8
1009	3012	2004	3015	2015	1016	2001	-8
2008	2012	1003	3011	1010	3016	3001	-8
1012	3017	1017	3010	1011	3013	-8	-8
2009	1002	2003	2010	3014	2006	-8	-8
1018	3004	1005	1014	1006	2007	-8	-8
1008	1015	3020	3005	2011	2013	-8	-8
182							191

4 J

177							184
3027	3029	2032	3026	1039	2025	3039	-8
2029	3024	1030	3034	2037	2033	3022	-8
1027	1028	3032	2026	1033	3037	1022	-8
3021	1029	3038	1031	2035	2023	3036	-8
1024	2028	2031	2038	3035	1032	2022	1040
3028	2027	3031	3023	1025	1035	1036	2036
2024	1037	1038	3030	1034	2030	3040	2039
2021	1021	2034	1026	3025	1023	3033	2040
178							183

1997 E.nitens Seed Source Trial, FR337/1 , Hoggs Rd
Replications 1 to 4 Sets H to J

Map No. 1 b

5 H

186							187
-8	-8	-8	1882	2875	1889	3895	3870
-8	3882	3025	2893	2825	2897	2104	1890
-8	2824	1888	1865	2889	3104	1104	3890
-8	2106	3893	1893	1864	3875	1870	2870
-8	2102	3888	1102	3825	3897	2890	2811
-8	1824	3865	2865	1897	2888	2895	1811
-8	2882	1106	3824	2864	1825	3811	2881
-8	-8	-8	-8	3889	1875	1881	1895
185							188

5 I

173							169
1019	3008	3005	2013	1017	2002	1006	-8
2009	2010	2011	3006	3004	2017	3009	-8
1008	3007	2015	3013	3017	2005	2016	-8
2008	3014	2014	1001	2012	2003	3001	3016
1007	2007	3010	1020	3012	1012	3020	-8
3019	1009	3015	2020	1002	2018	2006	2001
2019	1010	3011	1003	1004	1005	1018	1016
1015	1011	1014	1013	2004	3002	3003	-1
165							168

5 J

185							188
3021	1037	2030	3023	2038	2032	2039	2202
3029	3024	1025	2025	3038	1032	1036	3036
2028	2024	1023	1035	3031	2026	1040	2036
1029	2021	1033	2037	3032	1031	3039	3022
1024	2027	3035	2023	2034	1034	2040	-8
1028	3027	3037	1039	2031	3034	3033	-8
3028	2029	-1	2035	1038	3026	1022	-8
1021	1027	2033	1030	3030	1026	3040	-8
184							189

6 H

147							158
1889	1825	3875	1890	-8	2882	-8	-8
2888	3897	2825	1881	3890	1882	-8	-8
1893	1897	2897	2881	2870	3882	-8	-8
2864	3104	1864	3811	1870	1106	-8	-8
3893	2893	3888	1895	2104	2106	-8	-8
2875	1865	2889	2895	1104	2102	3824	-8
1875	3825	1888	1811	3895	1102	-8	2824
3865	3889	2865	2811	3870	3102	1824	-8
148							157

6 I

142							147
2009	2019	1001	2018	2010	2004	3006	2001
3020	3018	1009	1020	3005	2012	3001	3009
3002	2005	3008	1005	3015	1004	2013	2016
3003	2002	1008	2011	3010	3012	1013	1016
1015	3007	2008	2017	1011	3017	3016	-8
2020	3014	3019	2014	1014	1017	3013	-8
1018	1012	1019	3011	1010	3004	1006	-8
2003	1003	1007	2007	2015	1002	2006	-8
141							148

6 J

141							148
-8	3027	3021	1034	2038	1030	3023	-8
1029	1028	2027	3032	1038	2022	3025	-8
3028	2029	1027	2032	3034	3033	-8	-8
2033	2037	2021	3026	1026	3039	1036	-8
1035	2035	1024	3030	3031	2030	1022	3022
1033	3037	3024	1031	2026	3040	2036	3036
2028	1037	1021	1032	2031	2039	2040	-8
1039	3035	2024	3038	2034	-8	1040	-8
140							149

7 H

140							149
-8	3104	1889	1824	-8	2102	3890	2890
-8	3889	1864	2824	3893	1106	3895	2811
-8	3875	2825	3824	3865	-8	2870	-8
-8	2875	3825	2881	1865	1102	3811	-8
-8	2864	1897	-8	1893	2882	1870	-8
-8	2889	2888	2895	1888	2106	3870	-8
-8	1875	3897	1890	2865	3102	1104	1811
-8	2897	1825	1881	2893	1882	2104	1895
139							150

7 I

150							155
2018	1018	3018	1014	3007	2009	2016	-8
2005	2017	3002	3011	1019	-8	3001	3016
2012	2002	1015	1011	1007	2011	1016	3009
3012	1005	3003	3010	2007	1001	2001	-8
2020	1017	1012	2014	1009	2008	2006	-8
3017	1003	2003	3015	3008	1010	3013	2013
1020	2004	1002	3005	1008	2015	1013	3006
3020	1004	3004	2010	3019	3014	1006	-1
151							154

7 J

133							140
3038	3031	1024	2033	3029	2025	3033	3040
1034	3024	1027	1039	2028	1023	1036	2022
1032	1031	1038	1035	3027	1025	2039	3039
2034	2031	3034	3035	2029	2023	1040	3036
2032	3032	2038	2035	1037	2030	2040	-8
3030	1021	2024	2037	3028	1030	3022	-8
1026	1028	2021	3037	1029	3025	1022	-8
3026	2026	2027	1033	3021	3023	2036	-8
134							139

1997 E.nitens Seed Source Trial, FR337/1 , Hoggs Rd
Replications 5 to 7 Sets H to J

E.NITENS SEED SOURCE TRIAL FR337/1,2

SEEDLOT INFORMATION

Set	Origin – central Victoria	Seed Supplier
A	30 families - Waikuku Clonal Seed Orchard	Proseed
B	96/070 Waiouru provenance collection	Proseed
C	VRD 36 AMCOR Seed Orchard	Kylisa Seeds
D	VRD 26 AMCOR Seed Orchard	Kylisa Seeds
E	94/09 Native collection, McAlister S.F, 178 Parent Trees	Kylisa Seeds
F	7 OP families Sumner Spur Seedling Seed Orchard	C. O'Conner
G	Huntsman Seed Orchard – CV/NSW mix	North Forest Products

Individual family lots consist of –

Set H Waikuku Seed orchard (central Victoria)			
Ortet No.	**Seedlot No.**	**Origin**	**Prov.**
886.811	96/190	Heyfield	M
886.824	96/217	Mt Erica	T
888.824	96/191	Mt Erica	T
888.864	96/192	Toorongo Plateau	T
888.865	96/193	Blue Range	R
888.870	96/194	Mt St Gwinear	T
888.875	96/196	Mt St Gwinear	T
888.876	96/197	Mt Horsfall	T
888.881	96/198	Toorongo Plateau	T
888.882	96/199	Mt Horsfall	T
888.888	96/201	Cathedral Range	R
888.889	96/202	Mt Horsfall	T
888.890	96/203	Mt St Gwinear	T
888.893	96/204	Conners Plain	M
888.895	96/205	Mt Erica	T
888.897	96/207	Mt Erica	T
888.898	96/208	Mt Erica	T
889.102	96/209	Mt Erica	T
889.104	96/210	Mt St Gwinear	T
889.106	96/211	Heyfield	M

Set I SNSW					
Tallaganda:		Glenbog:		Badja:	
Ortet No.	O'Conner	Ortet No.	O'Conner	Ortet No.	O'Conner
897.001	24	897.008	4010	897.015	5002
897.002	25	897.009	4011	897.016	5007
897.003	42	897.010	4014	897.017	5010
897.004	56	897.011	4026	897.018	5011
897.005	57	897.012	4030	897.019	5015
897.006	58	897.013	4031	897.020	5018
897.007	59	897.014	4043		

Set J Ebor NNSW	
Ortet No.	CSIRO No.
897.021	16840/MM850
897.022	16840/MM851
897.023	16840/MM853
897.024	16840/MM854
897.025	14907/WT43
897.026	14907/WT44
897.027	14907/WT47
897.028	14907/WT48
897.029	14907/WT49
897.030	14907/WT50
897.031	16636/GJM530
897.032	16636/GJM531
897.033	16636/GJM532
897.034	16636/GJM533
897.035	16636/GJM534
897.036	16636/GJM535
897.037	16636/GJM526
897.038	16636/GJM527
897.039	16636/GJM528
897.040	16636/GJM529

TRIAL DESCRIPTION SHEET

FOREST OWNER: Tasman Forest Industries Ltd

EXPT. No.: FR 374/4

FOREST: Kawerau Forest

CPT.:

CONTACT PERSON: Kevin Molony

PHONE: 025 718 613

FAX: 07 308 9029

CONTROLLING AGENCY: *Forest Research*

WORK PLAN #: 3017 **PROJECT:** 44/17 **FRI CORR. File:**

PURPOSE: Test the performance of provenances of *Eucalyptus globulus* and *subspps*

SITE DETAILS:

LATITUDE: 38°05′ **LONGITITUDE:** 176°42′

ALTITUDE: 200m **ASPECT:** S **SLOPE:** <10°

GROUND PREPARATION: Ripping and mounding

SOIL TYPE:

PREVIOUS USE: Manuka/kanuka scrubland

EXPERIMENTAL DETAILS:

SPECIES: *E.globulus and subspps* **STOCK:** Containerised **DATE PLANTED:** July1999

 # OF PLOTS: 43 **SIZE OF PLOTS:** 21m x 24.5m **SPACING:** 3.0m x 3.5m

TOTAL AREA: **2.21ha** **DEMARCATION:** Numbered posts

EXPERIMENTAL DESIGN:

Completely randomised blocks with non-contiguous plots

PROPOSED TREATMENT:
Weed free for first 2 years

PROPOSED YEARS OF ASSESSMENT: 2003 **PERMANANCY:** 20 years

ATTACHMENTS: Location map
Plot map
Tree position map
Subspp/provenance listing

1999 EUCALYPTUS GLOBULUS
PROVENANCE TEST
FR374/4
Wairere Bay
Taumaihi I
Matatapu Rocks
Okurei Point
Maketu
Little Weihi
Weihi Estuary
Pukehina Beach
Kaikokopu Canal
Pukehina
Maniatutu Sdg
Pongakawa Stn
Ohinepanoa Stn
Otamarakau
Tokata Island
Rurima Island
Moutoki Island
Pikowai
Kohioawa Beach
Tarawera River
Rangitaiki River
Pongakawa Valley
Matata
Awakaponga
Thornton
Hawkens Junction
Otakiri Stn
Piripai
Paroa
Kopeopeo Canal
Otakiri
Edgecumbe
Poroporo
Pahou
White Pine Bush
Awakeri
Awakeri Springs
Whakatane West
Lake Rotoehu
Lake Rotoiti
Hinehopu
Rotoehu
Lake Rotoma
Gisborne Point
Rotoiti
Te Teko
Kawerau
Mt Edgecumbe
Te Mahoe
Matahina
Lake Matahina
Tarawera River
Lake Tarawera
Mt Tarawera
Tarawera Ridge
Lake Rotomahana
Waiohau
Te Whakaumu
Whakatane River
Te Kauae
America

TITLE: **1999 *EUCALYPTUS GLOBULUS* PROVENANCE TRIAL**

LOCATION: **KAWERAU FOREST**

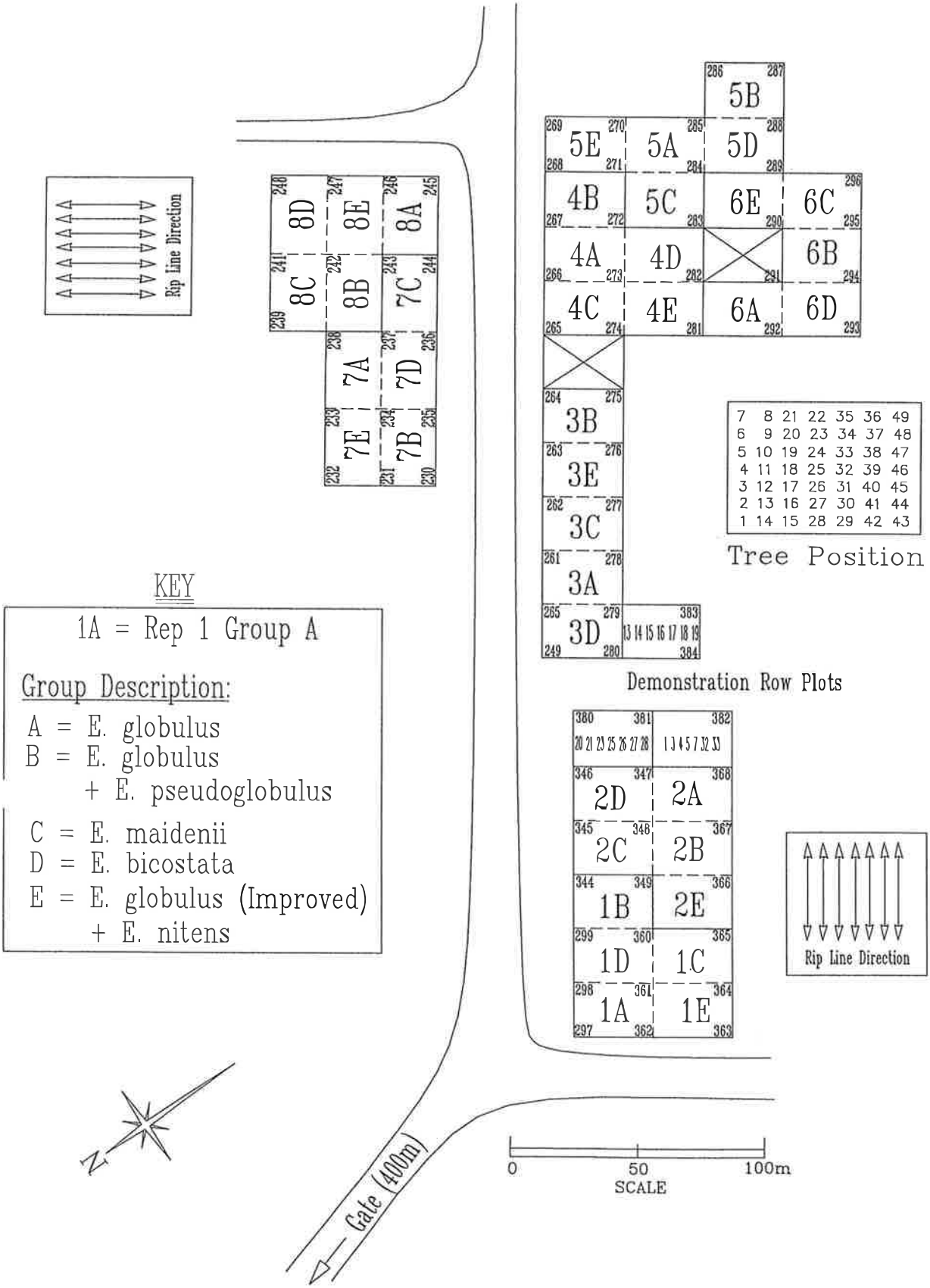
FOREST OWNER: **TASMAN FOREST INDUSTRIES**

ESTABLISHMENT DATE: **JULY 1999** SPECIES: ***E. GLOBULUS***

PLANTED AREA: **1.76 HA** PLANTED STEMS: **1960** TRIAL NUMBER: **FR374/4**

MAP NUMBER: **600** DRAWN BY: **DC MAIKA** DATE: **27 JULY 1999**

CONTACT: **TARGETED SPECIES FOR GLOBAL OPPORTUNITIES** PHONE: **(07) 347-5899**



1999 *E.globulus* provenance Trial
Individual-tree-position Map at Kawerau
Replication 1 and 2, and Demonstration Plots

380 | 381 | 382

20	21	23	25	26	27	28

Demo plot
E.globulus* ssp *bicostata

1	3	4	5	7	32	33

Demo plot
E.globulus* ssp *globulus

346 | 347 | 368

2D

327	224	528	324	728	124	625
422	526	524	726	323	426	724
628	725	727	723	527	624	627
125	222	228	626	522	623	322
622	427	424	325	227	428	126
123	525	127	128	423	225	328
226	722	425	523	326	122	223

2A

406	212	502	606	202	310	104
410	409	510	404	712	302	609
702	704	206	412	604	411	612
511	709	711	110	109	306	509
506	602	304	112	706	312	504
102	611	402	111	204	710	211
106	209	311	309	210	512	610

345 | 348 | 367

2C

718	315	115	314	219	618	619
615	713	714	117	418	419	114
213	119	413	218	515	719	617
414	415	116	715	215	613	519
317	513	217	616	514	614	316
518	516	517	113	313	417	319
716	318	216	717	118	416	214

2B

603	301	505	721	101	320	205
501	303	621	201	121	601	507
707	521	108	703	308	708	520
405	607	620	408	105	401	608
508	305	407	220	203	221	605
420	208	720	107	701	503	207
705	307	403	120	321	103	421

344 | 349 | 366

1B

707	605	720	205	520	508	708
401	608	105	301	408	705	203
405	121	420	507	201	607	421
320	505	208	221	303	305	403
621	307	701	108	101	103	501
308	521	603	407	620	207	321
721	120	107	601	703	220	508

2E

632	136	229	332	331	236	630
529	130	636	233	334	235	431
531	633	231	532	133	230	432
234	135	132	536	429	135	629
430	634	533	129	134	131	336
631	635	329	436	530	433	-7
330	232	534	535	333	434	335

299 | 360 | 365

1D

225	324	628	724	325	524	322
323	627	223	427	128	522	127
726	625	626	624	126	425	426
123	722	527	328	727	523	725
428	623	622	424	528	327	723
423	728	124	525	226	422	125
224	326	222	526	227	228	122

1C

218	213	617	516	515	216	214
413	319	416	119	416	319	619
717	313	719	117	418	316	718
315	118	414	615	414	415	417
114	116	317	715	219	618	614
113	518	215	716	513	514	213
517	419	519	714	217	419	314

298 | 361 | 364

1A

304	611	112	606	312	410	106
612	309	306	711	709	311	109
706	704	211	604	110	412	610
512	509	302	212	209	506	204
710	111	404	202	510	102	409
406	402	511	712	504	411	310
602	206	609	210	502	104	702

1E

531	633	432	336	429	434	532
530	229	433	630	631	130	998
634	233	332	635	232	236	132
131	629	331	636	235	129	231
135	632	436	535	430	334	533
333	435	230	534	136	330	134
234	329	133	529	431	335	536

297 | 362 | 363

1999 *E. globulus* Provenance Trial
Individual-tree-position Map at Kawerau
Replication 3 and Demonstration Plot

265 274

E. nitens

264 **3B** 275

605	321	508	120	303	205
420	603	705	307	505	103
621	407	301	608	721	520
320	221	203	521	108	207
503	708	405	703	701	401
305	107	501	220	403	408
720	105	308	707	101	620

263 **3E** 276

232	435	432	336	231	134
536	998	233	629	436	331
630	236	535	532	529	335
434	130	133	329	433	330
235	429	132	636	334	136
533	230	129	131	332	531
234	633	431	530	635	634

262 **3C** 277

613	615	614	718	617	117
315	219	215	116	118	419
719	214	716	717	114	517
416	514	115	619	618	715
319	413	519	418	113	713
314	518	313	516	714	415
515	213	414	217	216	317

261 **3A** 278

210	402	604	610	611	410
211	310	509	712	206	106
502	411	606	204	612	702
404	704	112	209	110	306
711	302	111	710	511	709
409	212	609	512	202	504
412	309	506	102	304	311

265 **3D** 279

128	325	327	124	628	723
425	524	528	126	624	322
724	227	523	324	623	225
726	428	125	422	626	426
323	627	728	525	527	622
625	222	727	722	224	226
122	123	725	427	522	328

249 280

383

Demo plot
E.globulus* ssp *maidenii

13 14 15 16 17 18 19

384

1999 E.globulus Provenance Trial.
Individual-tree-position Map at Kawerau - Bay of Plenty. Replications 4, 5, and 6.

286 — 5B — 287

721	620	407	120	205	701	505
708	305	705	603	707	420	301
720	521	207	108	601	107	520
221	203	101	403	121	508	103
320	607	421	308	201	405	208
321	703	220	307	105	608	401
503	408	621	605	303	501	507

269 — 5E — 270

998	636	534	235	136	535	233
536	134	632	330	432	429	635
631	433	334	436	135	633	529
129	431	133	634	430	335	236
132	629	232	336	532	531	329
331	234	630	533	230	434	131
333	130	332	435	229	231	530

285 — 5A — 270

506	104	702	712	711	504	410
202	406	304	309	106	109	102
612	704	310	204	311	604	411
409	112	111	402	510	606	210
706	610	212	709	312	209	602
509	404	511	412	611	110	609
502	710	512	211	206	602	306

288 — 5D — 285

124	128	722	723	626	222	720
523	525	423	227	228	424	627
527	324	327	622	428	325	224
724	425	426	123	125	322	427
623	524	422	225	323	528	526
122	328	126	727	628	127	725
726	223	624	226	625	326	522

268 — 4B — 271

421	608	201	307	620	503	701
107	121	308	621	205	507	420
508	407	521	120	721	408	405
703	707	501	505	108	303	301
305	603	705	720	208	320	105
321	220	103	207	101	203	401
520	221	708	605	403	601	607

271 — 5C — 284

216	416	518	613	217	215	718
515	116	419	513	213	616	714
618	319	415	617	517	413	214
313	619	118	114	316	516	113
117	315	717	219	218	519	414
514	317	115	314	716	318	715
614	615	418	719	713	417	119

289 — 6E — 284

135	229	434	633	536	131	333
636	634	435	134	529	136	535
631	335	531	235	431	132	236
230	429	534	630	234	533	998
632	130	635	232	330	334	532
530	332	129	231	436	329	336
133	430	331	233	432	433	629

296 — 6C — 289

616	119	514	516	114	618	313
113	617	518	713	418	115	314
319	718	219	515	213	218	116
717	415	318	118	216	714	318
315	414	117	214	317	215	417
613	615	513	217	715	517	419
519	413	716	619	416	719	614

267 — 4A — 272

706	611	204	406	302	709	104
304	312	110	702	211	412	209
609	510	109	310	106	502	512
704	509	712	102	212	306	402
311	604	511	612	710	409	410
309	112	206	111	202	606	602
504	506	711	404	411	210	610

272 — 4D — 283

327	226	322	523	425	527	125
624	725	128	524	626	326	222
528	122	723	522	727	223	224
623	724	728	423	225	424	428
227	228	625	422	627	525	123
126	426	324	628	325	722	726
427	526	328	124	323	127	622

283 — *E. nitens* — 290

290 — 6B — 295

505	501	205	703	407	120	307
701	720	207	208	301	108	420
305	401	308	507	103	220	508
707	721	421	601	621	408	405
320	121	101	105	201	303	521
605	203	620	107	221	708	520
603	321	607	608	503	705	403

266 — 4C — 273

713	418	514	715	618	215	513
518	414	718	716	313	314	319
213	516	114	515	614	113	714
416	318	719	317	413	315	117
118	619	316	214	116	218	616
617	219	419	216	517	519	717
119	217	615	613	115	417	415

273 — 4E — 282

131	334	231	532	433	232	230
336	431	333	330	132	435	134
233	430	432	536	533	429	133
629	135	229	130	332	436	634
531	529	530	235	633	535	630
632	998	236	534	329	434	636
635	129	234	335	631	136	331

282 — 6A — 291

410	304	712	206	711	604	610
404	312	709	311	209	602	204
612	606	402	609	112	306	210
309	512	110	611	706	212	106
411	509	104	406	504	511	602
710	412	506	102	110	310	111
704	409	202	510	211	109	502

294 — 6D — 291

122	724	327	123	526	322	625
427	522	626	728	522	328	623
323	426	324	422	325	124	726
222	528	125	628	624	622	428
126	727	224	223	227	223	225
627	525	127	425	423	424	722
725	526	128	723	524	527	226

265 — 274

E. nitens

281 — 292 — 293

264 275

1999 E.globulus Provenance Trial - Individual-tree position at Kawerau, Bay of Plenty. Replication 7 and 8.

239

8C

319	217	517	118	619	615	713
714	716	414	616	317	313	717
518	213	415	410	215	718	413
613	719	617	715	513	216	314
618	114	318	113	119	614	516
315	519	116	418	316	218	515
416	714	115	219	117	514	417

241

8D

324	326	124	327	525	526	223
991	125	228	423	728	224	625
127	524	626	992	225	997	726
128	993	725	996	123	425	424
527	428	226	427	528	723	227
325	523	623	995	727	624	126
628	994	328	724	627	426	323

248

232

7E

434	435	530	134	332	431	535
635	229	331	335	533	536	630
334	633	330	998	231	534	636
436	620	132	429	130	333	135
232	234	336	133	632	631	432
230	129	531	634	329	236	235
136	131	433	430	532	529	233

233

7A

312	302	604	511	202	404	410
306	609	610	206	111	606	704
510	304	709	104	309	611	612
712	204	110	509	710	512	711
209	112	211	106	109	706	702
502	409	506	602	504	402	406
210	411	412	311	310	212	202

238

8B

501	321	401	720	105	603	705
205	507	203	521	303	505	207
-8	408	407	-8	307	221	508
405	707	608	101	103	201	120
701	403	520	121	108	703	605
503	308	601	220	621	620	607
208	301	305	107	420	421	320

242

8E

331	430	234	536	333	134	130
634	132	429	231	230	635	633
330	229	998	433	432	530	329
131	531	332	630	431	533	436
532	434	529	233	136	335	133
336	129	435	334	629	631	632
535	534	232	636	135	235	236

247

231

7B

101	207	720	603	321	501	405
708	605	221	105	220	608	521
705	601	103	307	701	403	108
503	721	505	308	303	420	607
407	120	401	520	408	201	508
205	507	621	208	305	121	301
320	421	107	230	620	703	707

234

7D

723	624	326	222	728	226	122
522	423	228	526	325	323	527
124	427	726	724	328	625	128
327	622	224	223	227	428	125
525	123	425	528	424	225	623
523	222	628	725	727	626	524
422	426	324	127	322	627	126

237

7C

614	617	713	715	718	415	218
413	516	116	619	113	716	117
517	418	513	317	118	315	719
416	313	214	115	616	618	213
519	414	615	316	114	515	318
417	119	717	314	319	216	219
714	215	518	419	514	217	613

243

8A

404	706	702	504	210	106	611
110	512	411	109	412	102	309
602	610	402	212	206	704	311
606	304	211	104	306	509	502
112	410	712	511	709	312	406
409	202	204	510	711	604	612
111	506	302	209	609	310	710

246

230 235 235 236 245

1999 *E. globulus* subspecies provenance trial

Subspecies Groups	Field Code	Subspecies	Provenance
Group 1	2	*globulus*	Brunny Island (CSIRO N°18726)
	6		Clarke (NFP)
	4		Geeveston (CSIRO N°18723)
	9		East Coast North (NFP)
	10		East Coast Central (NFP)
	11		East Coast South Central (NFP)
	12		West Coast Central (NFP)
Group 2	3	*globulus*	King Island (NFP)
	5		Flinders (NFP)
	7		Otway Ranges (NFP)
	8		South Gippsland (NFP)
	1		Jeeralang North (CSIRO N° 16319)
	20	*pseudoglobulus*	Wiebens (CSIRO N°18111)
	21		Cann River (CSIRO N°19470)
Group 3	13	*maidenii*	Bolaro Mt. (CSIRO N°18728)
	14		Bondi S.F. (CSIRO N°19454)
	15		Belowra (CSIRO N°19456)
	16		Myrtle Mt. (CSIRO N°19458)
	17		Yambulla S.F. (CSIRO N°19284)
	18		Tantawanglo (CSIRO N°19460)
	19		Eden (AMCOR N°3499)
Group 4	22	*bicostata*	Canberra (AMCOR N°239)
	23		Burrinjuck (AMCOR N°242)
	24		Tumbarumba (AMCOR N°238)
	25		Wollemi (AMCOR N°243)
	26		Benalla (AMCOR N°244)
	27		Kiewa (AMCOR N°235)
	28		Mansfield (AMCOR N°245)
Group 5	29	*globulus*	Jeeralang (single mother tree)
	30	(improved)	Jeeralang (single mother tree)
	31		S. Geeveston (single mother tree)
	32		W.Coast Tasmania, Hently River (Single Mother Tree)
	33		Mix of seed 17 mothers from 8 provenances *
	34	*nitens*	*E. nitens* C. Victoria (Toorongo 16869)
	35		*E. nitens* NSW
	36		E.nitens Waikuku

* It includes genetic material from: Flinders Island, Seymour, Henly River, Leprena, King Island, Bruny Island, and Otways.

1999 *E. globulus* subspecies provenance trial

Composition of the bulked provenances of provided by North Eucalypt Technologies

GROUP No.	GEO-REGION (Bulked Provenance)	INDIVIDUAL PROVENANCES	No. families/ individual provenance	No. families in bulked provenance
3	King Island	Central King Island South King Island	14 1	15
5	Flinders Island	North. Flinders Island Central Flinders Island Central-North Flinders Island South Flinders Island	9 14 8 11	42
6	Clarke Island	Clarke Island N. Clarke Island West Clarke Island	3 10 28	41
7	Otway Ranges	Cannan Spur Cape Patton Jamieson Creek Lorne Otway State Forest Parker Spur South West Lavers Hill	21 18 7 27 41 56 5	175
8	South Gippsland	Bowden Road Jeeralang Madalya Road Port Franklin Hedley	5 3 6 4 7	25
9	Tasmania East Coast North	Pepper Hill Royal George St. Helens	10 10 10	30
10	Tasmania East Coast Central	Mayfield North Maria Island Triabunna	5 7 9	21
11	Tasmania East Coast South Central	Collinvale Hobart South Moogara	5 10 25	40
12	Tasmania West Coast Central	Badgers Creek Little Hently River Macquarie Harbour	7 10 4	21

RANGIPO

Department of Corrections

TRIAL DESCRIPTION SHEET

FOREST OWNER: Department of Corrections

EXPT. No.: **FR 361/1**

FOREST: Rangipo Prison Farm

CPT.:

CONTACT PERSON: Grahame Hardisty

PHONE: 07 386 1700

FAX:

CONTROLLING AGENCY: FRI-Genetics and Tree Improvement

WORK PLAN #:

PROJECT:

FRI CORR. File:

PURPOSE: Clonal breeding archive of E.nitens

SITE DETAILS:

LATITUDE: 39° 02′

LONGITITUDE: 175° 52′

ALTITUDE: 550m

ASPECT: NE

SLOPE: >5°

GROUND PREPARATION: Ripping

SOIL TYPE: Pumice

PREVIOUS USE: Ex-farmland

EXPERIMENTAL DETAILS:

SPECIES: E.nitens

STOCK: Grafted

DATE PLANTED: 11/98

 # OF PLOTS: 13

SIZE OF PLOTS: 24 x 36m

SPACING: 8 x 6m

TOTAL AREA: 1.12 ha

DEMARCATION: Numbered posts

EXPERIMENTAL DESIGN:
COOL design

PROPOSED TREATMENT:
Weed free for first 2 years, animal control

PROPOSED YEARS OF ASSESSMENT:

PERMANANCY: 20 years

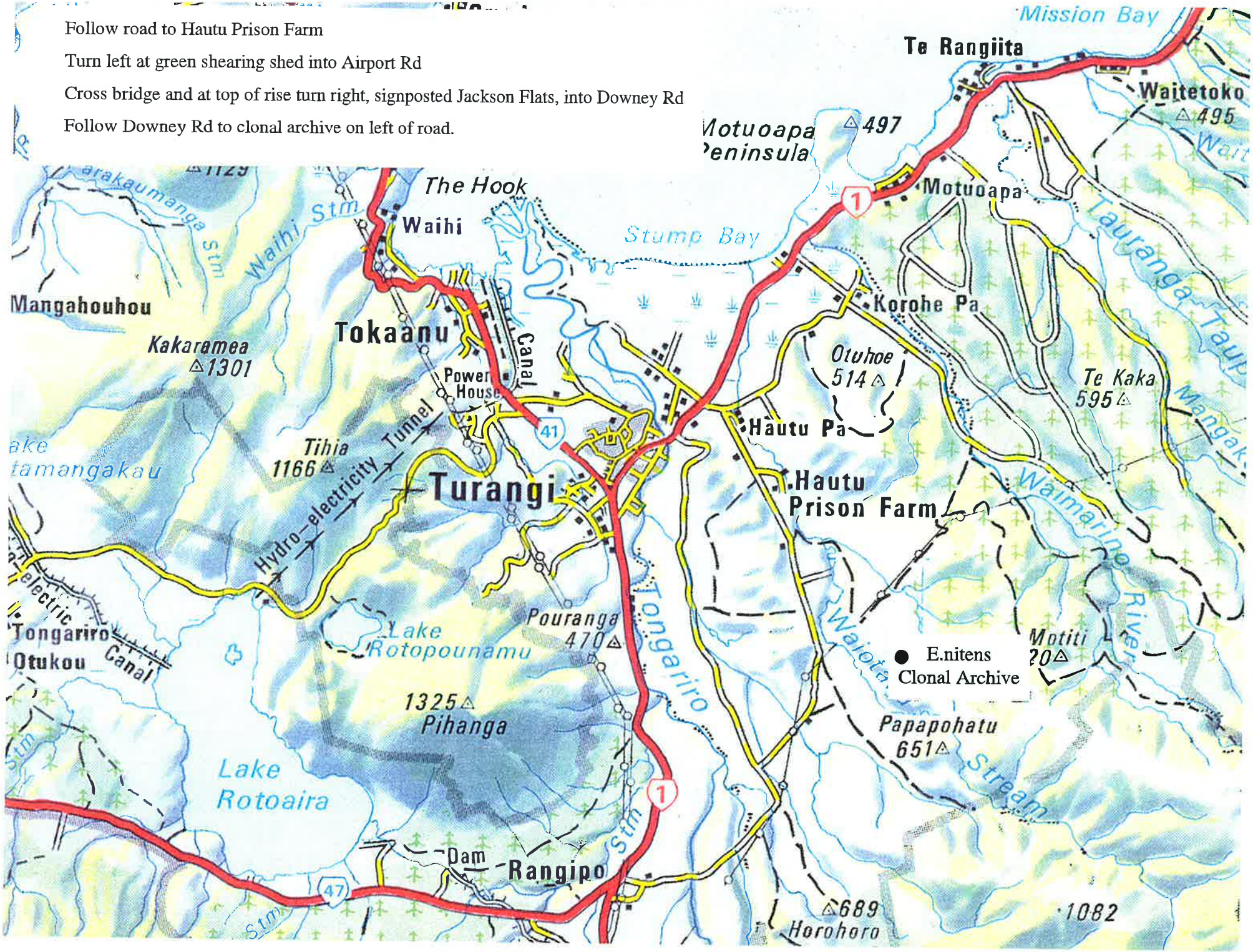
ATTACHMENTS:
Location map, Plot map, Clonal listing

Follow road to Hautu Prison Farm

Turn left at green shearing shed into Airport Rd

Cross bridge and at top of rise turn right, signposted Jackson Flats, into Downey Rd

Follow Downey Rd to clonal archive on left of road.



E.nitens Breeding Population Clonal Archive
Rangipo Prison Farm

Grafts planted November 1998

Spacing 6m x 8m

17	414	403	430	16	152	403	101	1
	408	106	429		419	417	414	
	422	400	135		426	418	428	
	403	107	156		155	129	403	
	429	165	414		401	158	153	
	134	110	408		174	429	411	
18	899	140	425	15	403	404	899	2
	402	406	161		423	424	811	
	116	429	409		412	428	158	
	No tree	156	407		416	420	429	
	403	153	140		107	403	411	
	412	424	408		165	417	135	
19	429	426	409	14	124	174	422	3
	424	139	416		420	155	158	
	419	400	874		106	428	132	
	156	406	163		405	412	5	
	105	402	409		160	129	134	
	132	401	408		411	429	404	
20	412	169	899-104	13	150	410	425	4
	429	407	109		406	110	409	
	418	416	135		174	161	No position	
	410	411	140		405	147	410	
	101	415	141		422	417	402	
	426	169	165		410	109	421	
21	400	105	107	12	153	146	169	5
	410	404	429		155	415	406	
	129	150	110		No position	163	166	
	420	139	811		400	425	427	
	401	406	152		165	421	134	
	415	419	407		168	419	402	
22	425	416	166	11	404	417	415	6
	421	131	413		141	401	131	
	109	406	420		405	101	427	
	124	150	899		407	146	168	
	168	415	152		105	421	166	
	406	105	427		165	132	152	
23	899	146	413	10	139	No position	No position	7
	165	161	165		152	105	165	
24	105	132	899	9	899	147	132	8

D O W N E Y S R D

Table 1 Grafts established in Breeding Archive at Rangipo Prison Farm, November 1998

Ortet No.	Tree Location (Rep.set.code)	Code	Related	DBH	STR	BRH	PIL	Density	Selection	Origin	Parent Code	Gen	Prov	Alt
886.811			1						BS	Heyfield	6	2	M	1000
888.874			4						BS	Conners Plain	81	2	M	1310
888.899			7						BS	Mississippi, Powellton	116	2	T	820
889.104									BS	Mt St Gwinear	111	2	T	1175
896.400	12306655	655	8	0.245	0.106	0.079	0.271		FS	Rubicon	S1612	2	R	
896.401	10301893	893	3	0.325	0.312	0.041	0.653		FS	Conners Plain	78	2	M	1310
896.402	10406925	925		0.252	0.394	0.167	0.021		FS	Snobs Creek	1398	2	R	937
896.403	10507835	835	4	0.124	0.529	0.377	0.014		FS	Conners Plain	81	2	M	1310
896.404	10508061	61		0.145	0.271	0.225	-0.463		FS	Mt St Gwinear	8	2	T	1175
896.405	10602698	698		0.137	0.529	0.189	-0.705		FS	Mt Erica	S2689	1	T	1000
896.406	10702694	694		0.231	0.351	0.408	0.304		FS	Mt Erica	S2677	1	T	1000
896.407	10705940	940		0.340	0.367	0.192	-0.482		FS	Toorongo Plateau	1135	2	T	880
896.408	10708111	111	6	0.278	0.317	0.254	-0.781		FS	Mississippi Powelton	115	2	T	820
896.409	10806964	964	10	0.499	0.320	0.088	0.492		FS	Mt Torbeck	1414	2	R	729
896.410	11005874	874	4	0.225	0.523	0.292	-0.820		FS	Conners Plain	81	2	M	1310
896.411	11310057	57	2	0.281	0.199	0.018	-0.030		FS	Blue Range	75	2	R	1000
896.412	12202736	736	9	0.354	0.502	0.195	0.096		FS	Mt Erica	S2691	1	T	1000
896.413	10206655	655	8	0.445	0.210	0.061	-0.214		FS	Rubicon	S1612	2	R	
896.414	12502704	704	9	0.322	0.299	0.253	0.900		FS	Mt Erica	S2691	1	T	1000
896.415	12502736	736	9	0.366	0.274	0.103	-0.191		FS	Mt Erica	S2691	1	T	1000
896.416	12603632	632		0.184	0.223	-0.004	0.577		FS	Tweed Spur	S404	1	R	970
896.417	12608840	840		0.314	0.082	-0.052	-0.155		FS	Mt St Gwinear	89	2	T	1175
896.418	12701664	664		0.416	-0.044	-0.119	0.310		FS	Loch Valley	S59	1	T	900
896.419	12801606	606		0.310	0.217	-0.084	0.667		FS	St Gwinear	S377	1	T	900
896.420	12803728	728		0.084	0.261	0.159	-0.106		FS	Rubicon	S1710	1	R	
896.421	12806964	964	10	0.456	0.476	0.120	0.330		FS	Mt Torbeck	1414	2	R	729
896.422	12902068	68		0.263	0.279	0.207	-0.422		FS	Waiouru		1	T	900
896.423	13001611	611		-0.045	0.689	0.467	-0.354		FS	St Gwinear	S52	1	T	900
896.424	13003116	116		0.165	0.123	-0.070	-0.354		FS	Manapouri		1	NSW	
896.425	13003650	650		0.228	0.307	0.034	-0.292		FS	Snobs Creek	S407	1	R	937
896.426	13003732	732		0.344	0.299	0.136	0.204		FS	Rubicon	S1694	1	R	

Table 1 cont.

Ortet No.	Tree Location (Rep.set.code)	Code	Related	DBH	STR	BRH	PIL	Density	Selection	Origin	Parent Code	Gen	Prov	Alt
896.427	13005874	874	4	0.176	0.210	0.221	-1.055		FS	Conners Plain	81	2	M	1310
896.428	13007831	831	3	0.178	0.199	-0.030	-0.308		FS	Conners Plain	78	2	M	1310
896.429	13008042	42	5	0.246	0.123	-0.009	-0.919		FS	Toorongo Plateau	110	2	T	880
896.430	13008056	56	7	0.307	0.042	-0.006	-0.442		FS	Mississippi Powelton	116	2	T	820
897.101	10105869	869		0.146	0.136	-0.175	-1.309	446	FS	Mt. Skene	117	2	M	1160
897.105	10206917	917		0.290	0.120	-0.200	-0.570		FS	Snobs Creek	1259	2	R	945
897.106	10301118	118		0.380	0.300	0.000	-0.530		FS	Rotoaira Mix (I. Nicholas)	-	2		
897.107	10301601	601		0.370	0.200	0.080	-0.510		FS	Mt Erica	S2681	1	T	1000
897.109	10307106	106	1	0.290	0.002	-0.070	-0.781	429	FS	Heyfield	6	2	M	1000
897.110	10310863	863		0.277	0.048	0.019	-0.785	440	FS	Blue Range	124	2	R	1000
897.116	10705932	932		0.255	-0.083	0.003	-1.018	421	FS	Little Boys Ck	1302	2	T	1045
897.124	11109879	879		0.074	0.287	0.297	-1.214	451	FS	Pennys Saddle	112	2	T	810
897.129	11208054	54		0.276	0.010	-0.182	-0.070	426	FS	Mt St Gwinear	87	2	T	1175
897.131	11309899	899	7	0.142	0.364	0.229	-0.536		FS	Mississippi, Powellton	116	2	T	820
897.132	11407836	836	4	0.126	0.027	-0.081	-1.421	433	FS	Conners Plain	81	2	M	1310
897.134	11409853	853		0.500	-0.050	-0.400	-0.820		FS	Mt Erica	114	2	T	1067
897.135	11410110	110		0.297	0.047	-0.134	-0.798	430	FS	Blue Range	71	2	R	1000
897.139	11707933	933		0.185	0.206	0.193	-1.293		FS	Mt Skene	1351	2	M	1150
897.140	11708049	49		0.160	0.220	0.270	-0.770		FS	Starling Hill, Powellton	16	2	T	729
897.141	10608111	111	6	0.177	0.287	0.176	-0.886	458	FS	Mississippi Powelton	115	2	T	820
897.146	12002681	681		0.340	0.360	0.050	-0.350		FS	Mt Erica	S2686	1	T	1000
897.147	12005923	923		0.400	0.370	0.260	-0.420		FS	Mt Toorongo Track	1347	2	T	1000
897.150	12107922	922		0.314	-0.092	-0.229	-0.889	424	FS	Mt Shillinglaw	1375	2	M	915
897.152	12202691	691		0.326	-0.169	-0.254	-0.972	411	FS	Mt Erica	S2688	1	T	1000
897.153	12202701	701		0.234	0.130	0.184	-0.338	423	FS	Mt Erica	S2694	1	T	1000
897.155	12209881	881		0.177	0.057	-0.059	-1.181	476	FS	Toorongo Plateau	20	2	T	880
897.156	12307812	812	1	0.371	-0.002	0.019	-1.054	421	FS	Heyfield	6	2	M	1000
897.158	12408056	56	7	0.328	0.119	0.074	-0.629	429	FS	Mississippi Powelton	116	2	T	820
897.160	12409886	886		0.253	0.272	0.065	-0.481		FS	Mt Erica	113	2	T	1067
897.161	12810063	63		0.197	0.224	0.026	-0.306	429	FS	Snobs Creek	104	2	R	945
897.163	12704651	651		0.230	-0.035	-0.115	-0.908	431	FS	Macalister	S2715	1	M	600
897.165	12710817	817		0.420	0.020	-0.170	-0.360		FS	Mt Victoria	17	2	R	1127
897.166	12710829	829	2	0.304	0.042	0.022	-0.770		FS	Blue Range	75	2	R	1000
897.168	12808042	42	5	0.300	0.078	-0.160	-0.867	421	FS	Toorongo Plateau	110	2	T	880
897.169	12809858	858	7	0.163	0.189	0.083	-0.654	454	FS	Mississippi, Powellton	116	2	T	820
897.174	13001605	605		0.047	0.013	0.028	-1.025	480	FS	Mt Erica	S375	1	T	1000

WAIOURU

Department of Defence

TRIAL DESCRIPTION SHEET

FOREST OWNER: NZ Navy

EXPT. No.: **FR 361/2**

FOREST: HMNZ Irirangi

CPT.:

CONTACT PERSON: Warrant Officer John Bartlett

PHONE: 06 387 5599 Ext 7690

FAX:

CONTROLLING AGENCY: FRI-Genetics and Tree Improvement

WORK PLAN #:

PROJECT:

FRI CORR. File:

PURPOSE: Clonal breeding archive of E.nitens

SITE DETAILS:

LATITUDE: 39° 28′

LONGITITUDE: 175° 40′

ALTITUDE: 980m

ASPECT: NW

SLOPE: >5°

GROUND PREPARATION: Ripping and mounding

SOIL TYPE: Pumice

PREVIOUS USE: Ex-farmland

EXPERIMENTAL DETAILS:

SPECIES: E.nitens

STOCK: Grafted

DATE PLANTED: 10/99

 # OF PLOTS: 16

SIZE OF PLOTS: 24 x 36m

SPACING: 8 x 6m

TOTAL AREA: 1.38 ha

DEMARCATION: Numbered posts

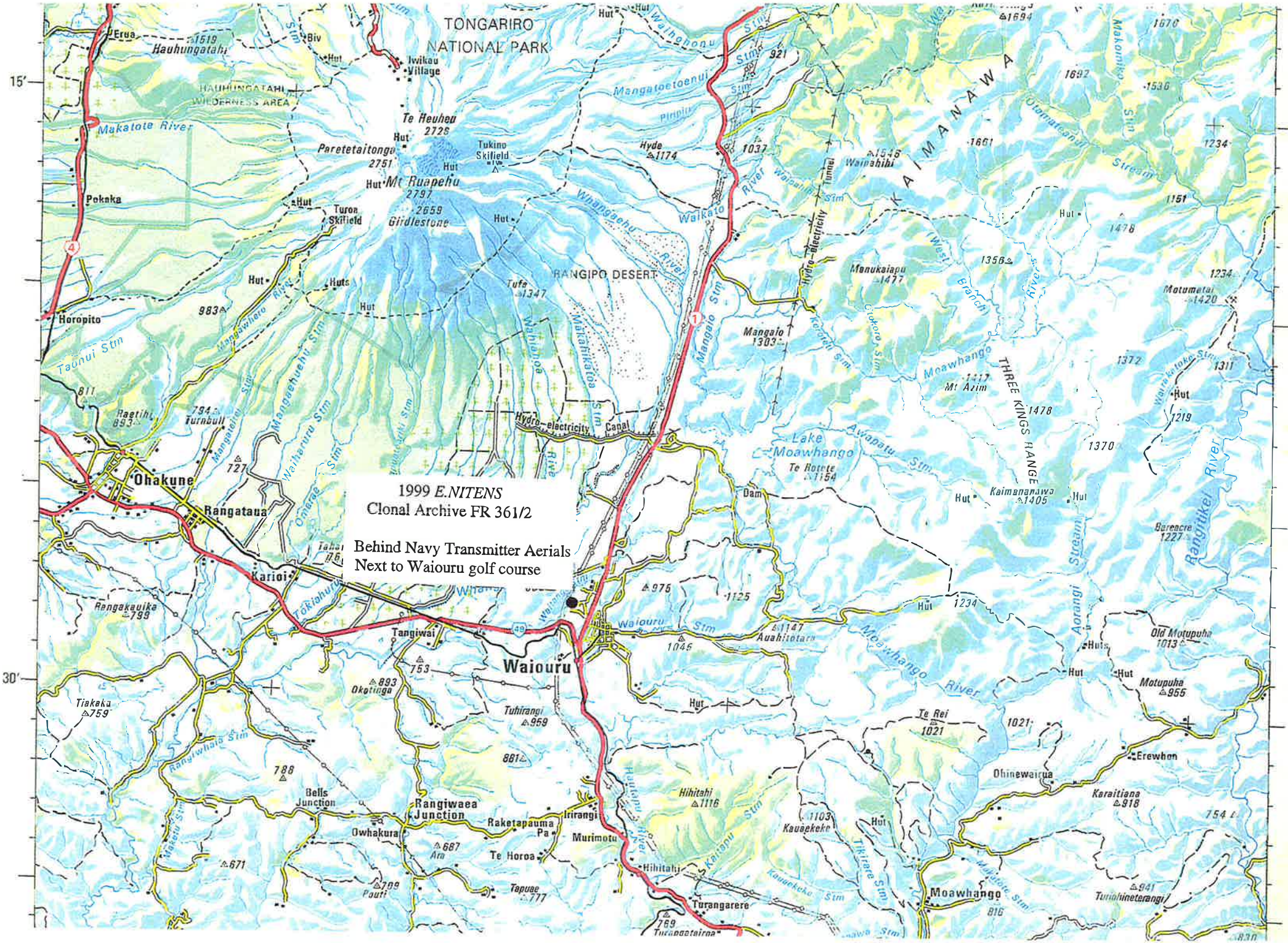
EXPERIMENTAL DESIGN:
3 replications, 1 ramet per clone/rep

PROPOSED TREATMENT:
Spray within rows, mow between rows, animal and insect control

PROPOSED YEARS OF ASSESSMENT:

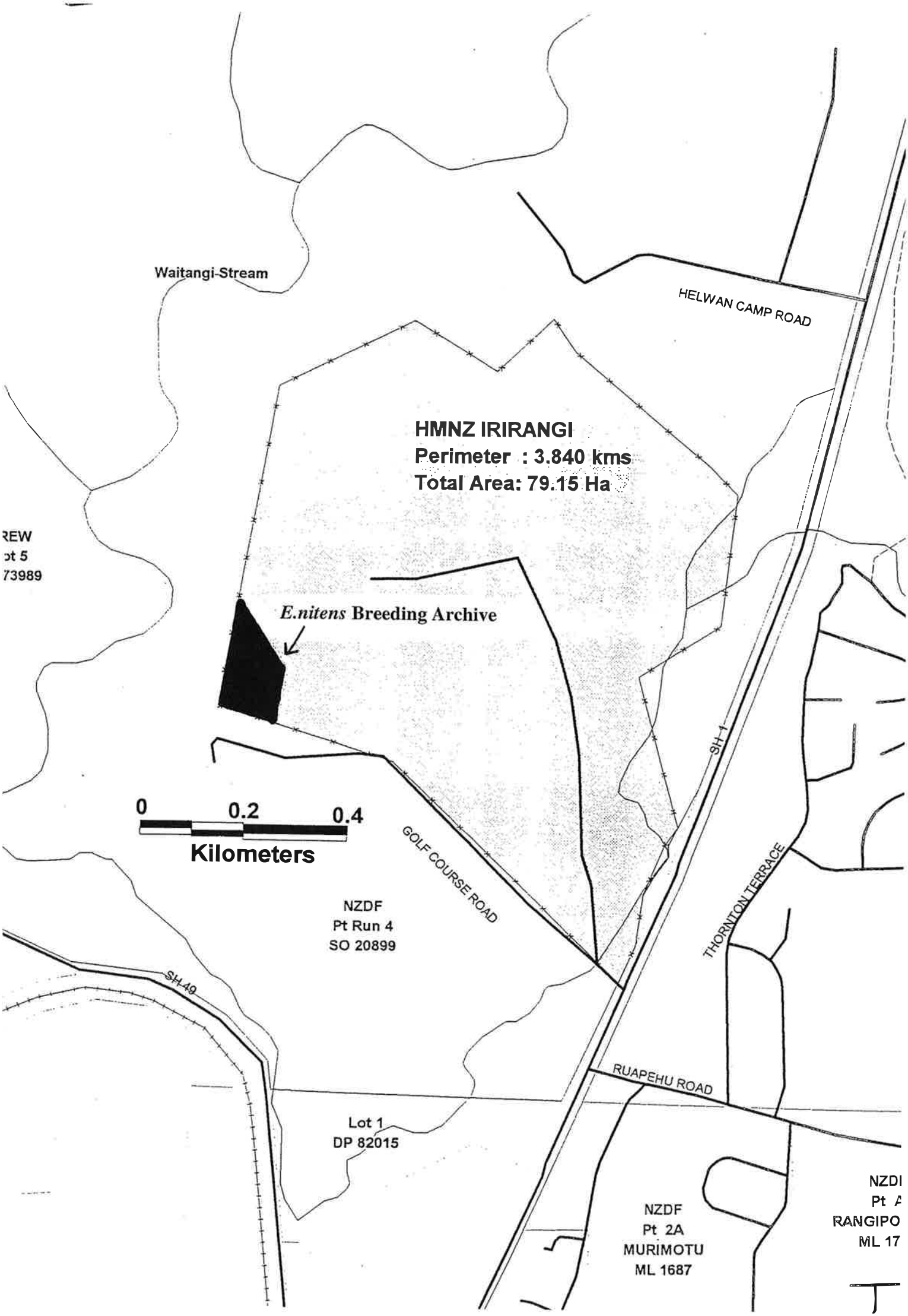
PERMANANCY: 20 years

ATTACHMENTS:
Location map, Plot map, Clonal listing

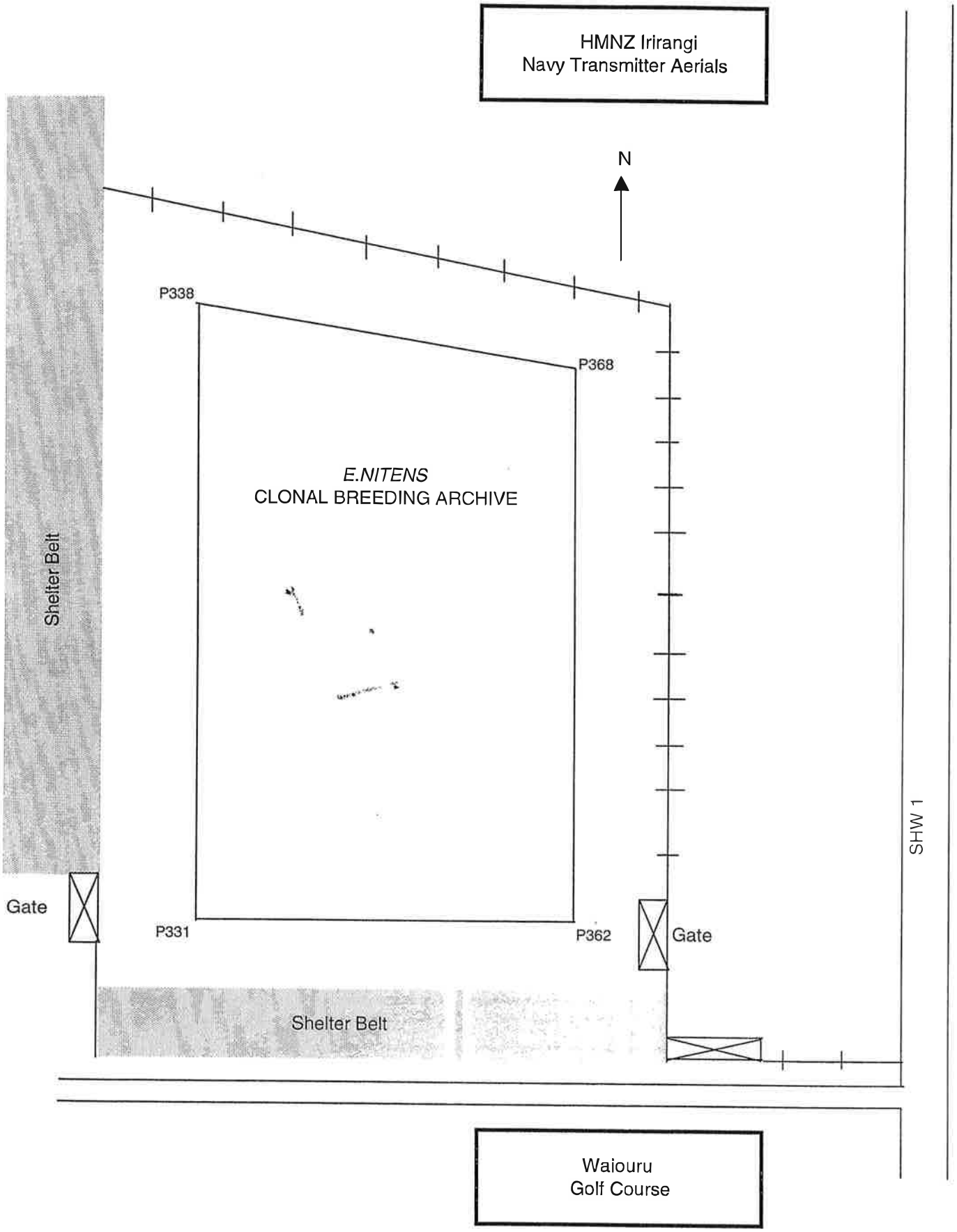


1999 *E.NITENS*
Clonal Archive FR 361/2

Behind Navy Transmitter Aerials
Next to Waiouru golf course


Waitangi Stream
HELWAN CAMP ROAD
HMNZ IRIRANGI
Perimeter : 3.840 kms
Total Area: 79.15 Ha
REW
ot 5
73989
E.nitens Breeding Archive
0
0.2
0.4
Kilometers
GOLF COURSE ROAD
SH 1
THORNTON TERRACE
NZDF
Pt Run 4
SO 20899
SH 49
RUAPEHU ROAD
Lot 1
DP 82015
NZDF
Pt 2A
MURIMOTU
ML 1687
NZDI
Pt A
RANGIPO
ML 17

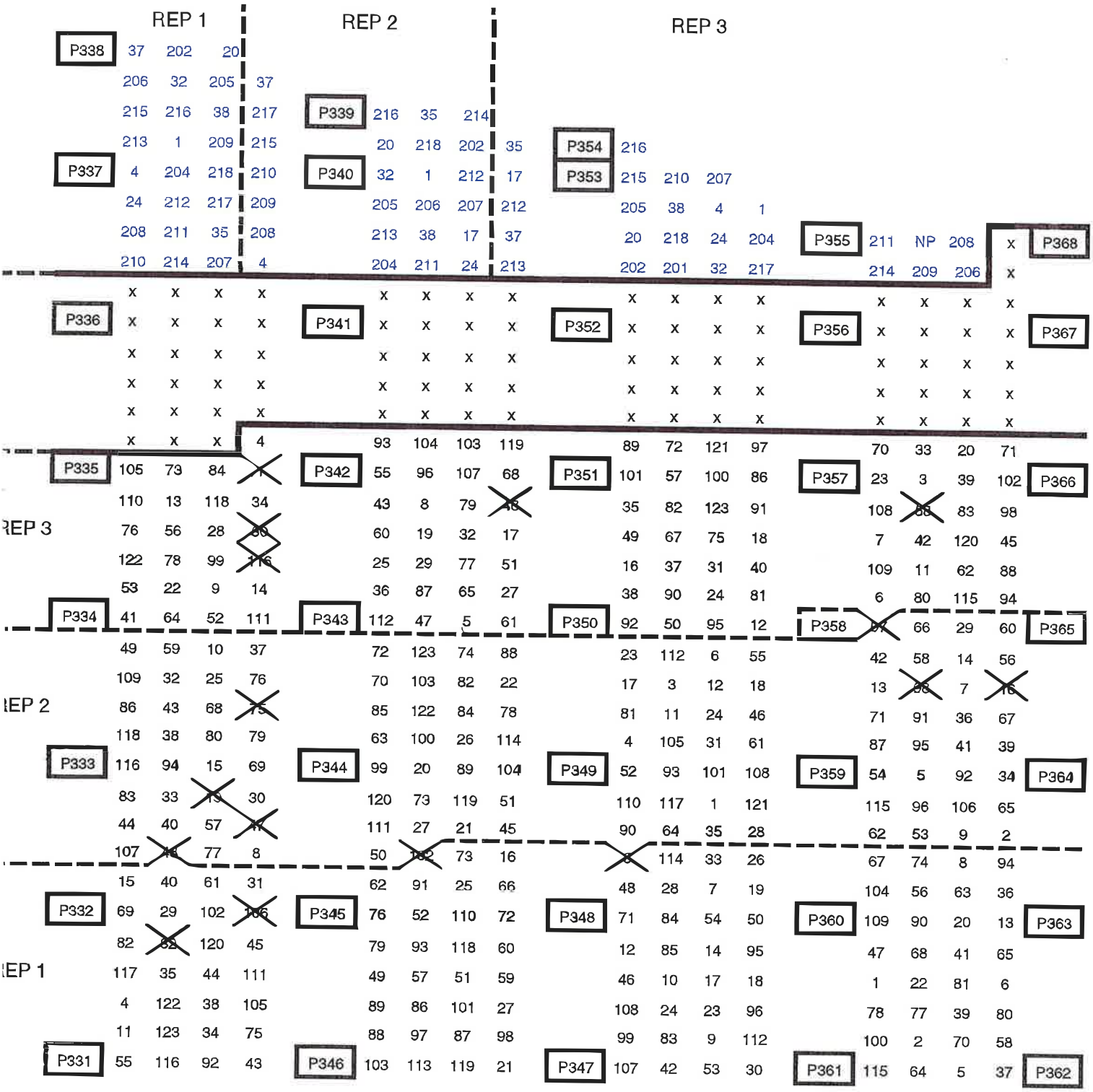
E.NITENS CLONAL BREEDING ARCHIVE - WAIOURU
FR 361/2



E.nitens Clonal Breeding Archive - Waiouru

CV planted October 1999,

NSW planted October 2000



6m

8m

Spacing

N

Oct-00

Table 2 *E.nitens* selections grafted 1998 for establishment in breeding population archive at Waiouru

Ortet No.	Tree Location (Rep,ser,code)	Code	Related	DBH	STR	BRH	PIL	Grwth/Pil	Density	Selection	Origin	Parent Code	Generation	Provenance	Alt
898.001	10101015	15		0.153	-0.263	-0.469	0.000	-0.426	385	FS	*	-	1	Nimmitabel - Maire Road	
898.002	10101019	19		-0.063	0.126	-0.111	0.000	-0.111	381	FS	*	-	1	Nimmitabel - Maire Road	
898.003	10110103	103	11	0.201	0.211	-0.039	-0.683	1.259	443	FS	R	101	2	Toolangi	610
898.004	10203719	719		0.039	0.420	0.351	-0.133	0.982	410	FS	R	S1708	1	Rubicon	
898.005	10210848	848	12	0.130	0.405	0.204	0.104	0.764	368	FS	R	103	2	Royston Road	975
898.006	10207859	859		0.271	-0.012	0.010	-0.671	1.211	443	FS	M	117	2	Mt Skene	1160
898.007	10307825	825		0.088	0.246	0.209	-0.233	0.864	419	FS	M	33	2	Mt Useful	1295
898.008	10307811	811		0.064	0.044	0.005	-0.760	0.937	447	FS	M	6	2	Heyfield	1000
898.009	10405959	959		0.104	0.405	0.160	-0.223	0.996	414	FS	T	1424	2	Mt St Gwinear	1175
898.010	10308844	844	10	-0.070	0.506	0.414	-0.780	1.560	444	FS	T	92	2	Mt St Gwinear	1175
898.011	10402692	692		0.195	0.111	0.210	-0.607	1.318	398	FS	T	S2675	1	Mt Erica	1000
898.012	10406901	901	17	0.189	0.270	0.132	-0.118	0.899	478	FS	R	1269	2	Royston Dam	945
898.013	10406905	905		0.191	0.217	0.141	-0.340	1.081	416	FS	R	1250	2	Snobs Creek	937
898.014	10408041	41	9	-0.097	0.354	0.101	0.000	0.261	392	FS	T	85	2	Mt St Gwinear	1175
898.015	10509870	870	10	0.139	0.465	0.222	-0.569	1.536	425	FS	T	92	2	Mt St Gwinear	1175
898.016	10510865	865	5	0.051	0.400	0.312	0.037	0.778	413	FS	R	73	2	Blue Range	1000
898.017	10503723	723		0.144	0.070	-0.058	-0.720	1.019	458	FS	R	S1702	1	Rubicon	
898.018	10508818	818		0.187	-0.285	-0.234	-1.105	0.959	411	FS	T	20	2	Toorongo Plateau	880
898.019	10506939	939		0.256	0.073	-0.166	-0.605	1.025	420	FS	R	1107	2	Tweed Spur	970
898.020	10601610	610		0.060	0.439	0.076	-1.117	1.751	443	FS	T	S44	1	St Gwinear	900
898.021	10601658	658		0.227	0.080	-0.147	-0.782	1.169	452	FS	T	S41	1	Mt St Gwinear	1175
898.022	10609867	867	13	0.248	0.413	0.090	-0.498	1.497	412	FS	T	111	2	Mt St Gwinear	1175
898.023	10610060	60		-0.035	0.033	0.144	-1.102	1.210	450	FS	R	100	2	Toolangi	610
898.024	10607953	953		0.214	0.184	-0.024	-0.403	0.991	418	FS	M	1149	2	Connors Plain	1260
898.025	10608820	820		0.164	0.317	0.199	-0.364	1.209	424	FS	T	25	2	Mt Horsfall	701
898.026	10902713	713		0.209	0.148	-0.013	-0.578	1.131	393	FS	T	S2683	1	Mt Erica	1000
898.027	11101609	609		0.079	0.055	0.082	-0.413	0.708	393	FS	T	S51	1	St Gwinear	900
898.028	11103720	720		0.169	0.280	0.084	-0.396	1.099	429	FS	R	S1699	1	Rubicon	
898.029	11103682	682		0.116	0.236	0.168	-0.762	1.399	424	FS	R	S1705	1	Rubicon	
898.030	11108045	45		0.345	-0.062	-0.200	-0.433	0.862	454	FS	T	15	2	Starling Hill, Powelltown	962

Ortet No.	Tree Location (Rep,ser,code)	Code	Related	DBH	STR	BRH	PIL	Grwth/Pil	Density	Selection	Origin	Parent Code	Generation	Provenance	Alt
898.031	11105684	684		0.109	0.059	0.165	-0.518	0.960	389	FS	T#	S2648	2	Gwinear	900
898.032	11207048	48		-0.122	0.203	0.281	-0.932	1.172	469	FS	M	80	2	Conners Plain	1310
898.033	11205693	693		0.038	0.177	0.146	-0.959	1.359	396	FS	T#	S1637	2	Gwinear	900
898.034	11008104	104	13	0.055	0.238	0.137	-0.679	1.164	413	FS	T	111	2	Mt St Gwinear	1175
898.035	11205950	950		0.240	0.048	-0.183	-0.374	0.719	451	FS	SN	1168	2	Nimmitabel	1220
898.036	11205931	931		0.257	-0.007	-0.024	-0.370	0.853	450	FS	T	1301	2	Little Boys Ck	1045
898.037	11006697	697		0.376	-0.003	-0.331	-0.587	1.005	409	FS	R#	S1648	2	Toolangi	610
898.038	11410813	813		0.362	0.275	0.087	0.049	1.038	408	FS	R	12	2	Cathedral Range	1036
898.039	11407948	948		0.191	0.255	0.099	-0.157	0.892	392	FS	M	1197	2	Spring Hill	1240
898.040	11308053	53		0.073	-0.051	-0.059	-0.765	0.801	377	FS	T	90	2	Mt St Gwinear	1000
898.041	11202671	671		0.150	-0.066	-0.208	-1.051	1.078	461	FS	T	S379	1	Little Boys Ck	1045
898.042	11209883	883	3	0.093	0.368	0.225	-0.240	1.019	400	FS	T	30	2	Mt Erica	1067
898.043	11506928	928		0.385	0.029	-0.242	-0.660	1.218	431	FS	R	1333	2	Snobs Creek	920
898.044	11510827	827	5	-0.019	0.079	0.038	-1.303	1.381	489	FS	R	73	2	Blue Range	1000
898.045	11604117	117		0.035	0.397	0.463	-0.515	1.445	434	FS	NSW	4	2	Manapouri (see G. Milligan)	
898.046	11407043	43		-0.009	0.265	0.206	-0.294	0.747	419	FS	M	122	2	Conners Plain	1310
898.047	11609876	876		0.172	0.339	0.207	0.122	0.767	419	FS	T	26	2	Mt Horsfall	701
898.048	11609885	885		0.215	0.001	0.020	-0.268	0.720	415	FS	T	86	2	Mt St Gwinear	1175
898.049	11603688	688	15	0.094	0.076	0.167	-0.185	0.615	412	FS	R	S1701	1	Rubicon	
898.050	11610826	826	4	-0.138	0.394	0.341	-0.196	0.655	441	FS	R	70	2	Federation Range	1100
898.051	11302677	677		0.149	0.497	0.155	-0.245	1.194	499	FS	T	S31	1	Link Rd	900
898.052	11707833	833	7	0.068	0.230	0.117	-0.422	0.904	423	FS	M	79	2	Conners Plain	1310
898.053	11606902	902	17	0.205	0.004	-0.009	-0.634	1.040	413	FS	R	1272	2	Royston Dam	945
898.054	11703722	722	15	0.032	0.302	0.269	-0.971	1.606	481	FS	R	S1701	1	Rubicon	
898.055	11709856	856		0.059	0.023	0.147	-0.325	0.613	446	FS	T	116	2	Mississippi, Powellton	820
898.056	11509884	884	3	0.270	0.264	0.121	-0.257	1.184	444	FS	T	30	2	Mt Erica	1067
898.057	11801619	619		0.059	-0.254	-0.053	-1.173	0.982	422	FS	T	S2676	1	Mt Erica	1000
898.058	11802735	735		0.197	0.324	0.131	-0.158	1.008	438	FS	T	S2686	1	Mt Erica	1000
898.059	11806912	912		0.198	0.236	0.284	-0.231	1.147	426	FS	R	1284	2	Quartz Link Tra	1094
898.060	11904628	628		0.360	0.020	-0.128	0.217	0.395	383	FS	M	S2719	1	Macalister	600

Table 2 cont.

Ortet No.	Tree Location (Rep,ser,code)	Code	Related	DBH	STR	BRH	PIL	Grwth/Pil	Density	Selection	Origin	Parent Code	Generation	Provenance	Alt
898.061	11702699	699		0.136	0.141	0.195	-0.572	1.180	431	FS	T	S2690	1	Mt Erica	1000
898.062	11702712	712		-0.026	0.579	0.378	0.005	0.901	428	FS	T	S2682	1	Mt Erica	1000
898.063	11710830	830	6	0.063	0.229	0.157	-0.623	1.134	432	FS	R	77	2	Blue Range	1000
898.064	11908070	70		-0.147	0.333	0.244	-0.905	1.187	426	FS	-	-	1	Waiouru - ammenity planting	900
898.065	12110044	44	12	0.016	0.229	0.276	-0.970	1.507	417	FS	R	103	2	Royston Road	975
898.066	12107936	936		0.120	0.189	0.088	-0.640	1.157	476	FS	M	1360	2	White Star Mine	1200
898.067	12206903	903		0.117	0.226	0.072	-0.467	0.999	434	FS	R	1297	2	Tweed Spur	957
898.068	12201607	607		-0.057	0.574	0.305	-0.497	1.262	432	FS	T	S48	1	St Gwinear	900
898.069	12306952	952		0.184	0.271	0.082	-0.636	1.356	438	FS	R	1104	2	Tweed Spur	970
898.070	12307942	942		0.034	0.052	0.159	-0.559	0.837	421	FS	M	1153	2	Mt Skene	1150
898.071	12310894	894		0.254	0.101	-0.029	-0.544	1.125	426	FS	R	71	2	Blue Range	1000
898.072	12304716	716		0.115	0.043	0.187	-0.907	1.367	474	FS	M	S2723	1	Macalister	600
898.073	12302675	675		0.162	-0.053	-0.131	-1.005	1.146	439	FS	T	S381	1	Mississippi	820
898.074	12705873	873	7	-0.153	0.235	0.344	-0.364	0.637	408	FS	M	79	2	Conners plain	1310
898.075	12205069	69		-0.079	0.127	0.445	-0.464	0.877	425	FS	-	-	1	Waiouru - ammenity planting	900
898.076	12407920	920		0.063	0.394	0.268	-0.558	1.345	427	FS	M	1376	2	Mt Shillinglaw	915
898.077	12404648	648		0.056	0.125	0.133	-0.906	1.276	400	FS	M	S2713	1	Macalister	600
898.078	12406921	921		0.080	0.181	0.263	-0.507	1.110	429	FS	R	1388	2	Con Gap Rd/Snob	937
898.079	12002714	714		0.040	0.347	0.225	-0.663	1.315	407	FS	T	S2684	1	Mt Erica	1000
898.080	12410115	115		0.100	0.145	0.157	-0.081	0.584	443	FS	R	97	2	Toolangi	610
898.081	12409896	896	2	0.221	0.503	0.198	0.026	1.118	437	FS	T	24	2	Mt Horsfall	701
898.082	12409875	875		-0.100	0.202	0.193	-0.857	1.050	478	FS	T	84	2	Mt St Gwinear	1175
898.083	12505683	683		-0.038	0.192	0.181	-0.858	1.154	472	FS	T#	S1638	2	Noojee	960
898.084	12505960	960		0.158	0.341	0.178	0.000	0.834	414	FS	T	1429	2	Little Boys Creek	1030
898.085	12502700	700		-0.060	0.259	0.212	-0.888	1.240	410	FS	T	S2693	1	Mt Erica	1000
898.086	12606955	955		0.128	-0.022	0.074	-0.250	0.558	418	FS	R	1110	2	Tweed Spur	1020
898.087	12609897	897	8	0.208	-0.037	0.072	-0.868	1.320	454	FS	T	82	2	Mt Erica	1067
898.088	12510062	62	4	0.294	0.418	-0.108	-0.139	1.037	420	FS	R	70	2	Federation Range	1100
898.089	12510113	113	1	0.195	0.022	0.031	-0.314	0.758	413	FS	R	9	2	Mt Torbeck	729
898.090	12602715	715		0.055	0.101	-0.007	-0.902	1.107	434	FS	T	S2685	1	Mt Erica	1000

Table 2 cont.

Ortet No.	Tree Location (Rep,ser,code)	Code	Related	DBH	STR	BRH	PIL	Grwth/Pil	Density	Selection	Origin	Parent Code	Generation	Provenance	Alt
898.091	10903604	604		0.186	0.193	-0.026	-0.964	1.503	484	FS	R	S89	1	MMBW Rd	1000
898.092	10901880	880	7	0.015	0.301	0.469	-1.038	1.839	499	FS	M	79	2	Conners Plain	1310
898.093	10709891	891		0.223	-0.028	0.019	-0.482	0.920	451	FS	T	113	2	Mt Erica	1067
898.094	10801608	608		0.075	0.379	0.256	-1.201	1.986	496	FS	T	S49	1	St Gwinear	900
898.095	11703718	718		0.152	0.278	0.263	0.028		420	FS	R	S1706	1	Rubicon	
898.096	12210055	55	1	0.046	0.240	-0.053	-1.186	1.465	459	FS	R	9	2	Mt Torbreck	729
898.097	12609854	854		0.076	0.201	0.067	-0.627	1.047	464	FS	T	114	2	Mt Erica	1067
898.098	12609847	847	11	0.137	0.265	0.114	-0.402	1.056	423	FS	T	101	2	Toolangi	610
898.099	12603727	727		0.062	0.343	0.093	-0.532	1.093	457	FS	R	S1711	1	Rubicon	
898.100	12603678	678		0.233	0.075	-0.099	-0.749	1.191	427	FS	R	S1709	1	Rubicon	
898.101	12706913	913		0.170	0.215	0.148	-0.363	1.065	436	FS	R	1252	2	Snobs Creek	937
898.102	12709851	851	13	0.160	0.182	0.056	-0.673	1.231	443	FS	T	111	2	Mt St Gwinear	1175
898.103	12709866	866	9	0.138	0.274	0.021	-0.618	1.189	485	FS	T	85	2	Mt St Gwinear	1175
898.104	12808816	816		0.094	-0.033	0.040	-0.624	0.818	420	FS	T	16	2	Starling Hill, Powelltown	762
898.105	12810861	861		0.110	0.061	-0.031	-0.695	0.946	439	FS	M	121	2	Conners Plain	1310
898.106	12804717	717		0.114	0.289	0.153	-0.578	1.247	449	FS	M	S2724	1	Macalister	600
898.107	12810888	888		0.065	0.164	0.073	-0.709	1.075	412	FS	R	14	2	Cathedral Range	1036
898.108	12903067	67		-0.035	0.290	0.372	0.415	0.176	421	FS	-	-	1	Waiouru - ammenity planting	900
898.109	12905708	708		0.035	0.271	0.221	-0.215	0.776	447	FS	T#	S2649	2	Gwinear	900
898.110	12906943	943		0.040	-0.179	-0.004	-0.522	0.419	454	FS	R	1124	2	Barnawall Plain	1180
898.111	12908050	50		0.283	0.167	0.112	0.165	0.679	400	FS	T	27	2	Mt Horsfall	701
898.112	13010046	46	6	-0.028	0.260	0.086	0.134	0.156	402	FS	R	77	2	Blue Range	1000
898.113	12202737	737		0.192	0.061	-0.148	-0.256	0.553	414	FS	T	S2689	1	Mt Erica	1000
898.114	12403724	724		0.094	0.285	0.309	0.059	0.723	416	FS	R	S1703	1	Rubicon	
898.115	12003729	729		0.033	0.441	0.469	-0.024	1.000	375	FS	R	S1697	1	Rubicon	
898.116	11408823	823		0.182	-0.024	-0.131	-0.136	0.344	413	FS	T	29	2	Mt Erica	1067
898.117	11609892	892	8	0.208	0.225	0.078	0.015	0.703	394	FS	T	82	2	Mt Erica	1067
898.118	10904730	730		0.341	0.250	0.184	0.056	1.059	377	FS	R	S1696	1	Rubicon	
898.119	10701612	612		0.078	-0.138	-0.182	-0.723	0.559	424	FS	T	S53	1	St Gwinear	900
898.120	10705961	961		0.188	0.135	0.242	-0.308	1.062	418	FS	T	1421	2	Newlands Rd	1070
898.121	11102710	710		-0.195	0.081	0.039	-1.465	1.196	443	FS	T	S2679	1	Mt Erica	1000
898.122	10706957	957		0.277	0.256	0.196	-0.259	1.264	387	FS	R	1412	2	Mt Torbreck	1158
898.123	10909889	889	2	0.090	0.361	0.192	-0.286	1.018	412	FS	T	24	2	Mt Horsfall	701

***Eucalyptus nitens* Clonal Breeding Archive - Waiouru**
NSW grafts, planted 2000

Ortet No.	Location		Provenance
890-1	Cpt 905 Kaingaroa		Parkers Gap
4	Cpt 905 Kaingaroa		Nimmitabel
17	Maire Rd, Kinleith		Barrington Tops
20	Maire Rd, Kinleith		Barrington Tops
24	Fergusens Farm, Reefton		Nimmitabel
32	Fergusens Farm, Reefton		Nimmitabel
35	Fergusens Farm, Reefton		Nimmitabel
37	Fergusens Farm, Reefton		Nimmitabel
38	Fergusens Farm, Reefton		Nimmitabel
899-201	Cpt 80 Rotoehu	Provenance trial FR183/1	Brown Mtn, Nimmitabel
202	Cpt 80 Rotoehu	Provenance trial FR183/2	Brown Mtn, Nimmitabel
203	Cpt 80 Rotoehu	Provenance trial FR183/3	Badja
204	Cpt 80 Rotoehu	Provenance trial FR183/4	Badja
205	Cpt 80 Rotoehu	Provenance trial FR183/5	Southern NSW Seedlot No. 88/166
206	Cpt 80 Rotoehu	Provenance trial FR183/6	Tallaganda, Mt Anembo
207	Cpt 80 Rotoehu	Provenance trial FR183/7	Southern NSW
208	Cpt 80 Rotoehu	Provenance trial FR183/8	Brown Mtn, Nimmitabel
209	Cpt 80 Rotoehu	Provenance trial FR183/9	Majors Point, NNSW
210	Cpt 80 Rotoehu	Provenance trial FR183/10	Barren Mtn
211	Cpt 80 Rotoehu	Mass Selection planting FR182/1	SNSW
212	Cpt 80 Rotoehu	Mass Selection planting FR182/2	SNSW
213	Cpt 80 Rotoehu	Mass Selection planting FR182/3	SNSW
214	Cpt 80 Rotoehu	Mass Selection planting FR182/4	SNSW
215	Cpt 80 Rotoehu	Mass Selection planting FR182/5	SNSW
216	Cpt 80 Rotoehu	Mass Selection planting FR182/6	SNSW
217	Cpt 80 Rotoehu	Mass Selection planting FR182/7	SNSW
218	Cpt 80 Rotoehu	Mass Selection planting FR182/8	SNSW

ESK FOREST

Pan Pac Forests Ltd

TRIAL DESCRIPTION SHEET

FOREST OWNER: Pan Pac Forests Ltd

EXPT. No.: **FR 374/1**

FOREST: Esk Forest

CPT.: 42.06

CONTACT PERSON: Brian Garnnet

PHONE: 06 835 5463

FAX: 06 835 9288

CONTROLLING AGENCY: *Forest Research*

WORK PLAN #: 3017 **PROJECT:** 44/17 **FRI CORR. File:**

PURPOSE: Test the performance of provenances of *Eucalyptus globulus* and *subspps*

SITE DETAILS:

LATITUDE: 39°15′ **LONGITITUDE:** 176°45′

ALTITUDE: 350m **ASPECT:** N **SLOPE:** <10°

GROUND PREPARATION: Spot mounding

SOIL TYPE:

PREVIOUS USE: Ex - *P.radiata*

EXPERIMENTAL DETAILS:

SPECIES: *E.globulus and subspps* **STOCK:** Containerised **DATE PLANTED:** July1999

 # OF PLOTS: 35 **SIZE OF PLOTS:** 21m x 24.5m **SPACING:** 3.0m x 3.5m

TOTAL AREA: **1.8 ha** **DEMARCATION:** Numbered posts

EXPERIMENTAL DESIGN:

Completely randomised blocks with non-contiguous plots

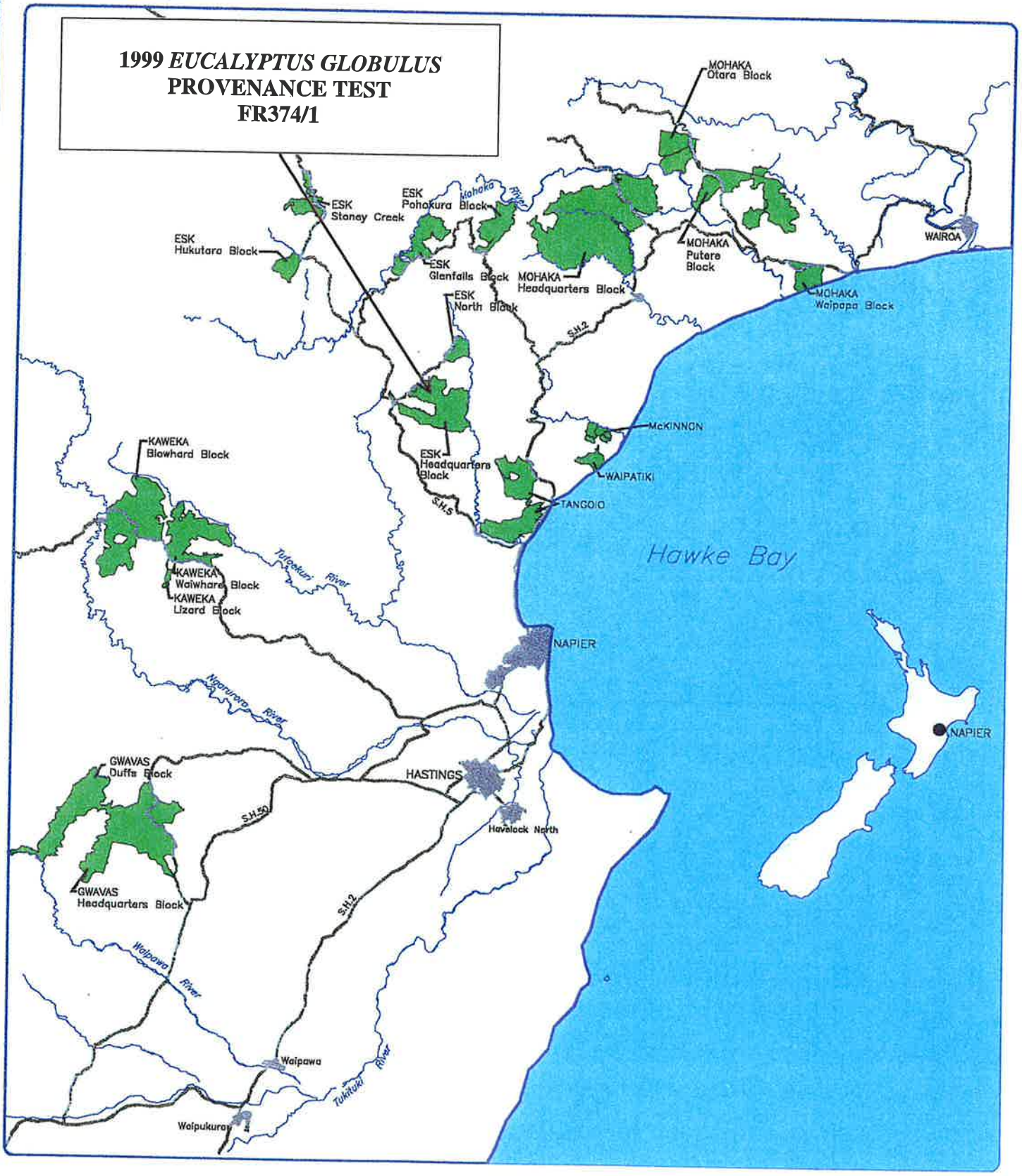
PROPOSED TREATMENT:
Weed free for first 2 years

PROPOSED YEARS OF ASSESSMENT: 2003 **PERMANANCY:** 20 years

ATTACHMENTS: Location map
Plot map
Tree position map
Subspp/provenance listing

PAN PAC
FOREST PRODUCTS LIMITED

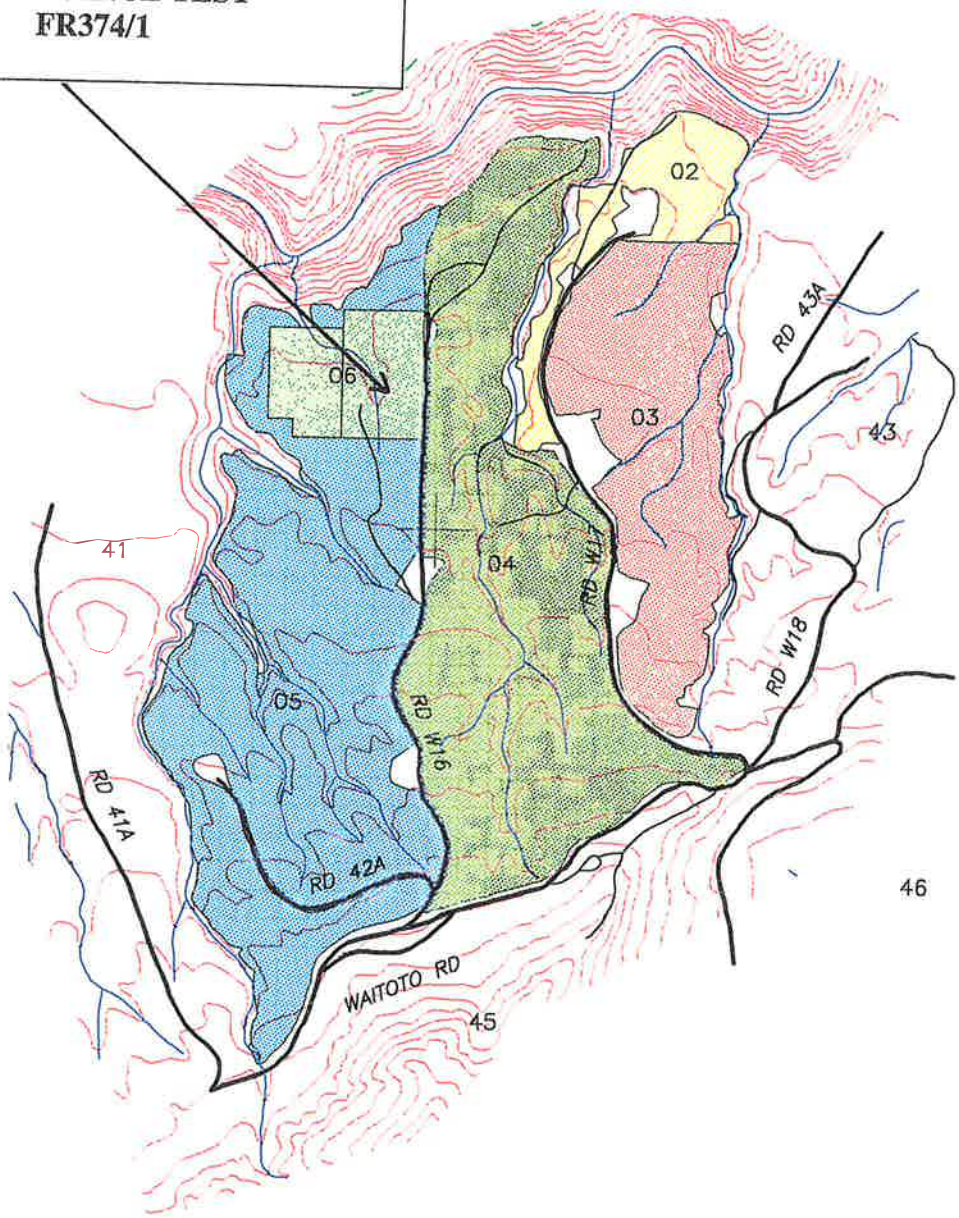
PLANTATION FORESTS HAWKE'S BAY



ESK FOREST

Cpt 42

1999 *EUCALYPTUS GLOBULUS*
PROVENANCE TEST
FR374/1



6210000 mN NZMG

2836000 mE

STANDS

02	P.radiata	1994	3.2 ha
03	P.radiata	1994	10.1 ha
04	P.radiata	1996	20.0 ha
05	P.radiata	1997	21.2 ha
06	Spp.& clonal Trial	1999	3.1 ha

02,03 Remapped 8/99

Scale 1 : 10000

2nd Rotation

TITLE: **1999 *EUCALYPTUS GLOBULUS* PROVENANCE TRIAL**
LOCATION: **COMPARTMENT 42.06, ESK FOREST, HAWKES BAY**
FOREST OWNER: **PAN PAC FOREST PRODUCTS LTD**
ESTABLISHMENT DATE: **JULY 1999** SPECIES: ***E. GLOBULUS***
PLANTED AREA: **1.54 HA** PLANTED STEMS: **1715** TRIAL NUMBER: **FR374/1**
MAP NUMBER: **600** DRAWN BY: **DC MAIKA** DATE: **27 JULY 1999**
CONTACT: **TARGETED SPECIES FOR GLOBAL OPPORTUNITIES** PHONE: **(07) 347-5899**

forest research
creative wood-based solutions

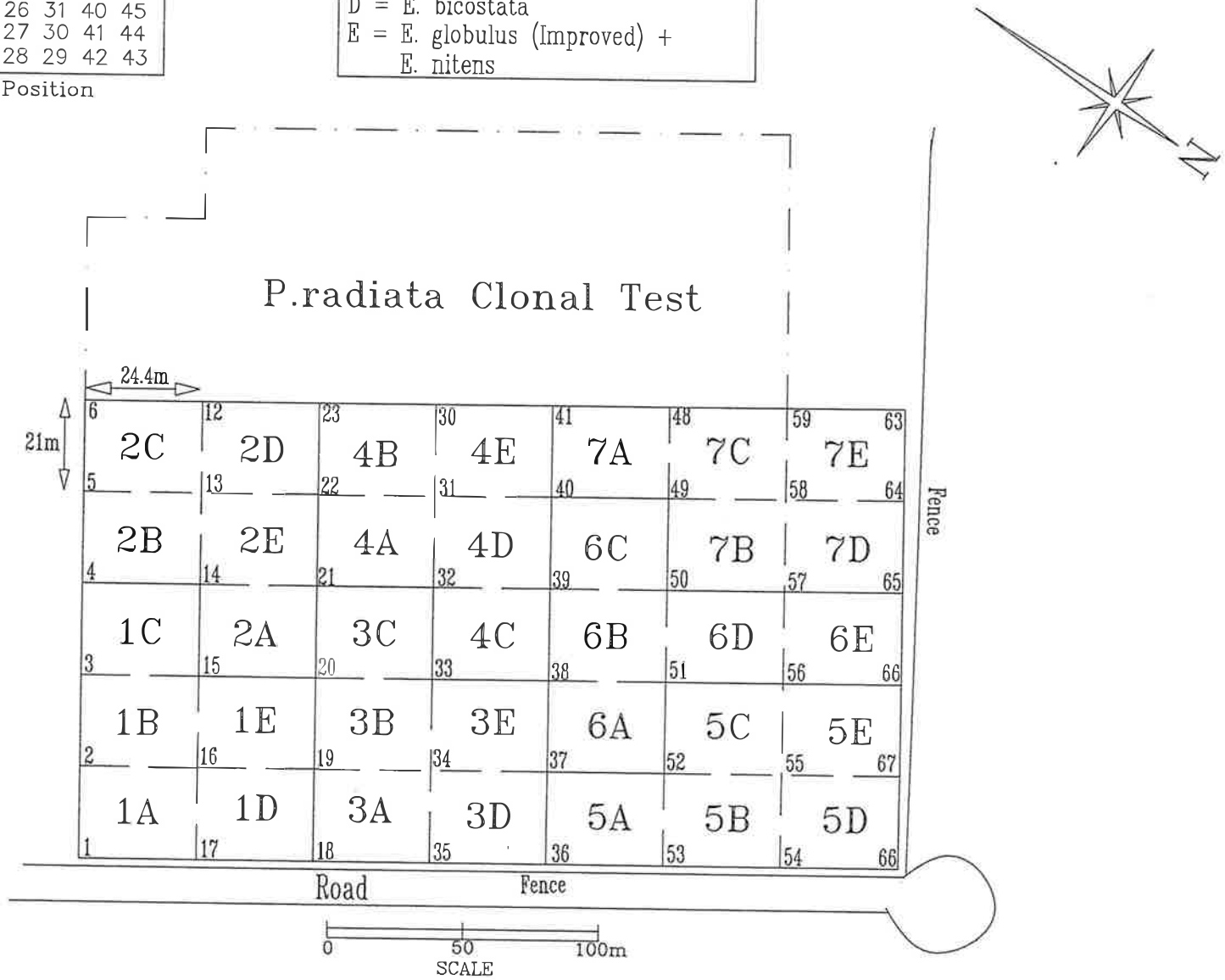
7	8	21	22	35	36	49
6	9	20	23	34	37	48
5	10	19	24	33	38	47
4	11	18	25	32	39	46
3	12	17	26	31	40	45
2	13	16	27	30	41	44
1	14	15	28	29	42	43

Tree Position

KEY

1A = Rep 1, Group A

Group Description
A = E. globulus
B = E. globulus + E. pseudoglobulus
C = E. maidenii
D = E. bicostata
E = E. globulus (Improved) + E. nitens



1999 E.globulus Provenance Trial
Individual-tree-position Map at Esk (Hawkes Bay)
Replication 1 to 7

6	2C	12	2D	23	4B	30	4E
	415 -7 519 314 313 516 418		325 428 192 493 327 526 223		708 721 305 420 603 401 121		132 433 332 535 529 634 231
	319 717 218 617 414 613 616		592 426 227 628 693 123 725		205 403 201 608 207 321 508		230 134 633 430 596 429 589
	413 615 514 518 219 315 117		726 127 423 792 225 193 728		221 320 503 101 108 407 601		997 435 629 298 531 632 434
	316 318 213 119 515 517 214		523 593 425 527 492 228 126		620 501 408 107 521 705 703		129 331 130 234 533 698 232
	118 719 116 215 217 714 113		128 692 626 535 623 727 -8		203 208 307 421 505 720 605		334 630 235 233 198 431 631
	114 513 417 216 718 419 715		393 125 328 723 426 292 627		701 607 621 405 520 303 220		498 532 635 432 330 335 133
	317 614 115 713 716 618 619		427 323 293 326 528 625 392		707 105 120 103 301 308 507		135 398 131 329 229 333 930
5	2B	13	2E	22	4A	31	4D
	405 708 520 505 207 303 201		230 631 198 335 133 234 529		409 310 112 411 602 704 706		326 493 327 323 425 629 526
	101 721 208 503 120 607 621		132 134 629 298 698 997 431		302 404 210 109 506 611 712		392 -8 226 293 692 626 727
	107 103 121 408 501 105 620		329 635 630 232 531 596 433		212 209 211 106 510 702 504		528 128 292 126 523 225 723
	403 521 701 420 205 108 307		634 432 535 533 430 331 -9		110 402 309 312 604 606 711		127 725 123 393 228 427 792
	320 507 703 305 421 601 308		398 233 334 231 129 235 130		311 412 406 204 609 610 502		125 426 728 492 527 793 193
	608 220 707 301 203 321 605		435 330 632 229 532 333 434		306 111 304 202 612 709 710		593 592 525 628 623 623 325
	221 401 705 407 508 720 603		131 498 633 530 135 429 332		104 206 102 410 511 512 509		423 693 625 192 227 428 223
4	1C	14	2A	21	3C	32	4C
	314 418 513 517 119 215 216		404 112 409 406 610 502 510		115 616 613 614 119 517 217		416 317 613 718 315 119 314
	217 616 114 615 518 419 313		310 306 211 202 604 709 712		518 114 717 215 516 219 515		213 515 514 717 419 518 616
	716 515 218 713 617 514 719		111 411 102 312 509 506 704		416 417 615 619 513 418 319		615 316 319 517 513 614 418
	113 219 516 414 715 317 618		402 410 412 104 706 710 609		419 713 714 117 618 715 216		719 413 118 115 414 617 716
	118 717 319 416 214 613 315		212 302 204 309 611 511 606		317 218 716 213 315 414 314		117 218 415 114 216 313 619
	519 614 415 318 213 116 417		106 109 210 311 612 504 702		214 519 118 316 617 413 113		214 219 417 713 318 516 715
	115 413 117 619 316 718 714		209 304 206 110 602 512 711		313 415 719 318 514 116 718		618 714 116 519 217 215 113
3	1B	15	1E	20	3B	33	3E
	103 120 208 105 521 101 108		229 598 530 234 431 632 135		421 708 405 120 201 203 707		629 233 630 531 235 498 596
	420 505 207 421 507 303 401		130 132 498 625 433 131 233		607 501 121 505 703 220 508		632 635 133 334 997 329 232
	621 107 403 608 701 705 520		334 331 235 633 532 329 596		605 507 520 603 208 401 521		434 298 132 330 129 431 533
	201 203 221 720 603 708 407		231 129 432 430 634 398 435		301 320 108 307 305 621 503		135 134 231 398 130 333 529
	607 408 620 301 205 721 405		335 333 531 629 198 630 298		308 303 207 321 720 105 701		633 131 229 435 234 530 631
	605 121 601 707 508 320 503		533 230 529 698 252 134 631		103 205 601 608 721 107 420		230 432 598 332 331 532 335
	308 501 305 703 220 307 321		997 332 434 232 429 133 330		620 221 403 101 407 408 705		198 430 634 429 433 535 698
2	1A	16	1D	19	3A	34	3D
	102 412 210 109 604 611 704		623 393 327 525 292 228 226		304 412 309 406 511 702 610		192 525 126 623 127 528 794
	112 104 311 406 709 702 510		293 125 723 728 626 227 427		310 206 211 204 604 709 512		326 728 727 193 123 592 225
	409 106 312 411 710 504 502		725 328 693 192 727 225 223		111 110 302 402 609 706 704		627 492 723 125 693 526 328
	404 209 202 110 606 512 511		126 428 392 323 325 423 -9		102 311 312 112 506 510 509		593 327 325 692 628 323 326
	211 302 306 204 612 610 609		592 426 528 127 193 -9 425		212 202 404 209 710 611 606		423 426 493 128 725 427 792
	206 410 304 402 711 509 712		527 123 726 794 128 526 792		306 109 410 411 712 504 502		228 293 292 227 626 625 523
	310 111 309 212 602 506 706		628 492 625 326 523 692 -9		409 104 106 210 602 612 711		525 223 428 276 392 393 527
1		17		18		35	

41	7A	48	7C	59	7E	63	
	410 409 406 411 604 602 512		713 415 116 619 417 114 615		432 629 334 230 698 235 229		
	312 311 302 404 510 509 606		414 119 113 718 115 217 618		635 132 630 533 332 198 133		
	104 202 212 209 711 706 710		617 218 614 416 719 215 216		431 333 632 429 530 129 130		
	309 612 304 106 702 610 611		516 717 118 315 214 213 613		234 335 529 131 433 322 596		
	111 306 210 402 609 712 504		419 513 515 514 316 518 319		498 434 233 532 631 329 535		
	102 310 211 412 506 704 709		715 716 117 313 318 219 517		598 430 135 398 997 231 232		
	206 204 109 110 112 511 502		418 314 519 317 413 616 714		330 298 531 634 435 633 331		
40	6C	49	7B	58	7D	64	
	718 514 615 613 619 217 116		120 508 505 607 221 103 420		792 628 226 426 727 593 525		
	316 317 319 114 518 215 513		207 620 608 503 301 521 208		493 523 427 425 428 526 327		
	113 115 318 617 416 119 214		501 321 303 605 528 520 203		326 192 228 127 123 125 728		
	515 216 714 218 717 213 719		708 205 201 -8 403 407 621		227 126 625 723 193 928 692		
	417 418 713 519 314 516 715		105 701 421 108 307 320 707		623 627 392 293 325 794 726		
	614 419 716 315 413 118 117		703 507 220 121 705 401 720		238 725 492 592 626 323 693		
	219 313 517 616 415 414 618		721 603 107 101 408 405 601		225 393 223 128 292 527 423		
39	6B	50	6D	57	6E	65	
	708 521 201 607 705 420 403		392 393 323 128 226 627 225		431 430 332 298 129 135 631		
	303 508 620 601 207 621 405		293 725 593 192 227 423 328		234 133 535 229 532 598 633		
	501 707 703 608 121 305 320		427 223 127 425 592 426 794		533 997 629 596 630 331 232		
	505 503 421 720 101 408 307		325 729 728 727 693 525 626		435 329 131 330 433 432 634		
	507 205 208 321 220 103 401		723 327 526 193 528 292 523		498 231 434 333 235 230 635		
	721 120 107 605 603 301 308		228 628 625 326 623 493 692		132 335 698 531 322 529 530		
	520 701 105 203 108 407 221		126 726 492 123 125 428 527		429 334 130 632 198 233 398		
38	6A	51	5C	56	5E	66	
	111 202 206 104 510 609 612		119 616 215 117 114 718 113		498 431 430 333 632 434 435		
	406 110 404 402 509 512 711		418 313 419 615 217 716 414		529 232 433 135 231 630 298		
	109 306 412 411 604 702 610		515 118 717 314 413 619 416		130 635 229 332 335 132 596		
	204 309 302 210 712 511 706		316 514 318 319 315 213 317		634 233 398 129 230 235 631		
	212 304 311 106 602 710 709		417 219 714 613 516 115 518		131 530 997 198 234 633 429		
	410 211 409 312 506 504 502		713 617 216 218 519 214 415		535 639 134 330 598 331 133		
	102 112 310 209 611 606 704		614 715 513 116 618 517 719		432 698 531 334 325 329 532		
37	5A	52	5B	55	5D	67	
	111 402 104 309 510 512 606		601 405 403 707 108 420 321		392 427 593 425 326 328 623		
	410 211 312 404 506 602 509		208 120 501 621 207 603 205		125 192 527 423 428 193 226		
	412 304 306 210 702 609 711		620 607 505 305 203 121 508		393 528 626 227 725 723 292		
	406 310 202 212 709 511 704		407 303 708 503 721 701 520		628 426 523 293 492 625 727		
	209 206 311 102 604 610 712		105 608 521 401 220 107 301		223 525 592 526 493 127 728		
	302 112 409 106 611 504 710		221 201 307 720 705 308 703		627 693 128 792 323 726 325		
	204 109 110 411 612 706 502		103 421 320 408 101 605 507		126 123 225 228 327 692 794		
36		53		54		68	

1999 *E. globulus* subspecies provenance trial

Subspecies Groups	Field Code	Subspecies	Provenance
Group 1	2	*globulus*	Brunny Island (CSIRO N°18726)
A	6		Clarke (NFP)
	4		Geeveston (CSIRO N°18723)
	9		East Coast North (NFP)
	10		East Coast Central (NFP)
	11		East Coast South Central (NFP)
	12		West Coast Central (NFP)
Group 2	3	*globulus*	King Island (NFP)
	5		Flinders (NFP)
B	7		Otway Ranges (NFP)
	8		South Gippsland (NFP)
	1		Jeeralang North (CSIRO N° 16319)
	20	*pseudoglobulus*	Wiebens (CSIRO N°18111)
	21		Cann River (CSIRO N°19470)
Group 3	13	*maidenii*	Bolaro Mt. (CSIRO N°18728)
C	14		Bondi S.F. (CSIRO N°19454)
	15		Belowra (CSIRO N°19456)
	16		Myrtle Mt. (CSIRO N°19458)
	17		Yambulla S.F. (CSIRO N°19284)
	18		Tantawanglo (CSIRO N°19460)
	19		Eden (AMCOR N°3499)
Group 4	22	*bicostata*	Canberra (AMCOR N°239)
D	23		Burrinjuck (AMCOR N°242)
	24		Tumbarumba (AMCOR N°238)
	25		Wollemi (AMCOR N°243)
	26		Benalla (AMCOR N°244)
	27		Kiewa (AMCOR N°235)
	28		Mansfield (AMCOR N°245)
Group 5	29	*globulus*	Jeeralang (single mother tree)
	30	(improved)	Jeeralang (single mother tree)
E	31		S. Geeveston (single mother tree)
	32		W.Coast Tasmania, Hently River (Single Mother Tree)
	33		Mix of seed 17 mothers from 8 provenances *
	34	*nitens*	*E. nitens* C. Victoria (Toorongo 16869)
	35		*E. nitens* NSW
	36		E.nitens Waikuku

* It includes genetic material from: Flinders Island, Seymour, Henly River, Leprena, King Island, Bruny Island, and Otways.

1999 *E. globulus* subspecies provenance trial

Composition of the bulked provenances of provided by North Eucalypt Technologies

GROUP No.	GEO-REGION (Bulked Provenance)	INDIVIDUAL PROVENANCES	No. families/ individual provenance	No. families in bulked provenance
3	King Island	Central King Island South King Island	14 1	15
5	Flinders Island	North. Flinders Island Central Flinders Island Central-North Flinders Island South Flinders Island	9 14 8 11	42
6	Clarke Island	Clarke Island N. Clarke Island West Clarke Island	3 10 28	41
7	Otway Ranges	Cannan Spur Cape Patton Jamieson Creek Lorne Otway State Forest Parker Spur South West Lavers Hill	21 18 7 27 41 56 5	175
8	South Gippsland	Bowden Road Jeeralang Madalya Road Port Franklin Hedley	5 3 6 4 7	25
9	Tasmania East Coast North	Pepper Hill Royal George St. Helens	10 10 10	30
10	Tasmania East Coast Central	Mayfield North Maria Island Triabunna	5 7 9	21
11	Tasmania East Coast South Central	Collinvale Hobart South Moogara	5 10 25	40
12	Tasmania West Coast Central	Badgers Creek Little Hently River Macquarie Harbour	7 10 4	21

MCKINNONS BLOCK

Pan Pac Forests Ltd

TRIAL DESCRIPTION SHEET

FOREST OWNER: Pan Pac Forests Ltd

EXPT. No.: FR 374/2

FOREST: McKinnons Forest

CPT.: 1082

CONTACT PERSON: Brian Garnnet

PHONE: 06 835 5463

FAX: 06 835 9288

CONTROLLING AGENCY: *Forest Research*

WORK PLAN #: 3017 **PROJECT:** 44/17 **FRI CORR. File:**

PURPOSE: Test the performance of provenances of *Eucalyptus globulus* and *subspps*

SITE DETAILS:

LATITUDE: 39°15′ **LONGITITUDE:** 177°

ALTITUDE: 0m **ASPECT:** N **SLOPE:** <10°

GROUND PREPARATION: Spot mounding

SOIL TYPE:

PREVIOUS USE: Ex - Pasture

EXPERIMENTAL DETAILS:

SPECIES: *E.globulus and subspps* **STOCK:** Containerised **DATE PLANTED:** July1999

 # OF PLOTS: 20 **SIZE OF PLOTS:** 21m x 24.5m **SPACING:** 3.0m x 3.5m

TOTAL AREA: **1.04 ha** **DEMARCATION:** Numbered posts

EXPERIMENTAL DESIGN:

Completely randomised blocks with non-contiguous plots

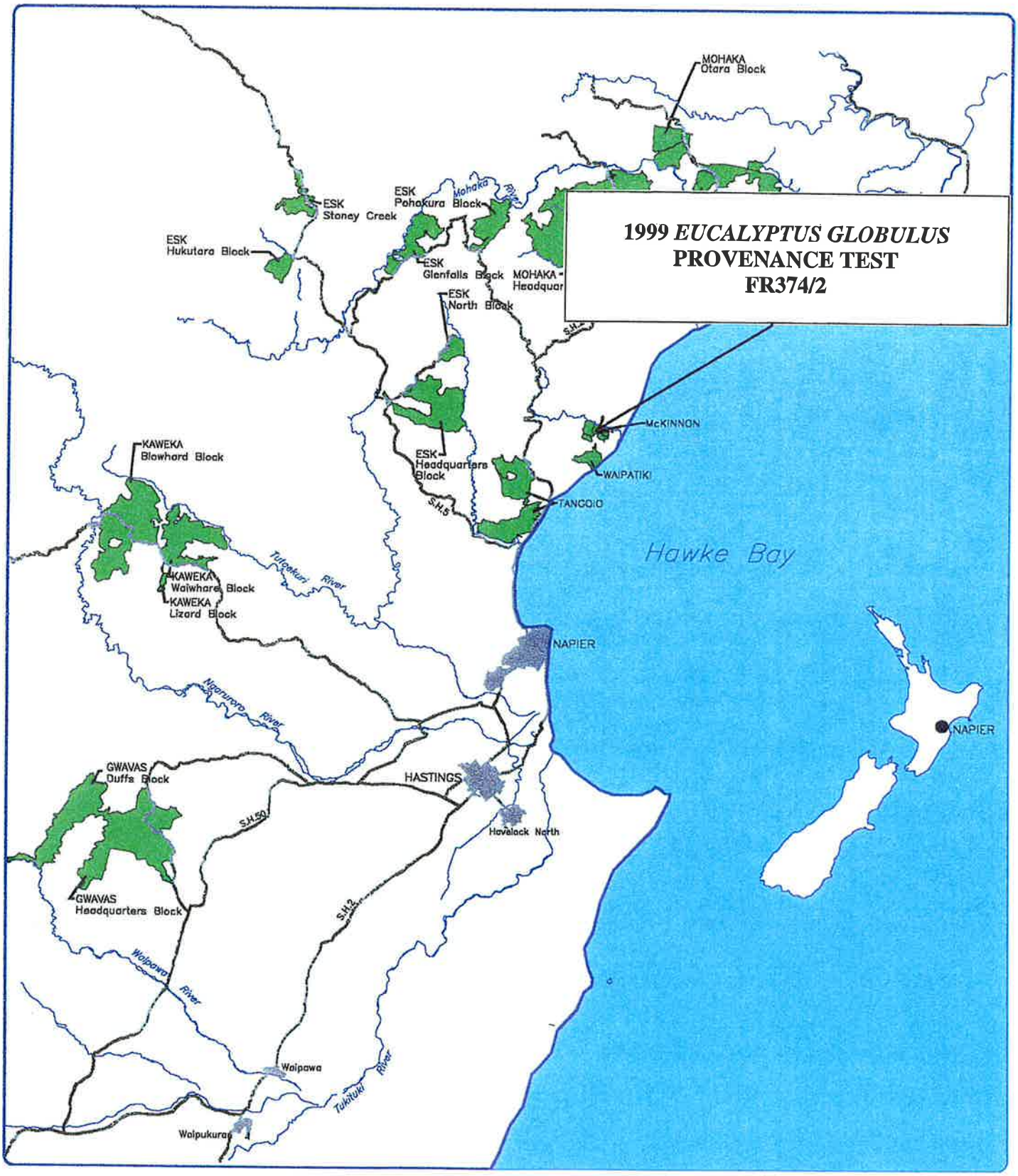
PROPOSED TREATMENT:
Weed free for first 2 years

PROPOSED YEARS OF ASSESSMENT: 2003 **PERMANANCY:** 20 years

ATTACHMENTS: Location map
Plot map
Tree position map
Subspp/provenance listing

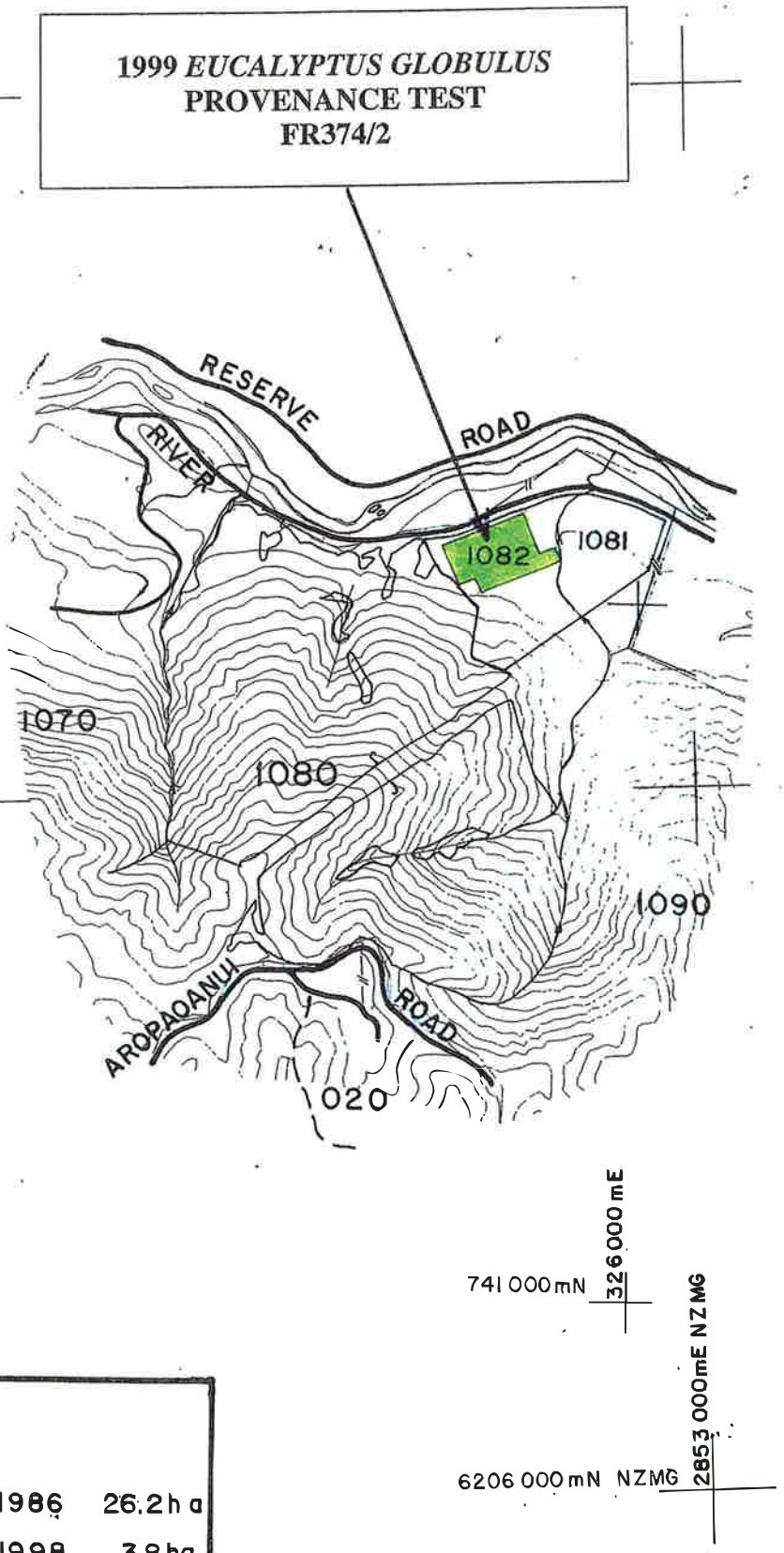
PAN PAC
FOREST PRODUCTS LIMITED

PLANTATION FORESTS HAWKE'S BAY



McKINNON FOREST

STDS 1080-1089



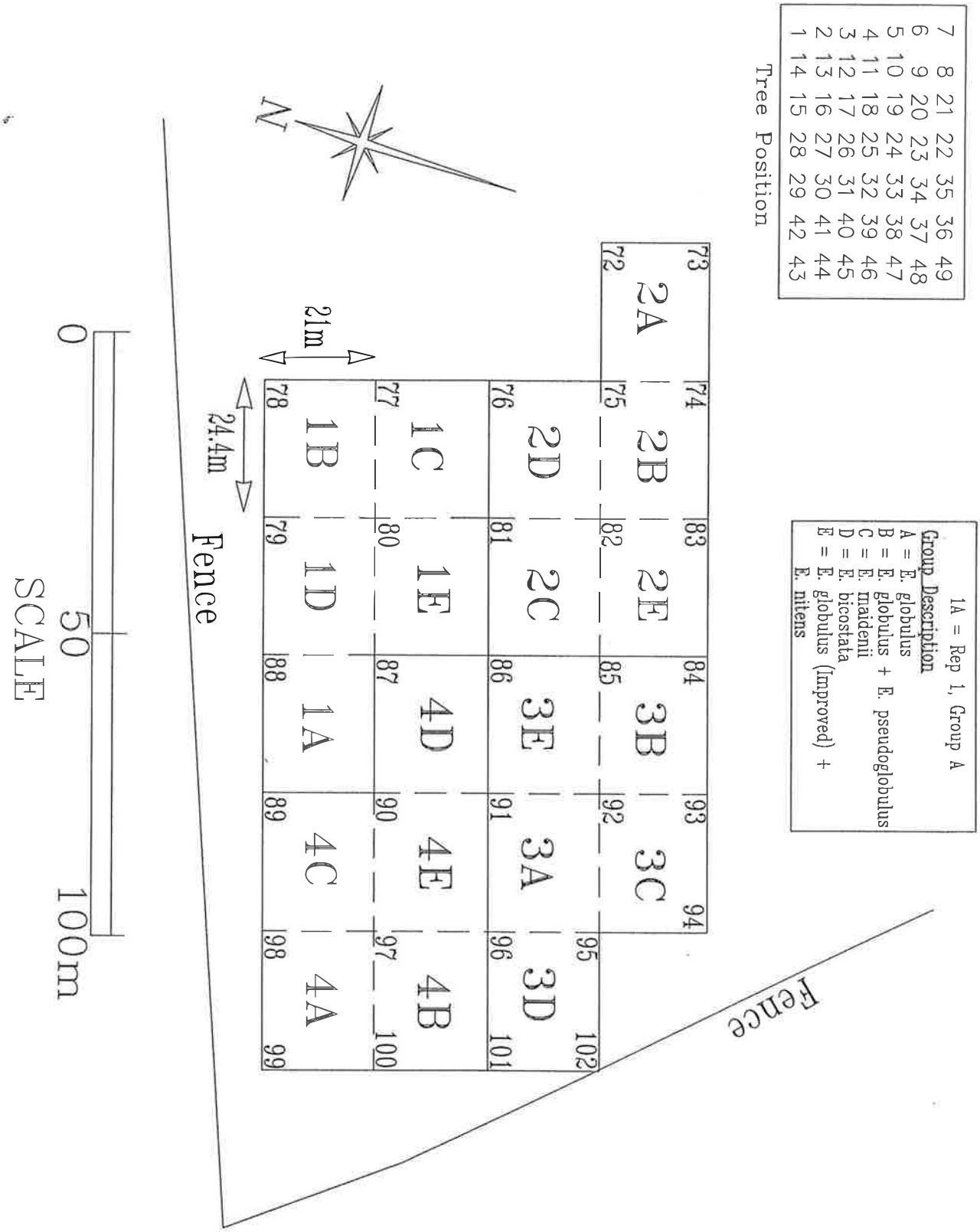
STANDS

1080	P. radiata	1986	26.2 ha
1081	P. radiata	1998	3.8 ha
1082	Euc. spp trial	1999	1.0 ha

Scale 1:10,000

Mapped 4/97 SCAP - 11/97 GWD

forest research creative wood-based solutions	TITLE: **1999 *EUCALYPTUS GLOBULUS* PROVENANCE TRIAL** LOCATION: **STAND 1082, MCKINNON FOREST, HAWKES BAY** FOREST OWNER: **PAN PAC FOREST PRODUCTS LTD** ESTABLISHMENT DATE: **JULY 1999** SPECIES: ***E. GLOBULUS*** PLANTED AREA: **0.88 HA** PLANTED STEMS: **980** TRIAL NUMBER: **FR374/2** MAP NUMBER: **601** DRAWN BY: **DC MAIKA** DATE: **27 JULY 1999** CONTACT: **TARGETED SPECIES FOR GLOBAL OPPORTUNITIES** PHONE: **(07) 347-5899**



1999 E.globulus Provenance Trial
Individual-tree-position Map at McKinnon (Hawkes Bay)
Replication 1 to 4

73	2A							74	2B							83	2E							84	3B							93	3C							94
	302	412	211	599	509	606	609		408	203	607	105	121	201	720		133	334	132	429	335	231	595		308	721	605	220	403	701	307		418	213	114	515	619	117	716	
	404	209	212	102	611	711	699		307	701	621	520	305	108	103		532	131	629	135	330	236	434		205	203	101	508	407	321	720		416	314	717	419	718	415	218	
	299	411	306	409	499	504	512		321	708	205	603	620	707	501		531	329	336	233	232	134	229		603	708	107	121	405	420	401		514	315	719	116	413	118	714	
	311	402	199	406	712	709	604		120	721	403	408	101	705	505		234	635	434	432	997	630	235		607	105	620	103	201	208	421		617	519	318	513	414	616	319	
	109	206	104	312	602	702	511		405	507	220	401	303	521	608		230	332	431	436	633	129	631		521	520	503	501	408	707	705		115	518	316	214	117	613	615	
	106	399	309	204	506	612	502		601	420	208	221	407	403	307		535	533	130	634	536	632	430		301	207	221	505	320	703	108		713	317	715	618	216	219	217	
	112	304	202	111	704	799	706		703	605	301	107	308	320	421		529	136	435	530	331	333	433		120	601	608	507	621	305	703		119	516	113	417	215	614	313	
72								75	2D							82	2C							85	3E							92	3A							95	3D							102
									191	126	223	727	425	690	628		114	519	616	513	415	317	718		633	132	436	232	530	529	135		412	302	111	204	712	680	499		125	427	523	690	628	126	391	
									723	390	527	626	691	228	625		217	518	413	614	119	215	416		635	630	429	531	433	234	536		304	212	202	380	711	681	712		291	726	627	528	425	490	723	
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									490	391	328	225	726	123	127		219	713	617	315	316	418	517		634	231	235	329	632	997	334		280	104	112	481	399	799	604		390	791	725	327	526	323	428	
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								76	1C							81	1E							86	4D							91	4E							96	4B							101
									513	315	616	519	217	214	518		333	135	136	230	131	632	229		326	628	123	391	427	325	390		233	234	235	336	532	331	596		703	120	407	505	121	101	701	
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								77	1B							80	1D							87	1A							90	4C							97	4A							100
									405	608	620	421	308	203	401		528	490	623	727	291	125	426		110	209	106	311	604	602	712		414	319	716	413	615	517	118		499	311	722	204	702	512	781	
									501	105	508	503	703	707	221		725	328	627	726	423	791	223		112	211	402	104	710	709	706		318	218	213	714	519	115	419		402	312	299	381	704	680	511	
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									320	107	103	205	601	701	208		491	625	226	590	227	523	325		411	406	510	302	509	512	504		515	616	314	117	718	219	715		211	302	481	480	712	504	799	
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									721	101	605	607	301	220	603		526	527	525	391	128	390	790		306	204	109	610	612	511	702		613	315	618	216	417	114	516		180	281	112	102	199	711	604	
								78								79								88								89								98								99

1999 *E. globulus* subspecies provenance trial

Subspecies Groups	Field Code	Subspecies	Provenance
Group 1	2	*globulus*	Brunny Island (CSIRO N°18726)
	6		Clarke (NFP)
	4		Geeveston (CSIRO N°18723)
	9		East Coast North (NFP)
	10		East Coast Central (NFP)
	11		East Coast South Central (NFP)
	12		West Coast Central (NFP)
Group 2	3	*globulus*	King Island (NFP)
	5		Flinders (NFP)
	7		Otway Ranges (NFP)
	8		South Gippsland (NFP)
	1		Jeeralang North (CSIRO N° 16319)
	20	*pseudoglobulus*	Wiebens (CSIRO N°18111)
	21		Cann River (CSIRO N°19470)
Group 3	13	*maidenii*	Bolaro Mt. (CSIRO N°18728)
	14		Bondi S.F. (CSIRO N°19454)
	15		Belowra (CSIRO N°19456)
	16		Myrtle Mt. (CSIRO N°19458)
	17		Yambulla S.F. (CSIRO N°19284)
	18		Tantawanglo (CSIRO N°19460)
	19		Eden (AMCOR N°3499)
Group 4	22	*bicostata*	Canberra (AMCOR N°239)
	23		Burrinjuck (AMCOR N°242)
	24		Tumbarumba (AMCOR N°238)
	25		Wollemi (AMCOR N°243)
	26		Benalla (AMCOR N°244)
	27		Kiewa (AMCOR N°235)
	28		Mansfield (AMCOR N°245)
Group 5	29	*globulus*	Jeeralang (single mother tree)
	30	(improved)	Jeeralang (single mother tree)
	31		S. Geeveston (single mother tree)
	32		W.Coast Tasmania, Hently River (Single Mother Tree)
	33		Mix of seed 17 mothers from 8 provenances *
	34	*nitens*	*E. nitens* C. Victoria (Toorongo 16869)
	35		*E. nitens* NSW
	36		E.nitens Waikuku

* It includes genetic material from: Flinders Island, Seymour, Henly River, Leprena, King Island, Bruny Island, and Otways.

1999 *E. globulus* subspecies provenance trial

Composition of the bulked provenances of provided by North Eucalypt Technologies

GROUP No.	GEO-REGION (Bulked Provenance)	INDIVIDUAL PROVENANCES	No. families/ individual provenance	No. families in bulked provenance
3	King Island	Central King Island South King Island	14 1	15
5	Flinders Island	North. Flinders Island Central Flinders Island Central-North Flinders Island South Flinders Island	9 14 8 11	42
6	Clarke Island	Clarke Island N. Clarke Island West Clarke Island	3 10 28	41
7	Otway Ranges	Cannan Spur Cape Patton Jamieson Creek Lorne Otway State Forest Parker Spur South West Lavers Hill	21 18 7 27 41 56 5	175
8	South Gippsland	Bowden Road Jeeralang Madalya Road Port Franklin Hedley	5 3 6 4 7	25
9	Tasmania East Coast North	Pepper Hill Royal George St. Helens	10 10 10	30
10	Tasmania East Coast Central	Mayfield North Maria Island Triabunna	5 7 9	21
11	Tasmania East Coast South Central	Collinvale Hobart South Moogara	5 10 25	40
12	Tasmania West Coast Central	Badgers Creek Little Hently River Macquarie Harbour	7 10 4	21

OVERTON

Southland Plantation Forests of NZ Ltd

TRIAL DESCRIPTION SHEET

FOREST OWNER: Southland Plantation Forests Ltd

EXPT. No.: **FR304**

FOREST: OVERTON BLOCK

CPT.:

CONTACT PERSON: J. Hanayama

PHONE: (03) 218-2073

FAX: (03) 218-2066

CONTROLLING AGENCY: GTI

WORK PLAN #:

PROJECT:

FRI CORR. File:

PURPOSE: To compare the performance of different seedlots of *Eucalyptus nitens*.

LATITUDE: 46^0 02'

LONGITUDE: 168^0 35'

ALTITUDE: 320 masl

ASPECT: North West

SLOPE: 0-10^0

GROUND PREPARATION: Rip and Mounded.

SOIL TYPE:

PREVIOUS USE: Ex Pasture site.

EXPERIMENTAL DETAILS

SPECIES: *Eucalyptus nitens.*

STOCK: Root trainer

DATE PLANTED: October 96

 # OF PLOTS: 48

SIZE OF PLOTS: 27.2 m x 22.4 m

SPACING: 3.4 m x 2.8 m

TOTAL AREA: **2.9 hectares**

DEMARCATION: Numbered posts.

EXPERIMENTAL DESIGN: Large plots (64 trees), 6 replications.

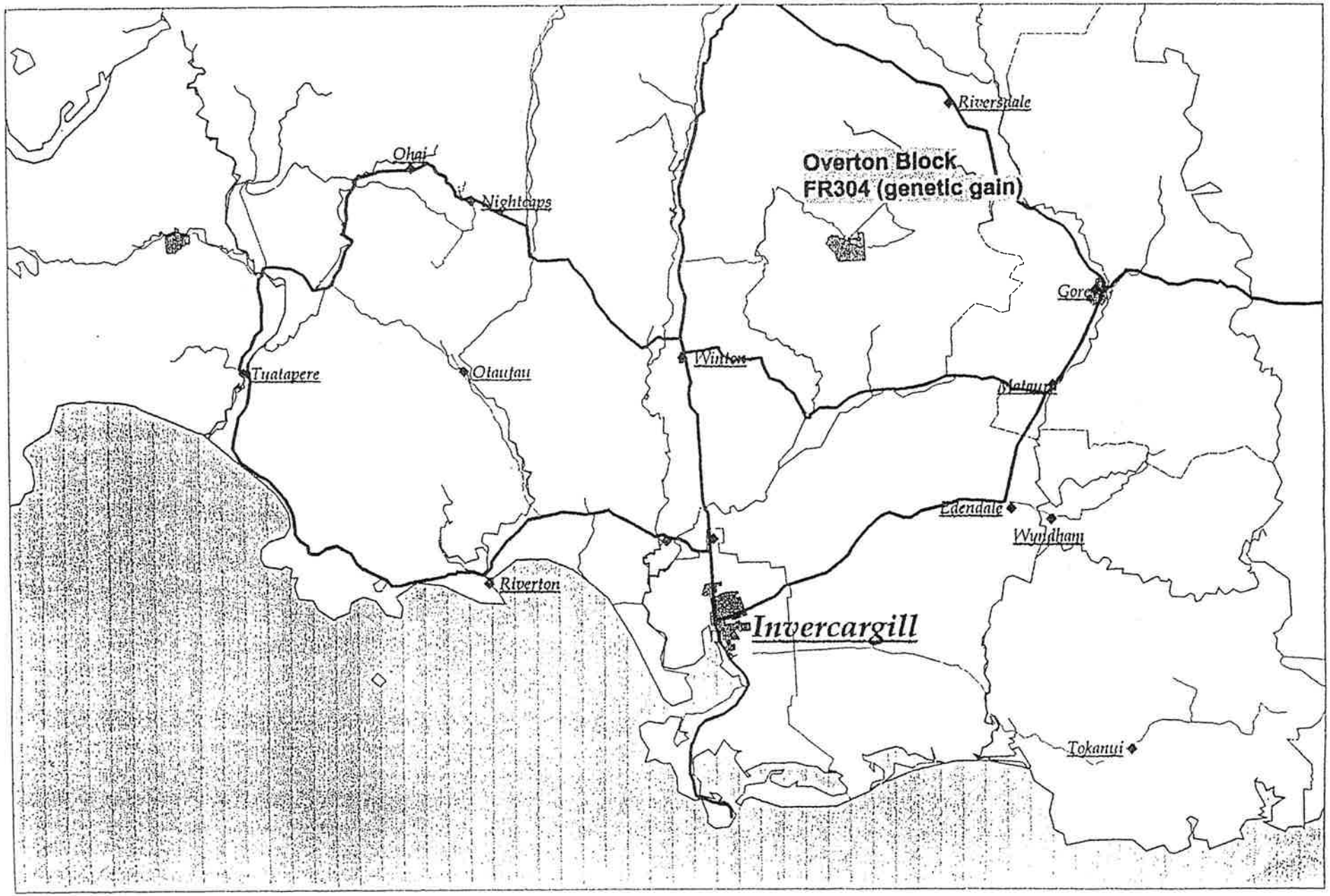
PROPOSED TREATMENT: **Keep weed free for two years.**

PROPOSED YEARS OF ASSESSMENT: 2001

PERMANENCY: 10 years.

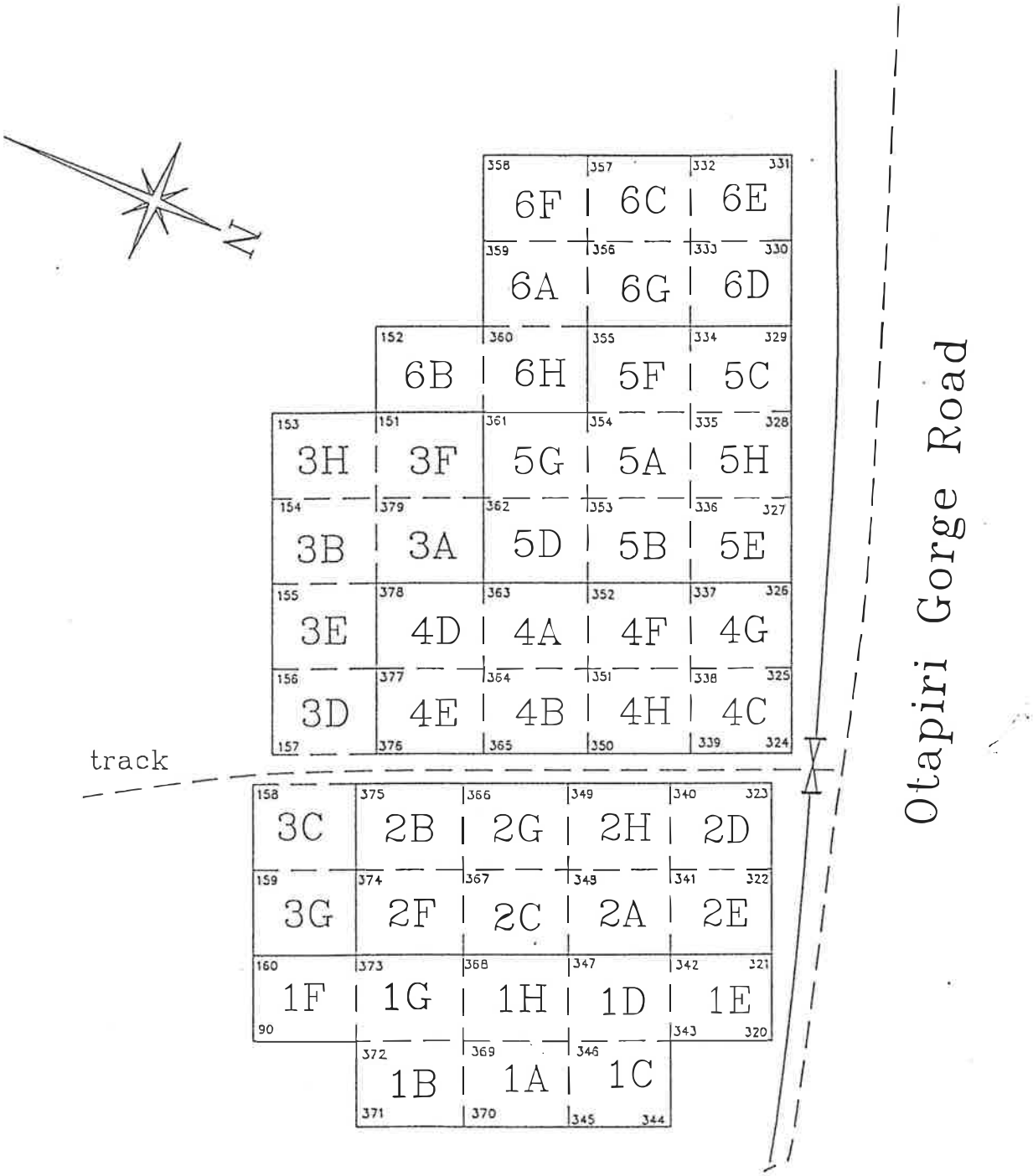
ATTACHMENTS:
Trial map
Location Map
Seedlot Information

Cadastral information derived from the Department of Survey and Land Information's Digital Cadastral Database (DCDB). CROWN COPYRIGHT RESERVED. Approved for internal reproduction by South Wood Export Ltd. and associated companies.



forest research

TITLE: **1996 *EUCALYPTUS NITENS* GENETIC GAIN TRIAL**
LOCATION: **OVERTON BLOCK, OTAPIRI GORGE RD, SOUTHLAND**
FOREST OWNER: **SOUTHLAND PLANTATION FORESTS OF NZ LTD**
ESTABLISHMENT DATE: **OCTOBER 1996** PLANTED AREA: **2.9 HA**
SPECIES: ***EUCALYPTUS NITENS*** TRIAL NUMBER: **FR304**
MAP NUMBER: **574** DRAWN BY: **GT STOVOLD** DATE: **17/12/96**
CONTACT: **RADIATA PINE TREE IMPROVEMENT** PH: **(07) 347-5899**



64	63	62	61	60	59	58	57
49	50	51	52	53	54	55	56
48	47	46	45	44	43	42	41
33	34	35	36	37	38	39	40
32	31	30	29	28	27	26	25
17	18	19	20	21	22	23	24
16	15	14	13	12	11	10	9
1	2	3	4	5	6	7	8

Tree Position

0 50 100m
SCALE

E.NITENS SEED SOURCE TRIAL FR 304

SEEDLOT INFORMATION

Set	Origin – central Victoria	Seed Supplier
A	2 families (888-874, 888.893) - Waikuku Clonal Seed Orchard	Proseed
B	30 families - Waikuku Clonal Seed Orchard	Proseed
C	96/070 Waiouru provenance collection	Proseed
D	Glentunnel	D.Franklin
E	VRD 26 AMCOR Seed Orchard	Kylisa Seeds
F	VRD 36 AMCOR Seed Orchard	Kylisa Seeds
G	94/09 Native collection, McAlister S.F, 178 Parent Trees	Kylisa Seeds
H	7 OP families Sumner Spur Seedling Seed Orchard	C. O'Conner