



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
London Broil
Sale GP-341-2018-92-

District: Southwest

Date: January 16, 2018

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$634,423.19	\$250.00	\$634,673.19
		Project Work:	(\$60,036.00)
		Advertised Value:	\$574,637.19



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Timber Description

Location: Portions of Section 28, T33S, R6W, W.M., Josephine County, Oregon. (Near Wolf Creek, Oregon)

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	16	0	90
Sugar Pine	18	0	90
Ponderosa Pine	19	0	90
Madrone	13	0	90

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	328	736	244	1,308
Sugar Pine	0	4	1	5
Ponderosa Pine	0	37	7	44
Madrone	0	0	5	5
Total	328	777	257	1,362

Comments: Pond Values Used: Local Pond Values, November 2017.

This sale is a 3 Area, 145 net acre commercial thinning and regeneration harvest of 85 year old Douglas-fir and mixed conifers.

Grand Fir and Other Conifers Stumpage Price = Pond Value minus Logging Cost:
 $\$415/\text{MBF} = \$630/\text{MBF} - \$215/\text{MBF}$

Incense Cedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$435/\text{MBF} = \$650/\text{MBF} - \$215/\text{MBF}$

Madrone and Other Hardwoods Stumpage Price =
 $\$50/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

BRANDING AND PAINTING COST ALLOWANCE = $\$2.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE
Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):
None.

Other Costs (No Profit & Risk added):
None.



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Logging Conditions

Combination#: 1	Douglas - Fir	14.31%
Logging System:	Cable: Medium Tower >40 - <70	Process: Manual Falling/Delimbing
yarding distance:	Medium (800 ft)	downhill yarding: No
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF	
loads / day:	3	bd. ft / load: 4000
cost / mbf:	\$550.00	
machines:	Log Loader (A) Tower Yarder (Medium)	
Combination#: 2	Douglas - Fir	26.65%
	Sugar Pine	30.00%
	Ponderosa Pine	30.00%
Logging System:	Shovel	Process: Stroke Delimber
yarding distance:	Medium (800 ft)	downhill yarding: No
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
loads / day:	7	bd. ft / load: 3800
cost / mbf:	\$119.25	
machines:	Stroke Delimber (B)	
Combination#: 3	Douglas - Fir	59.04%
	Sugar Pine	70.00%
	Ponderosa Pine	70.00%
	Madrone	100.00%
Logging System:	Cable: Medium Tower >40 - <70	Process: Stroke Delimber
yarding distance:	Medium (800 ft)	downhill yarding: No
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
loads / day:	9	bd. ft / load: 3800
cost / mbf:	\$175.44	
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Medium)	



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Logging Costs

Operating Seasons: 1.00	Profit Risk: 10%
Project Costs: \$60,036.00	Other Costs (P/R): \$0.00
Slash Disposal: \$0.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
3.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.0
Sugar Pine	\$0.00	3.0	4.0
Ponderosa Pine	\$0.00	3.0	4.0
Madrone	\$0.00	0.0	0.0



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
\$214.07	\$1.98	\$3.22	\$71.50	\$0.00	\$29.08	\$0.00	\$7.00	\$0.00	\$326.85
Sugar Pine									
\$158.58	\$1.98	\$3.22	\$71.50	\$0.00	\$23.53	\$0.00	\$7.00	\$0.00	\$265.81
Ponderosa Pine									
\$158.58	\$1.98	\$3.22	\$71.50	\$0.00	\$23.53	\$0.00	\$7.00	\$0.00	\$265.81
Madrone									
\$175.44	\$1.98	\$0.00	\$0.00	\$0.00	\$1.98	\$0.00	\$0.00	\$0.00	\$179.40

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$802.96	\$476.11	\$0.00
Sugar Pine	\$0.00	\$504.00	\$238.19	\$0.00
Ponderosa Pine	\$0.00	\$504.00	\$238.19	\$0.00
Madrone	\$0.00	\$229.40	\$50.00	\$0.00



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Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Sugar Pine	0	\$0.00	\$0.00
Ponderosa Pine	0	\$0.00	\$0.00
Madrone	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,308	\$476.11	\$622,751.88
Sugar Pine	5	\$238.19	\$1,190.95
Ponderosa Pine	44	\$238.19	\$10,480.36
Madrone	5	\$50.00	\$250.00

Gross Timber Sale Value

Recovery: \$634,673.19

Prepared By: Wyatt Taylor

Phone: 541-471-4252

PROJECT SUMMARY**Project 1**

Road Improvements	Segment	Stations	Activity	Cost
	B-C	5.85	Light Blading	\$33
	B-G	26.08	Light Blading	\$148
	G-H	18.06	Light Blading	\$103
	H-I	86.68	Brush/Blade	\$1,313
	K-J	11.41	Brush/Grub	\$2,853
	K-L	9.8	Brush/ Blade	\$148
Total				\$4,599

Project 2

Road Construction	Segment	Stations	Activity	Cost
	C-D	6.35	Road construction in Area 1	\$2,350
	E-F	7.13	Road construction in Area 1	\$2,638
Total				\$4,987

Project 3

Road Construction	Segment	Stations	Activity	Cost
	L-M	14.7	Road construction into Area 3	\$21,228
Equipment Costs	Days	Cost/hr	Equipment	Cost
	6	\$127	2 Dump Trucks	\$18,369
	6	\$129	1 Excavator	\$9,288
Total				\$48,885

Mobilization	\$1,565
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Combined Project Costs	\$60,036
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London Broil

Cruise Design

June 8, 2017

Objectives: 5194, 5187 & 5198

- Collect growth increments for grow forward data of current inventory on every count plot.
- Estimate take trees according to RX below.
- General Recon info on streams, RX, slopes, property lines, spp.

Variable plot cruise- Measure, Count, Measure, Count.

BAF Select between: 27.78 BAF (10 bars), 33.61 BAF (11 bars) and 40 BAF (12 bars)
Total of 52 plots: 26 Measure; 26 Plots

Stats- Estimate of CV= 75%, SE% of 12.

Cruise lines- Area I (1000) - (18 plots) 396' plots by 462' lines
Area II (2000) - (23 plots) 297' by 330'
Area III (3000) - (17 plots) 198' by 330'

Prescription- Pre-cruise estimates of the cutting prescription:

Area	RX	Conifer BA	HW BA	Ending BA
1	Thin	182	29	120
2	CC	165	27	10
3	CC	173	50	10

General Instructions

Measure Standards:

1. View all conifers at DBH.
2. Form point is at 4 feet.
3. Record height to the nearest foot.
4. Diameter taken outside bark at 4.5 feet above stump height.
5. Measure total height of all trees or to 6 or 8 inches outside bark.
6. Cruise to 17, 26, 34, and 40 foot logs. Preferred lengths: When cruising think about the final product. Douglas-fir, White fir, and veneer pine should be graded to the preferred length, 34+10, 17+1-, and 26+10. At Swanson, the largest peeler log is 20" and at Murphy, the cutoff is 25". Boise has a 4 foot lathe, but will accept two foot multiples at the mill, where the extra two feet is chipped. Cruise to a 34+12 or 40+12 for oversize logs. In all cases, two and four foot multiples are acceptable. Cedar is cut to 32+10 or 16+10. Oversize pine is cut to 32+12 or 16+10.

Special Considerations:

1. Plot centers will be marked with pink ribbon.
2. Increment bore one codominant tree on each measure plot
3. Note where hardwoods are located.
4. Measure and document the location of steep slopes (60% and above) with GPS.
5. Document all skipped plots on map and changes in location to plots or lines.
6. Note any existing skid trails throughout the sale area.

CRUISE REPORT

SALE NAME: London Broil

SALE NUMBER: 341-18-92

1. **Acreage Calculation:** There are 145 net cruise acres in the sale area determined by a combination of GPS traverse waypoints and ArcGIS 10.2 software. Net acres do not include the riparian management areas, regeneration areas within the stand, and non-stocked areas which were not cruised.
2. **Cruise Method:** London Broil was cruised by ODF during the summer and fall of 2017. A variable plot cruise was conducted on three harvest areas, each of which were treated as individual strata.
3. **RIGHT of WAY VOLUMES:** There is currently no right of way volume associated with this sale.
4. **Sampling Intensity:**

# Plots	58 Total Plots (32 measured, 22 Count, 4 Blanks)
CV (BDFT)	<u>84%</u>
SE (BDFT)	<u>11%</u>

As per ODF standards, total harvest volume of conifers and hardwoods ("take" trees) is estimated to be 1.4 MBF $\pm$ 150 MBF at the 68% confidence level and a sampling error of 11%*. 68 times out of 100 the volume estimate will be within range of error specified.
5. **Computation Procedures:** Volume was computed using the SuperACE cruise program. Volumes reported are based on the Scribner Log Rule (West).
6. **Form Factors:** Form factors (a ratio of diameter at 4 and 16 feet) were sampled across the diameter distribution in all strata. Those form factors which were not measured were estimated by SuperACE.
7. **Height Standards:** Most conifer trees were measured for total height with a laser rangefinder.
8. **Diameter standards:** Diameters were measured outside bark at breast height to the nearest inch.
9. **Grading System:** Trees were graded primarily as 34 foot segments lengths and according to the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group.
10. **Merchantable top:** Conifer were graded to a merchantable top specified by the official log scaling rules. For all species except pine, 2S segments were graded to a 12" top inside bark, 3S to a 6" top, and 4S to a 5" top (inside bark). Pine 4S logs were graded to a 12" top inside bark, 5S to a 6" top, and 6S to a 5" top (inside bark).
11. **Deductions for Cull, Defect and Breakage:** All visible field cull was removed in the cruise computation. Additional volume was deducted for the anticipated amount of hidden cull and breakage during logging. The estimated volume reduction used for this anticipated loss to volume was 10%.
12. **Cruisers:** Cruising was performed by Chris Rudd and Wyatt Taylor.

*ODF does not guarantee the volume of this or any other cruise. Prospective purchasers are advised to do their own cruise and sale volume calculations.

Chris Rudd, Unit Forester : _____

Date _____

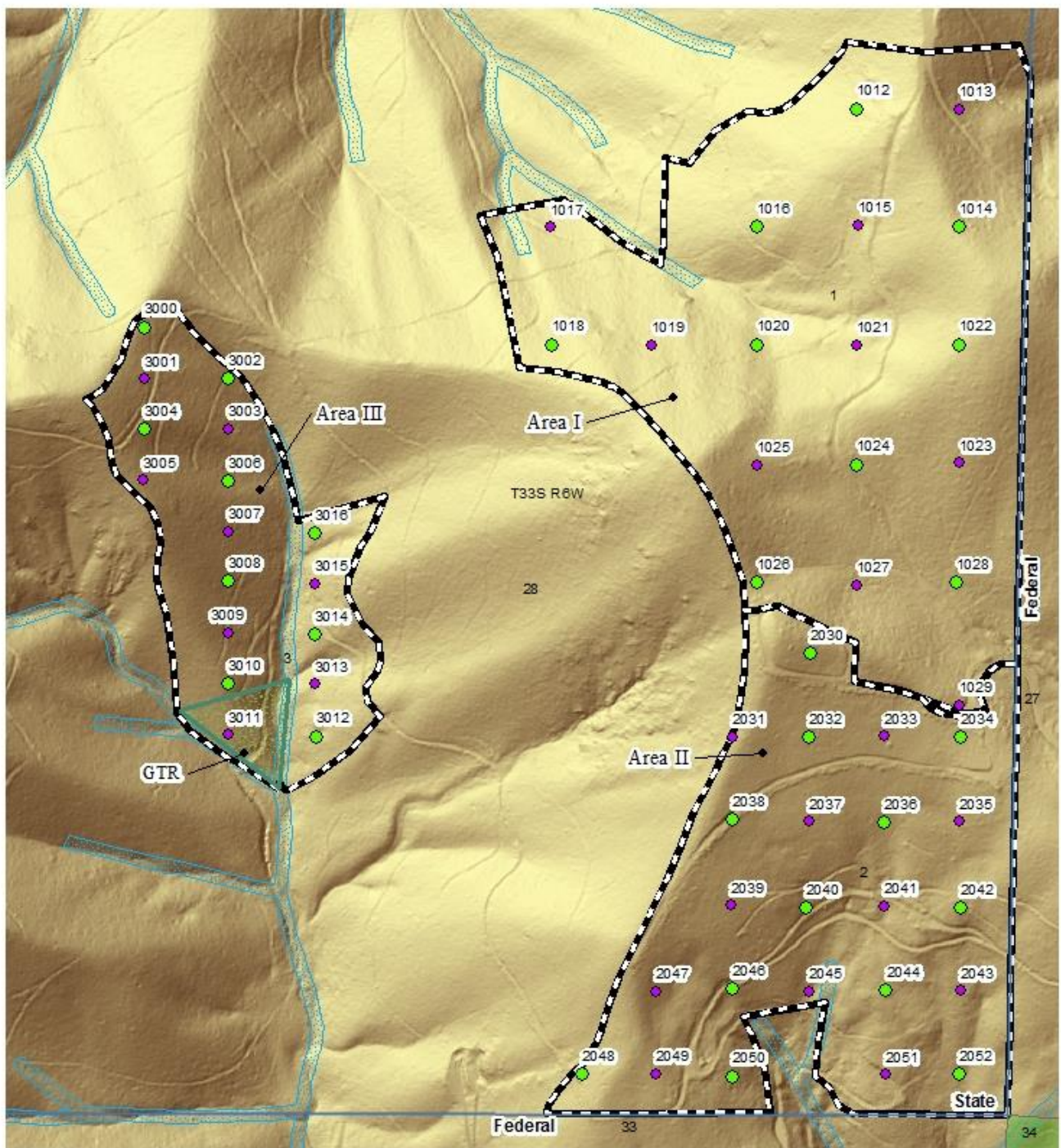
	Plots	Trees	Trees Per Plot
Cruise	32	125	4
Count	22	116	5
Blanks	4	0	0
Total	58	241	4.5

Summary Volume Table						
Total Net Volume (%) All Areas						
	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals
Douglas-fir	24%	54%	18%	0%	0%	96%
Ponderosa Pine	0%	3%	1%	0%	0%	4%
Sugar Pine	0%	0%	0%	0%	0%	0%
Madrone	0%	0%	0%	0%	0%	0%
Total	24%	57%	19%	0%	0%	100%

Summary Volume Table						
Adjusted Net Volume (BF) Sale Area						
	2 Saw	3 Saw	4 Saw	5 Saw	6 Saw	Totals
Douglas-fir	328,633	736,365	243,687	0	0	1,308,685
Ponderosa Pine	0	36,766	7,115	0	0	43,881
Sugar Pine	0	4,177	780	0	0	4,957
Madrone	0	0	4,526	0	0	4,526
Total	328,633	777,308	256,108	0	0	1,362,049

Adjusted Board Foot Volume Summary by Strata									
Area	Net Acres	Plots	Avg BF/ac	CV	SE	SE units	Low (BF)	Average Total (BF)	High (BF)
1	74	18	3,892	174%	41%	117,917	170,091	288,007	405,924
2	51	23	17,142	46%	10%	84,540	789,697	874,236	958,776
3	20	17	9,989	81%	20%	39,440	160,349	199,789	239,228
Total Sale Area	145.0	58	9,393	84%	11%	150,355	1,211,677	1,362,032	1,512,387

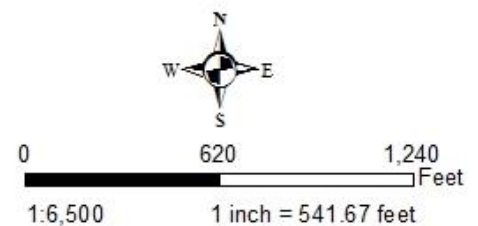
*Because of the nature of the stratified sample, area (stratum) volume estimates will be less accurate than the total combined volume estimate.



Legend

-  Stream Buffer
-  Sale Boundary
-  Count Plots
-  Measure Plots

**London Broil
Cruise Map**
33.61 BAF (11 bars)
 Spacing
 Area 1: 396' Plot, 462' Line
 Area 2: 297' Plot, 330' Line
 Area 3: 196' Plot, 330' Line



TC		PLOGSTVB		Log Stock Table - MBF															
T33S R06W S28 TyTHIN 74.00				Project:		LONDON										Page		1	
				Acres		74.00										Date		11/14/2017	
																Time		7:43:24AM	
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches										
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
DF	L	DO	2M	34	317		317	26.2					85	177		54			
DF	L	DO	3M	24	18		18	1.5				18							
DF	L	DO	3M	25	6		6	.5		6									
DF	L	DO	3M	26	36		36	3.0			36								
DF	L	DO	3M	34	531		531	43.8		57	34	187	37	101	114				
DF	L	DO	4M	12	5		5	.4		5									
DF	L	DO	4M	13	5		5	.4		5									
DF	L	DO	4M	15	14		14	1.2		14									
DF	L	DO	4M	16	14		14	1.2		14									
DF	L	DO	4M	17	12		12	1.0		12									
DF	L	DO	4M	18	16		16	1.3		16									
DF	L	DO	4M	20	12		12	1.0			12								
DF	L	DO	4M	21	7		7	.6		7									
DF	L	DO	4M	26	60		60	4.9		7	52								
DF	L	DO	4M	28	5		5	.4		5									
DF	L	DO	4M	29	4		4	.4		4									
DF	L	DO	4M	30	67		67	5.5					21		45				
DF	L	DO	4M	31	7		7	.6		7									
DF	L	DO	4M	33	6		6	.5		6									
DF	L	DO	4M	34	48		48	4.0		4	22	22							
DF	L	DO	4M	38	3		3	.3		3									
DF	L	DO	4M	41	18		18	1.5		18									
DF		Totals			1,211		1,211	78.1		133	109	105	227	123	300	114	100		
DF	T	DO	3M	34	238		238	74.5			15	33	190						
DF	T	DO	4M	13	3		3	.8		3									
DF	T	DO	4M	14	3		3	.8		3									
DF	T	DO	4M	15	7		7	2.2		7									
DF	T	DO	4M	22	5		5	1.7		5									
DF	T	DO	4M	26	29		29	9.0			11	18							
DF	T	DO	4M	35	25		25	7.8		25									
DF	T	DO	4M	39	10		10	3.2		10									
DF		Totals			320		320	20.6		53	26	51	190						
IC	L	DO	3M	34	7		7	83.3			7								
IC	L	DO	4M	17	1		1	16.7		1									
IC		Totals			9		9	.6		1	7								

TC		PLOGSTVB		Log Stock Table - MBF															
T33S R06W S28 TyTHIN				74.00		Project:		LONDON								Page		2	
						Acres		74.00								Date		11/14/2017	
																Time		7:43:24AM	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
CQ	L	DO	3M	34	9	9	88.9							9					
CQ	L	DO	4M	28	1	1	11.1	1											
CQ		Totals			10	10	.7	1						9					
Total		All Species			1,550	1,550	100.0	189		135	163	417	123	309	114	100			

TC PLOTTREELIST										Plot Tree List - Volumes					Page	1	
Project										LONDON					Date	11/14/2017	
TWP	RGE	SC	TRACT		TYPE		ACRES		PLOTS	TREES		CRUISED DATE					
33S	06W	28	AREA 1		THIN		74.00		18	31		7/1/2017					
Plot	Tree			Trees		16'	Tot	BA		Trees	Logs	Net	Net	Total			
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
1012	0001	95	80	DF													
1012											0.00						
1013	0001	95	80	DF	L	5	16.0	87	81	168.1	113.14	265.6	5,481	23,749	225	98	
	0002	95	80	DF	L	3	16.0	87	81	100.8	67.89	159.4	3,288	14,249	135	59	
1013		80				8	16.5	87	81	268.9	181.03	425.0	8,769	37,998	361	156	
1014	0001	95	80	DF													
1014											0.00						
1015	0001	95	80	DF	L	9	16.0	87	81	302.5	203.66	478.1	9,865	42,748	406	176	
1015		80				9	16.5	87	81	302.5	203.66	478.1	9,865	42,748	406	176	
1016	0001	95	80	DF	L	1	10.0	87	65	33.6	61.62	123.2	755	3,697	31	15	
	0002	95	80	DF	T	1	15.5	89	95	33.6	25.65	76.9	1,205	5,130	50	21	
	0003	95	80	DF	L	1	11.0	85	66	33.6	50.93	101.9	723	3,056	30	13	
	0004	95	80	DF	L	1	19.0	92	104	33.6	17.07	51.2	1,350	6,145	56	25	
1016		80				4	12.6	87	75	134.4	155.27	353.3	4,032	18,028	166	74	
1017	0001	95	80	DF	L	1	16.0	87	81	33.6	22.63	53.1	1,096	4,750	45	20	
	0002	95	80	DF	L	1	16.0	87	81	33.6	22.63	53.1	1,096	4,750	45	20	
1017		80				2	16.5	87	81	67.2	45.26	106.3	2,192	9,500	90	39	
1018	0001	95	80	DF	L	1	15.0	85	60	33.6	27.39	54.8	740	2,191	30	9	
	0002	95	80	DF	L	1	28.5	81	118	33.6	7.59	22.8	1,393	5,993	57	25	
	0003	95	80	DF	T	1	13.5	85	55	33.6	33.81	67.6	682	2,367	28	10	
	0004	95	80	DF	L	1	17.0	85	75	33.6	21.32	42.6	893	3,412	37	14	
	0005	95	80	DF	L	1	25.5	83	100	33.6	9.48	28.4	1,245	5,117	51	21	
1018		80				5	17.6	85	70	168.1	99.59	216.2	4,952	19,080	204	78	
1019	0001	95	80	DF	L	1	16.0	87	81	33.6	22.63	53.1	1,096	4,750	45	20	
1019		80				1	16.5	87	81	33.6	22.63	53.1	1,096	4,750	45	20	
1020	0001	95	80	DF	L	1	15.5	92	95	33.6	25.65	51.3	1,173	5,386	48	22	
	0002	95	80	DF	L	1	30.5	89	120	33.6	6.62	19.9	1,461	7,221	60	30	
	0003	95	80	DF	L	1	18.5	92	98	33.6	18.01	54.0	1,206	5,222	50	21	
1020		80				3	19.2	92	99	100.8	50.28	125.2	3,840	17,828	158	73	
1021	0001	95	80	DF	L	5	16.0	87	81	168.1	113.14	265.6	5,481	23,749	225	98	
	0002	95	80	DF	T	5	14.0	87	84	168.1	137.20	309.9	5,241	21,622	215	89	
1021		80				10	15.7	87	83	336.1	250.34	575.6	10,722	45,371	441	187	
1022	0001	95	80	DF	L	1	19.0	87	102	33.6	17.07	51.2	1,226	5,633	50	23	
	0002	95	80	DF	T	1	16.0	87	105	33.6	24.07	72.2	1,215	5,296	50	22	
	0003	95	80	DF	L	1	18.0	87	95	33.6	19.02	57.1	1,118	4,565	46	19	
	0004	95	80	DF	T	1	14.0	87	92	33.6	31.44	62.9	1,047	4,402	43	18	
	0005	95	80	DF	T	1	16.0	87	93	33.6	24.07	48.1	1,146	4,574	47	19	
	0006	95	80	DF	L	1	22.0	85	118	33.6	12.73	38.2	1,403	6,111	58	25	
1022		80				6	17.0	87	99	201.7	128.40	329.7	7,155	30,580	294	126	
1023	0001	95	80	DF	T	2	14.0	87	84	67.2	54.88	124.0	2,096	8,649	86	36	
	0002	95	80	DF	L	3	16.0	87	81	100.8	67.89	159.4	3,288	14,249	135	59	
1023		80				5	15.8	87	82	168.1	122.77	283.4	5,385	22,898	221	94	
1024	0001	95	80	DF	L	1	30.0	85	104	33.6	6.85	20.5	1,269	5,957	52	24	
	0002	95	80	DF	T	1	15.0	87	89	33.6	27.39	54.8	1,078	4,656	44	19	
	0003	95	80	DF	L	1	17.0	87	95	33.6	21.32	64.0	1,110	4,691	46	19	
	0004	95	80	DF	L	1	12.0	87	71	33.6	42.79	85.6	813	3,423	33	14	

TC PLOTTREELIST				Plot Tree List - Volumes										Page	2		
				Project		LONDON						Date	11/14/2017				
TWP	RGE	SC	TRACT		TYPE		ACRES		PLOTS		TREES		CRUISED DATE				
33S	06W	28	AREA 1		THIN		74.00		18		31		7/1/2017				
Plot	Tree				Trees		16'	Tot	BA	Trees	Logs	Net	Net	Total			
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
1024	0005	95	80	DF	L	1		22.0	85	80	33.6	12.73	25.5	1,005	3,565	41	15
1024			80			5		16.7	87	83	168.1	111.08	250.3	5,275	22,292	217	92
1025	0001	95	80	DF	L		5	16.0	87	81	168.1	113.14	265.6	5,481	23,749	225	98
1025			80				5	16.5	87	81	168.1	113.14	265.6	5,481	23,749	225	98
1026	0001	95	80	IC	L	1		18.5	75	66	33.6	18.01	36.0	826	2,161	34	9
	0002	95	80	CQ	L	1		26.0	75	72	33.6	9.12	18.2	982	2,461	40	10
	0003	95	80	DF	L	1		12.5	85	65	33.6	39.44	78.9	809	2,761	33	11
	0004	95	80	DF	L	1		12.0	85	60	33.6	42.79	85.6	738	2,996	30	12
	0005	95	80	DF	T	1		15.5	87	71	33.6	25.65	51.3	965	3,847	40	16
1026			80			5		15.1	83	65	168.1	135.00	270.0	4,321	14,226	178	58
1027	0001	95	80	DF	L		3	16.0	87	81	100.8	67.89	159.4	3,288	14,249	135	59
	0002	95	80	DF	T		4	14.0	87	84	134.4	109.76	247.9	4,193	17,298	172	71
1027			80				7	15.6	87	83	235.3	177.65	407.3	7,481	31,547	308	130
1028	0001	95	80	DF	L	1		22.0	87	116	33.6	12.73	38.2	1,342	6,111	55	25
	0002	95	80	DF	L	1		21.0	87	115	33.6	13.97	41.9	1,364	6,428	56	26
	0003	95	80	DF	L	1		24.0	82	118	33.6	10.70	32.1	980	4,814	40	20
1028			80			3		22.2	86	116	100.8	37.40	112.2	3,686	17,353	152	71
1029	0001	95	80	DF	L		4	16.0	87	81	134.4	90.51	212.5	4,385	18,999	180	78
	0002	95	80	MA	T		1										
1029			80				5	16.5	87	81	134.4	90.51	212.5	4,385	18,999	180	78
TYPE			80			31	52	16.2		82	153.1	106.89	248.0	4,924	20,942	3,644	1,550

TC PSTATS			PROJECT STATISTICS						PAGE	1	
			PROJECT			LONDON			DATE	11/14/2017	
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt	
33S	06	28	AREA 1	THIN	74.00		18	83	S	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			18	83	4.6						
CRUISE			7	31	4.4	7,910	.4				
DBH COUNT											
REFOREST											
COUNT			9	52	5.8						
BLANKS			2								
100 %											
STAND SUMMARY											
SAMPLE TREES			TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L			22	77.9	16.5	81	28.5	115.8	16,360	16,360	3,776
DOUG FIR-T			7	27.4	15.0	84	8.7	33.6	4,324	4,324	1,048
INC CED-L			1	1.0	18.5	66	0.4	1.9	120	120	46
CHINQUAP-L			1	.5	26.0	72	0.4	1.9	137	137	55
TOTAL			31	106.9	16.2	82	38.0	153.1	20,942	20,942	4,924
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR-L			80.8	17.6	287	349	410				
DOUG FIR-T			30.4	12.4	143	163	183				
INC CED-L											
CHINQUAP-L											
TOTAL			84.8	15.2	252	297	342	287	72	32	
CL	68.1	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR-L			75.0	16.4	66	79	92				
DOUG FIR-T			26.6	10.8	35	39	44				
INC CED-L											
CHINQUAP-L											
TOTAL			76.0	13.6	60	70	79	231	58	26	
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR-L			70.7	17.1	65	78	91				
DOUG FIR-T			152.8	37.0	17	27	38				
INC CED-L			424.3	102.8		1	2				
CHINQUAP-L			424.3	102.8		1	1				
TOTAL			66.7	16.2	90	107	124	188	47	21	
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR-L			67.7	16.4	97	116	135				
DOUG FIR-T			153.4	37.2	21	34	46				
INC CED-L			424.3	102.8		2	4				
CHINQUAP-L			424.3	102.8		2	4				
TOTAL			62.2	15.1	130	153	176	163	41	18	
CL	68.1	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR-L			68.5	16.6	13,644	16,360	19,077				
DOUG FIR-T			156.3	37.9	2,686	4,324	5,963				
INC CED-L			424.3	102.8		120	243				
CHINQUAP-L			424.3	102.8		137	277				

TC PSTATS				PROJECT STATISTICS				PAGE	2	
				PROJECT	LONDON			DATE	11/14/2017	
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
33S	06	28	AREA 1	THIN	74.00		18	83	S	W
CL	68.1		COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL			62.8	15.2	17,757	20,942	24,126	166	42	18
CL	68.1		COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-L			68.3	16.6	3,150	3,776	4,401			
DOUG FIR-T			155.7	37.7	653	1,048	1,444			
INC CED-L			424.3	102.8		46	93			
CHINQUAP-L			424.3	102.8		55	111			
TOTAL			62.3	15.1	4,181	4,924	5,667	164	41	18

TC		PLOGSTVB																		Log Stock Table - MBF									
T33S R06W S28 TyCC				51.00		Project:		LONDON										Page		1									
																		Date		11/14/2017									
																		Time		8:52:32AM									
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches																					
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+										
DF	T	DO	2M	16	13	13	1.4										13												
DF	T	DO	2M	27	19	19	2.0							19															
DF	T	DO	2M	34	292	292	31.9						51	80	41	121													
DF	T	DO	3M	25	7	7	.7						7																
DF	T	DO	3M	26	9	9	1.0				6	3																	
DF	T	DO	3M	30	8	8	.9							8															
DF	T	DO	3M	31	1	1	.1		1																				
DF	T	DO	3M	34	434	434	47.3				117	95	34	48	98	41													
DF	T	DO	4M	12	4	4	.4		4																				
DF	T	DO	4M	13	1	1	.1		1																				
DF	T	DO	4M	15	3	3	.3		3																				
DF	T	DO	4M	16	6	6	.6		6																				
DF	T	DO	4M	17	1	1	.2		1																				
DF	T	DO	4M	19	10	10	1.0		10																				
DF	T	DO	4M	20	9	9	1.0		1			5	3																
DF	T	DO	4M	21	1	1	.1		1																				
DF	T	DO	4M	22	2	2	.2		2																				
DF	T	DO	4M	23	2	2	.2		2																				
DF	T	DO	4M	24	6	6	.6		6																				
DF	T	DO	4M	26	6	6	.7		3			3																	
DF	T	DO	4M	27	9	9	1.0		9																				
DF	T	DO	4M	29	5	5	.5		5																				
DF	T	DO	4M	30	11	11	1.2		11																				
DF	T	DO	4M	33	18	18	2.0		18																				
DF	T	DO	4M	34	28	28	3.1			15	6		7																
DF	T	DO	4M	35	1	1	.2		1																				
DF	T	DO	4M	36	4	4	.4		4																				
DF	T	DO	4M	38	2	2	.2		2																				
DF	T	DO	4M	40	7	7	.7		7																				
DF		Totals			917	917	84.9		96	15	129	107	102	154	139	162	13												
DF	L	DO	2M	34	32	32	48.8									32													
DF	L	DO	3M	26	2	2	2.7					2																	
DF	L	DO	3M	34	28	28	42.2							15	13														
DF	L	DO	4M	20	1	1	1.4					1																	
DF	L	DO	4M	21	0	0	.6		0																				
DF	L	DO	4M	27	2	2	3.0							2															

TC		PLOGSTVB		Log Stock Table - MBF																
T33S R06W S28 TyCC				51.00		Project: Acres		LONDON 51.00						Page		2				
														Date		11/14/2017				
														Time		8:52:32AM				
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	L	DO	4M	28	0		0	.5		0										
DF	L	DO	4M	40	1		1	.8		1										
DF		Totals			66		66	6.1		1			3	2	15	13	32			
PP	T	DO	3M	34	41		41	83.8			8			7		26				
PP	T	DO	4M	22	2		2	4.4		2										
PP	T	DO	4M	29	1		1	1.1		1										
PP	T	DO	4M	34	4		4	8.8						4						
PP	T	DO	4M	39	1		1	1.9		1										
PP		Totals			49		49	4.5		4	8			11		26				
PP	L	DO	3M	22	3		3	12.2						3						
PP	L	DO	3M	34	24		24	82.3						5		10	9			
PP	L	DO	4M	22	2		2	5.5		0			1							
PP		Totals			29		29	2.6		0			1	8		10	9			
SP	L	DO	3M	16	3		3	20.4								3				
SP	L	DO	3M	34	11		11	78.2					2				10			
SP	L	DO	4M	18	0		0	1.4		0										
SP		Totals			14		14	1.3		0			2			3	10			
SP	T	DO	3M	26	5		5	84.6				5								
SP	T	DO	4M	22	1		1	15.4		1										
SP		Totals			5		5	.5		1			5							
Total		All Species			1,080		1,080	100.0		103	15	136	111	107	168	162	214	63		

TC PLOTTREELIST				Plot Tree List - Volumes										Page	1		
				Project				LONDON				Date	11/14/2017				
TWP	RGE	SC	TRACT		TYPE				ACRES	PLOTS	TREES	CRUISED DATE					
33S	06W	28	AREA 2		CC				51.00	23	58	7/1/2017					
Plot	Tree				Trees		16'	Tot	BA	Trees	Logs	Net	Net	Total			
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
2030	0001	90	80	DF	T	1		12.5	92	67	33.6	39.44	78.9	830	3,549	18	8
	0002	90	80	DF	T	1		13.5	92	70	33.6	33.81	67.6	891	4,057	20	9
	0003	90	80	DF	T	1		8.5	92	54	33.6	85.29	85.3	683	3,412	15	8
	0004	90	80	MA	T	1		25.0	75	70	33.6	9.86					
2030		80				4		12.1	91	61	134.4	168.40	231.8	2,404	11,019	53	24
2031	0001	90	80	DF	T		5	17.0	89	85	168.1	104.03	231.8	5,755	26,178	128	58
	2031	80				5	17.2	89	85	168.1	104.03	231.8	5,755	26,178	128	58	
2032	0001	90	80	DF	T	1		23.0	87	98	33.6	11.65	34.9	1,214	5,359	27	12
	0002	90	80	DF	T	1		23.5	87	102	33.6	11.16	33.5	1,255	5,468	28	12
	0003	90	80	PP	L	1		33.5	85	129	33.6	5.49	22.0	1,439	7,248	32	16
	0004	90	80	PP	L	1		36.0	85	110	33.6	4.75	9.5	1,061	5,658	24	13
	0005	90	80	DF	T	1		29.0	89	117	33.6	7.33	22.0	1,460	7,254	32	16
	0006	90	80	DF	L	1		33.0	89	121	33.6	5.66	17.0	1,527	7,639	34	17
2032		80				6		28.3	87	110	201.7	46.04	138.9	7,956	38,626	176	86
2033	0001	90	80	DF	T		7	17.0	89	85	235.3	145.64	324.5	8,057	36,649	179	81
	2033	80				7	17.2	89	85	235.3	145.64	324.5	8,057	36,649	179	81	
2034	0001	90	80	DF	T	1		12.0	87	92	33.6	42.79	85.6	1,046	4,279	23	9
	0002	90	80	DF	T	1		19.0	87	104	33.6	17.07	51.2	1,215	5,121	27	11
	0003	90	80	DF	T	1		18.0	87	97	33.6	19.02	57.1	1,171	4,755	26	11
2034		80				3		15.3	87	96	100.8	78.88	193.9	3,432	14,155	76	31
2035	0001	90	80	DF	T		6	17.0	89	85	201.7	124.84	278.1	6,906	31,414	153	70
	2035	80				6	17.2	89	85	201.7	124.84	278.1	6,906	31,414	153	70	
2036	0001	90	80	DF	T	1		32.0	89	124	33.6	6.02	24.1	1,533	8,305	34	18
	0002	90	80	DF	T	1		23.0	89	109	33.6	11.65	34.9	865	3,961	19	9
	0003	90	80	DF	T	1		29.0	89	125	33.6	7.33	29.3	1,528	8,060	34	18
	0004	90	80	DF	L	1		35.0	86	130	33.6	5.03	20.1	1,568	8,401	35	19
2036		80				4		28.7	88	119	134.4	30.02	108.4	5,494	28,726	122	64
2037	0001	90	80	DF	T	1		17.0	89	85	33.6	20.81	46.4	1,151	5,236	26	12
	0002	90	80	MA	T	1		12.0	75	54	33.6	37.15					
2037		80				2	14.6	80	65	67.2	57.96	46.4	1,151	5,236	26	12	
2038	0001	90	80	DF	T	1		23.5	87	96	33.6	11.16	33.5	1,203	5,021	27	11
	0002	90	80	SP	T	1		18.0	89	60	33.6	19.02	38.0	675	2,473	15	5
	0003	90	80	DF	T	1		22.0	91	95	33.6	12.73	38.2	1,265	5,729	28	13
	0004	90	80	PP	T	1		32.0	86	111	33.6	6.02	18.1	1,291	5,897	29	13
2038		80				4		22.4	89	84	134.4	48.93	127.8	4,433	19,121	98	42
2039	0001	90	80	DF	T		4	17.0	89	85	134.4	83.23	185.4	4,604	20,942	102	46
	0002	90	80	MA	T	1		12.0	75	54	33.6	37.15					
2039		80				5	16.0	85	75	168.1	120.38	185.4	4,604	20,942	102	46	
2040	0001	90	80	DF	T	1		30.0	87	115	33.6	6.85	20.5	1,391	6,779	31	15
	0002	90	80	DF	T	1		23.5	89	105	33.6	11.16	33.5	1,317	6,249	29	14
	0003	90	80	SP	L	1		37.5	86	116	33.6	4.38	17.5	1,230	6,442	27	14
	0004	90	80	MA	T	1		15.0	75	30	33.6	27.39					
	0005	90	80	MA	T	1		16.0	75	30	33.6	24.07					
2040		80				5		20.4	79	54	168.1	73.85	71.5	3,938	19,469	87	43
2041	0001	90	80	DF	T		4	17.0	89	85	134.4	83.23	185.4	4,604	20,942	102	46
	2041	80				4	17.2	89	85	134.4	83.23	185.4	4,604	20,942	102	46	

TC PLOTTREELIST				Plot Tree List - Volumes										Page	2		
				Project				LONDON				Date	11/14/2017				
TWP	RGE	SC	TRACT		TYPE		ACRES		PLOTS		TREES		CRUISED DATE				
33S	06W	28	AREA 2		CC		51.00		23		58		7/1/2017				
Plot	Tree				Trees		16'	Tot	BA	Trees	Logs	Net	Net	Total			
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
2042	0001	90	80	DF	T	1		19.0	89	90	33.6	17.07	34.1	1,142	4,268	25	9
	0002	90	80	DF	T	1		15.0	87	79	33.6	27.39	54.8	1,004	4,382	22	10
	0003	90	80	DF	T	1		19.0	89	90	33.6	17.07	34.1	1,142	4,268	25	9
	0004	90	80	DF	T	1		31.0	86	126	33.6	6.41	25.6	1,437	7,887	32	17
2042		80				4		19.0	88	89	134.4	67.94	148.7	4,724	20,804	105	46
2043	0001	90	80	DF	T		4	17.0	89	85	134.4	83.23	185.4	4,604	20,942	102	46
	0002	90	80	IC	T		1										
	0003	90	80	MA	T		1	12.0	75	54	33.6	37.15					
2043		80				6	16.0	85	75	168.1	120.38	185.4	4,604	20,942	102	46	
2044	0001	90	80	DF	T	1		12.0	92	73	33.6	42.79	85.6	931	3,851	21	9
	0002	90	80	DF	T	1		27.0	89	122	33.6	8.45	25.4	1,552	7,861	34	17
	0003	90	80	DF	T	1		20.0	89	103	33.6	15.41	46.2	1,255	6,162	28	14
2044		80				3	16.7	91	86	100.8	66.65	157.2	3,739	17,875	83	40	
2045	0001	90	80	DF	T		4	17.0	89	85	134.4	83.23	185.4	4,604	20,942	102	46
	2045		80				4	17.2	89	85	134.4	83.23	185.4	4,604	20,942	102	46
2046	0001	90	80	DF	L	1		36.0	85	138	33.6	4.75	19.0	1,588	8,511	35	19
	0002	90	80	DF	T	1		14.0	87	85	33.6	31.44	62.9	1,001	4,087	22	9
	0003	90	80	DF	T	1		20.0	87	111	33.6	15.41	46.2	1,339	6,008	30	13
	0004	90	80	DF	T	1		28.0	82	104	33.6	7.86	15.7	505	1,886	11	4
2046		80				4	20.4	86	98	134.4	59.46	143.8	4,433	20,493	98	45	
2047	0001	90	80	DF	T		2	17.0	89	85	67.2	41.61	92.7	2,302	10,471	51	23
	0002	90	80	PP	T	1		13.0	83	84	33.6	36.46	72.9	898	3,282	20	7
2047		80				1	2	15.4	86	85	100.8	78.08	165.6	3,200	13,753	71	30
2048	0001	90	80	MA	T	1		24.0	80	69	33.6	10.70					
	0002	90	80	MA	T	1		15.0	80	47	33.6	27.39					
	0003	90	80	DF	T	1		16.0	87	73	33.6	24.07	48.1	922	3,851	20	9
	0004	90	80	MA	T	1		12.0	80	60	33.6	42.79					
	0005	90	80	MA	T	1		10.0	80	48	33.6	61.62					
	0006	90	80	MA	T	1		10.0	80	48	33.6	61.62					
	0007	90	80	DF	T	1		14.0	87	83	33.6	31.44	62.9	992	4,087	22	9
	0008	90	80	DF	T	1		10.0	87	73	33.6	61.62	123.2	792	3,697	18	8
2048		80				8	12.4	83	60	268.9	321.26	234.3	2,706	11,636	60	26	
2049	0001	90	80	DF	T		1	17.0	89	85	33.6	20.81	46.4	1,151	5,236	26	12
	0002	90	80	PP	T	1		28.0	90	124	33.6	7.86	23.6	1,449	7,310	32	16
2049		80				1	1	20.7	89	96	67.2	28.67	69.9	2,600	12,545	58	28
2050	0001	90	80	MA	T	1		26.0	82	61	33.6	9.12					
	0002	90	80	MA	T	1		11.0	63	60	33.6	50.93					
	0003	90	80	MA	T	1		8.0	67	64	33.6	96.29					
	0004	90	80	DF	T	1		21.0	90	102	33.6	13.97	41.9	1,275	5,869	28	13
	0005	90	80	DF	T	1		21.0	90	113	33.6	13.97	41.9	1,403	6,707	31	15
2050		80				5	12.9	70	69	168.1	184.28	83.8	2,678	12,576	59	28	
2051	0001	90	80	DF	T		6	17.0	89	85	201.7	124.84	278.1	6,906	31,414	153	70
	0002	90	80	MA	T		3	12.0	75	54	100.8	111.46					
	0003	90	80	PP	T	1		19.0	84	93	33.6	16.78	38.2	1,212	5,496	27	12
2051		80				10	15.6	83	72	336.1	253.08	316.3	8,118	36,910	180	82	
2052	0001	90	80	MA	T	1		16.0	90	65	33.6	24.07					
	0002	90	80	DF	T	1		16.5	87	77	33.6	22.63	45.3	955	3,622	21	8
	0003	90	80	DF	T	1		22.0	87	105	33.6	12.73	38.2	1,257	5,729	28	13

TC PLOTTREELIST					Plot Tree List - Volumes										Page	3	
					Project					LONDON					Date	11/14/2017	
TWP	RGE	SC	TRACT		TYPE		ACRES		PLOTS		TREES		CRUISED DATE				
33S	06W	28	AREA 2		CC		51.00		23		58		7/1/2017				
Plot	Tree					Trees		16'	Tot	BA	Trees	Logs	Net	Net	Total		
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
2052	0004	90	80	DF	T	1		32.0	87	125	33.6	6.02	24.1	1,491	7,883	33	17
	0005	90	80	DF	T	1		18.5	89	85	33.6	18.01	36.0	1,022	3,781	23	8
	0006	90	80	DF	L	1		38.5	70	125	33.6	4.16	16.6	1,336	5,072	30	11
2052			80			6		20.5	87	85	201.7	87.62	160.2	6,060	26,087	134	58
TYPE			80			58	52	16.6		77	159.3	105.78	172.8	4,617	21,176	2,355	1,080

TC PSTATS			PROJECT STATISTICS						PAGE	1		
			PROJECT			LONDON			DATE	11/14/2017		
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt	
33S	06	28	AREA 2	CC		51.00		23	110	S	W	
					TREES	ESTIMATED		PERCENT				
			PLOTS	TREES	PER PLOT		TREES	SAMPLE				
TOTAL			23	110	4.8							
CRUISE			14	58	4.1		5,395		1.1			
DBH COUNT												
REFOREST												
COUNT			9	49	5.4							
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
			TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR-L			4	.9	35.5	128	1.0	5.8	1,288	1,288	262	262
DOUG FIR-T			35	71.5	17.2	85	27.8	115.4	17,983	17,983	3,953	3,953
MADRONE-T			12	29.1	12.9	35	7.3	26.3				
PONDEROS-L			2	.4	34.7	120	0.5	2.9	561	561	109	109
PONDEROS-T			3	2.9	19.2	75	1.3	5.8	956	956	211	211
SUG.PINE-L			1	.2	37.5	116	0.2	1.5	280	280	53	53
SUG.PINE-T			1	.8	18.0	60	0.3	1.5	108	108	29	29
TOTAL			58	105.8	16.6	71	39.1	159.3	21,176	21,176	4,617	4,617
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL	68.1	COEFF		SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR-L		17.7	10.1	1,355	1,508	1,660						
DOUG FIR-T		86.2	14.6	380	445	509						
MADRONE-T												
PONDEROS-L		7.3	6.9	1,169	1,255	1,341						
PONDEROS-T		75.0	51.9	321	667	1,013						
SUG.PINE-L												
SUG.PINE-T												
TOTAL		108.0	14.2	410	478	545			465	116	52	
CL	68.1	COEFF		SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR-L		9.0	5.1	293	309	325						
DOUG FIR-T		75.2	12.7	82	94	106						
MADRONE-T												
PONDEROS-L		11.3	10.6	217	243	268						
PONDEROS-T		72.3	50.0	71	141	212						
SUG.PINE-L												
SUG.PINE-T												
TOTAL		101.2	13.3	86	99	112			409	102	45	
CL	68.1	COEFF		TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
DOUG FIR-L		224.5	47.8	0	1	1						
DOUG FIR-T		59.6	12.7	62	71	81						
MADRONE-T		189.2	40.3	17	29	41						
PONDEROS-L		479.6	102.2		0	1						
PONDEROS-T		284.2	60.5	1	3	5						
SUG.PINE-L		479.6	102.2		0	0						
SUG.PINE-T		479.6	102.2		1	2						
TOTAL		64.0	13.6	91	106	120			171	43	19	
CL	68.1	COEFF		BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
33S	06	28	AREA 2	CC	51.00	23	110	S	W		
			DOUG FIR-L	222.8	47.5	3	6	9			
			DOUG FIR-T	44.6	9.5	104	115	126			
			MADRONE-T	167.7	35.7	17	26	36			
			PONDEROS-L	479.6	102.2		3	6			
			PONDEROS-T	222.8	47.5	3	6	9			
			SUG.PINE-L	479.6	102.2		1	3			
			SUG.PINE-T	479.6	102.2		1	3			
			TOTAL	35.5	7.6	147	159	171	53	13	6
CL 68.1			COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1.0			VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
			DOUG FIR-L	227.5	48.5	664	1,288	1,912			
			DOUG FIR-T	45.3	9.7	16,247	17,983	19,719			
			MADRONE-T								
			PONDEROS-L	479.6	102.2		561	1,134			
			PONDEROS-T	232.0	49.4	484	956	1,428			
			SUG.PINE-L	479.6	102.2		280	566			
			SUG.PINE-T	479.6	102.2		108	217			
			TOTAL	40.0	8.5	19,372	21,176	22,979	67	17	7
CL 68.1			COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1.0			VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
			DOUG FIR-L	223.4	47.6	137	262	386			
			DOUG FIR-T	45.0	9.6	3,574	3,953	4,333			
			MADRONE-T								
			PONDEROS-L	479.6	102.2		109	220			
			PONDEROS-T	226.5	48.3	109	211	313			
			SUG.PINE-L	479.6	102.2		53	108			
			SUG.PINE-T	479.6	102.2		29	59			
			TOTAL	38.7	8.2	4,237	4,617	4,998	63	16	7

TC		PLOGSTVB		Log Stock Table - MBF																	
T33S R06W S28 TyCC20.00				Project:		LONDON												Page		1	
				Acres		20.00												Date		11/9/2017	
																		Time		12:46:42PM	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches													
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
DF	T	DO	2M	34	25	25	11.5					8	17								
DF	T	DO	2M	35	8	8	3.7						8								
DF	T	DO	2M	40	8	8	3.9						8								
DF	T	DO	3M	20	2	2	1.1				2										
DF	T	DO	3M	22	3	3	1.6		1			3									
DF	T	DO	3M	26	5	5	2.4				5										
DF	T	DO	3M	34	110	110	50.5			11	45	39	7	7							
DF	T	DO	4M	12	0	0	.1		0												
DF	T	DO	4M	13	1	1	.3		1												
DF	T	DO	4M	14	1	1	.4		1												
DF	T	DO	4M	15	1	1	.6		1												
DF	T	DO	4M	17	1	1	.3		1												
DF	T	DO	4M	19	3	3	1.5		3												
DF	T	DO	4M	21	1	1	.2		1												
DF	T	DO	4M	22	3	3	1.6		1			3									
DF	T	DO	4M	23	1	1	.3		1												
DF	T	DO	4M	24	2	2	.9		2												
DF	T	DO	4M	26	2	2	.8		2												
DF	T	DO	4M	27	2	2	.8		2												
DF	T	DO	4M	28	2	2	.9		2												
DF	T	DO	4M	30	12	12	5.5		5			6									
DF	T	DO	4M	31	2	2	.8		2												
DF	T	DO	4M	33	4	4	1.8		4												
DF	T	DO	4M	34	15	15	6.7		12		3										
DF	T	DO	4M	36	2	2	.8		2												
DF	T	DO	4M	38	2	2	.9		2												
DF		Totals			217	217	96.1		44	11	56	51	14	40							
OK	L	DO	4M	32	1	1	100.0		1												
OK		Totals			1	1	.3		1												
MA	T	DO	4M	18	2	2	32.0		2												
MA	T	DO	4M	34	1	1	21.3		1												
MA	T	DO	4M	39	2	2	46.6		2												
MA		Totals			5	5	2.3		5												
IC	L	DO	3M	34	3	3	87.5					3									
IC	L	DO	4M	28	0	0	12.5		0												

TC		PLOGSTVB		Log Stock Table - MBF															
T33S R06W S28 TyCC20.00				Project:		LONDON								Page		2			
				Acres		20.00								Date		11/9/2017			
														Time		12:46:42PM			
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7 8-9		10-11	12-13	14-15 16-19		20-23	24-29	30-39 40+	
IC		Totals		3		3	1.3	0				3							
Total		All Species		226		226	100.0	50		11 56		51 17		40					

TC PLOTTREELIST																	
Plot Tree List - Volumes														Page	1		
Project LONDON														Date	11/9/2017		
TWP	RGE	SC	TRACT			TYPE			ACRES		PLOTS		TREES		CRUISED DATE		
33S	06W	28	AREA 3-ADDED			CC			20.00		17		36		7/1/2017		
Plot	Tree				Trees		16'	Tot	BA	Trees	Logs	Net	Net	Total			
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
3000	0001	85	75	DF	T	1		23.5	83	106	33.6	11.16	33.5	1,196	5,021	14	6
	0002	85	75	DF	T	1		22.5	82	104	33.6	12.17	36.5	1,292	4,504	15	5
	0003	85	75	DF	T	1		21.5	80	95	33.6	13.33	40.0	1,122	4,133	13	5
	0004	85	75	DF	T	1		16.0	80	79	33.6	24.07	48.1	955	3,370	11	4
3000		75				4		20.1	81	92	134.4	60.73	158.1	4,566	17,028	54	20
3001	0001	85	75	DF	T		3	14.0	83	71	100.8	84.67	168.2	2,843	10,433	33	12
	3001	75					3	14.8	83	71	100.8	84.67	168.2	2,843	10,433	33	12
3002	0001	85	75	DF	T	1		9.0	82	52	33.6	76.08	76.1	554	2,282	7	3
	0002	85	75	DF	T	1		10.0	82	55	33.6	61.62	123.2	714	2,465	8	3
	0003	85	75	DF	T	1		14.0	84	63	33.6	31.44	62.9	778	2,515	9	3
	0004	85	75	DF	T	1		10.0	83	55	33.6	61.62	123.2	606	2,465	7	3
	0005	85	75	DF	T	1		12.0	86	60	33.6	42.79	85.6	675	2,568	8	3
3002		75				5		10.6	83	56	168.1	273.56	471.0	3,327	12,295	39	14
3003	0001	85	75	DF	T		2	14.0	83	71	67.2	56.45	112.1	1,895	6,956	22	8
	3003	75					2	14.8	83	71	67.2	56.45	112.1	1,895	6,956	22	8
3004	0001	85	75	DF	T	1		17.5	81	85	33.6	20.12	40.2	1,095	3,823	13	4
	0002	85	75	DF	T	1		15.0	79	65	33.6	27.39	54.8	834	2,465	10	3
	0003	85	75	DF	T	1		17.0	82	85	33.6	21.32	42.6	1,009	3,625	12	4
	0004	85	75	DF	T	1		18.0	82	87	33.6	19.02	38.0	1,057	3,614	12	4
	0005	85	75	DF	T	1		23.0	80	102	33.6	11.65	34.9	1,140	4,194	13	5
3004		75				5		17.6	81	82	168.1	99.50	210.7	5,134	17,720	60	21
3005	0001	85	75	DF	T		1	14.0	83	71	33.6	28.22	56.1	948	3,478	11	4
	0002	85	75	CQ	T	1		18.0	20	20	33.6	19.02					
	0003	85	75	OK	L	1		12.0	99	17	33.6	42.79					
	0004	85	75	MA	T	1		14.0	99	17	33.6	31.44					
	0005	85	75	DF	T		2	14.0	83	71	67.2	56.45	112.1	1,895	6,956	22	8
3005		75				3	3	14.4	83	43	201.7	177.93	168.2	2,843	10,433	33	12
3006	0001	85	75	DF	T	1		16.0	85	78	33.6	24.07	48.1	947	3,851	11	5
	0002	85	75	DF	T	1		17.0	86	90	33.6	21.32	42.6	1,068	4,051	13	5
	0003	85	75	DF	T	1		18.0	83	96	33.6	19.02	57.1	1,180	4,565	14	5
3006		75				3		16.9	85	87	100.8	64.41	147.8	3,195	12,467	38	15
3007	0001	85	75	DF	T		4	14.0	83	71	134.4	112.90	224.2	3,791	13,911	45	16
	3007	75					4	14.8	83	71	134.4	112.90	224.2	3,791	13,911	45	16
3008	0001	85	75	DF	T	1		12.0	82	66	33.6	42.79	85.6	828	2,996	10	4
	0002	85	75	DF	T	1		15.0	85	75	33.6	27.39	54.8	893	3,560	11	4
	0003	85	75	IC	L	1		24.0	79	74	33.6	10.70	21.4	897	2,568	11	3
	0004	85	75	DF	T	1		15.0	80	75	33.6	27.39	27.4	777	2,739	9	3
3008		75				4		15.1	82	71	134.4	108.27	189.1	3,396	11,862	40	14
3009	0001	85	75	DF	T		9	14.0	83	71	302.5	254.02	504.6	8,530	31,300	100	37
	0002	85	75	MA	T	1		11.0	80	62	33.6	50.93	50.9	791	2,037	9	2
3009		75				1	9	14.2	82	69	336.1	304.95	555.5	9,321	33,337	110	39
3010	0001	85	75	DF	T	1		22.0	85	95	33.6	12.73	38.2	1,218	5,220	14	6
	0002	85	75	MA	T	1		11.0	60	25	33.6	50.93	50.9	422	1,019	5	1
3010		75				2		13.9	65	39	67.2	63.66	89.1	1,640	6,239	19	7
3011	0001	85	75	MA	L												
	3011	0.00															

TC PLOTTREELIST				Plot Tree List - Volumes										Page	2		
				Project		LONDON						Date	11/9/2017				
TWP	RGE	SC	TRACT		TYPE		ACRES		PLOTS		TREES		CRUISED DATE				
33S	06W	28	AREA 3-ADDED		CC		20.00		17		36		7/1/2017				
Plot	Tree				Trees		16'	Tot	BA	Trees	Logs	Net	Net	Total			
No.	No.	Age	SI	Spp	St	Me.	Ct.	DBH	FF	Ht.	/Ac.	/Ac.	/Ac.	CuFt/Ac.	BdFt/Ac.	CUNITS	MBF
3012	0001	85	75	DF	T	1		15.0	84	81	33.6	27.39	54.8	999	3,560	12	4
	0002	85	75	MA	T	1		23.0	70	40	33.6	11.65	11.6	702	466	8	1
	0003	85	75	OK	L	1		17.0	70	40	33.6	21.32	21.3	649	640	8	1
3012			75			3		17.5	76	59	100.8	60.36	87.7	2,350	4,666	28	5
3013	0001	85	75	DF	T		6	14.0	83	71	201.7	169.35	336.4	5,686	20,867	67	25
3013			75				6	14.8	83	71	201.7	169.35	336.4	5,686	20,867	67	25
3014	0001	85	75	DF	T	1		21.5	86	95	33.6	13.33	40.0	1,132	4,266	13	5
	0002	85	75	DF	T	1		13.0	86	65	33.6	36.46	72.9	756	2,552	9	3
3014			75			2		15.7	86	73	67.2	49.79	112.9	1,887	6,818	22	8
3015	0001	85	75	XXX													
3015												0.00					
3016	0001	85	75	DF	T	1		16.0	81	78	33.6	24.07	48.1	933	3,129	11	4
	0002	85	75	MA	T	1		23.0	70	40	33.6	11.65	11.6	702	466	8	1
	0003	85	75	MA	T	1		18.0	70	20	33.6	19.02	19.0	326	380	4	0
	0004	85	75	DF	T	1		16.0	83	68	33.6	24.07	48.1	884	2,889	10	3
3016			75			4		17.7	77	55	134.4	78.81	127.0	2,845	6,864	33	8
TYPE			75			36	27	14.8		65	124.6	103.84	185.8	3,219	11,288	644	226

TC PSTATS			PROJECT STATISTICS						PAGE	1		
			PROJECT			LONDON			DATE	11/9/2017		
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt		
33S	06	28	AREA 3-ADDED	CC	20.00		17	63	S	W		
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			17	63	3.7							
CRUISE			11	36	3.3	2,077	1.7					
DBH COUNT												
REFOREST												
COUNT			4	15	3.8							
BLANKS			2									
100 %												
STAND SUMMARY												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T			26	88.0	14.8	71	27.3	104.8	10,842	10,842	2,955	2,955
MADRONE-T			6	10.3	14.5	28	3.1	11.9	257	257	173	173
OR W OAK-L			2	3.8	13.9	20	1.1	4.0	38	38	38	38
CHINQUAP-T			1	1.1	18.0	20	0.5	2.0				
INC CED-L			1	.6	24.0	74	0.4	2.0	151	151	53	53
TOTAL			36	103.8	14.8	64	32.3	124.6	11,288	11,288	3,219	3,219
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL	68.1	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR-T			69.1	13.8	152	177	201					
MADRONE-T			61.2	27.3	19	27	34					
OR W OAK-L			141.4	132.4		15	35					
CHINQUAP-T												
INC CED-L												
TOTAL			89.6	14.9	119	139	160	321	80	36		
CL	68.1	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR-T			64.6	12.9	41	48	54					
MADRONE-T			98.6	43.9	15	27	39					
OR W OAK-L			141.4	132.4		15	35					
CHINQUAP-T												
INC CED-L												
TOTAL			74.9	12.5	37	42	47	224	56	25		
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR-T			89.7	22.4	68	88	108					
MADRONE-T			178.5	44.6	6	10	15					
OR W OAK-L			299.7	74.9	1	4	7					
CHINQUAP-T			412.3	103.0		1	2					
INC CED-L			412.3	103.0		1	1					
TOTAL			64.7	16.1	87	104	121	177	44	20		
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR-T			73.4	18.3	86	105	124					
MADRONE-T			171.8	42.9	7	12	17					
OR W OAK-L			282.3	70.5	1	4	7					
CHINQUAP-T			412.3	103.0		2	4					
INC CED-L			412.3	103.0		2	4					
TOTAL			50.3	12.6	109	125	140	107	27	12		

PROJECT STATISTICS**PROJECT LONDON**

DATE 11/9/2017

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
33S	06	28	AREA 3-ADDED	CC	20.00	17	63	S	W

CL	68.1	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-T		72.8	18.2	8,872	10,842	12,813			
MADRONE-T		217.5	54.3	117	257	397			
OR W OAK-L		412.3	103.0		38	76			
CHINQUAP-T									
INC CED-L		412.3	103.0		151	307			
TOTAL		67.1	16.8	9,396	11,288	13,180	191	48	21

CL	68.1	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR-T		73.2	18.3	2,414	2,955	3,495			
MADRONE-T		196.1	49.0	88	173	258			
OR W OAK-L		412.3	103.0		38	78			
CHINQUAP-T									
INC CED-L		412.3	103.0		53	107			
TOTAL		61.9	15.5	2,721	3,219	3,717	163	41	18

TIMBER SALE SUMMARY

London Broil

Contract No. 341-18-92

1. **Type of Sale:** Recovery sale, sealed bid auction of 71 acres of regeneration harvest and 74 acres of commercial thinning of 85 year old Douglas-fir and mixed conifers.
2. **Revenue Distribution:** 100% BOF
3. **Sale Acreage:** For the sale, 145 net acres were used for the cruise expansion. Acreage was determined with ArcGIS 10.1 and GPS traverse.
4. **Volume:** The take trees in Area I will be determined by a Basal Area prescription of 120-140 SF BA. The take trees in Areas I and II will be all trees between 8"-35"DBH, except for wildlife trees marked with red paint and Oak trees over 20"DBH. Removal of hardwoods is optional in in Areas I and II.

SPECIES	2 SAW	3 SAW	4 SAW	5 SAW	NET VOL (MBF)
Douglas-fir	328	736	244	0	1,308
Pond. Pine	0	37	7	0	44
Sugar Pine	0	4	0.8	0	5
Madrone	0	0	5	0	5
Total	328	777	257	0	1,362

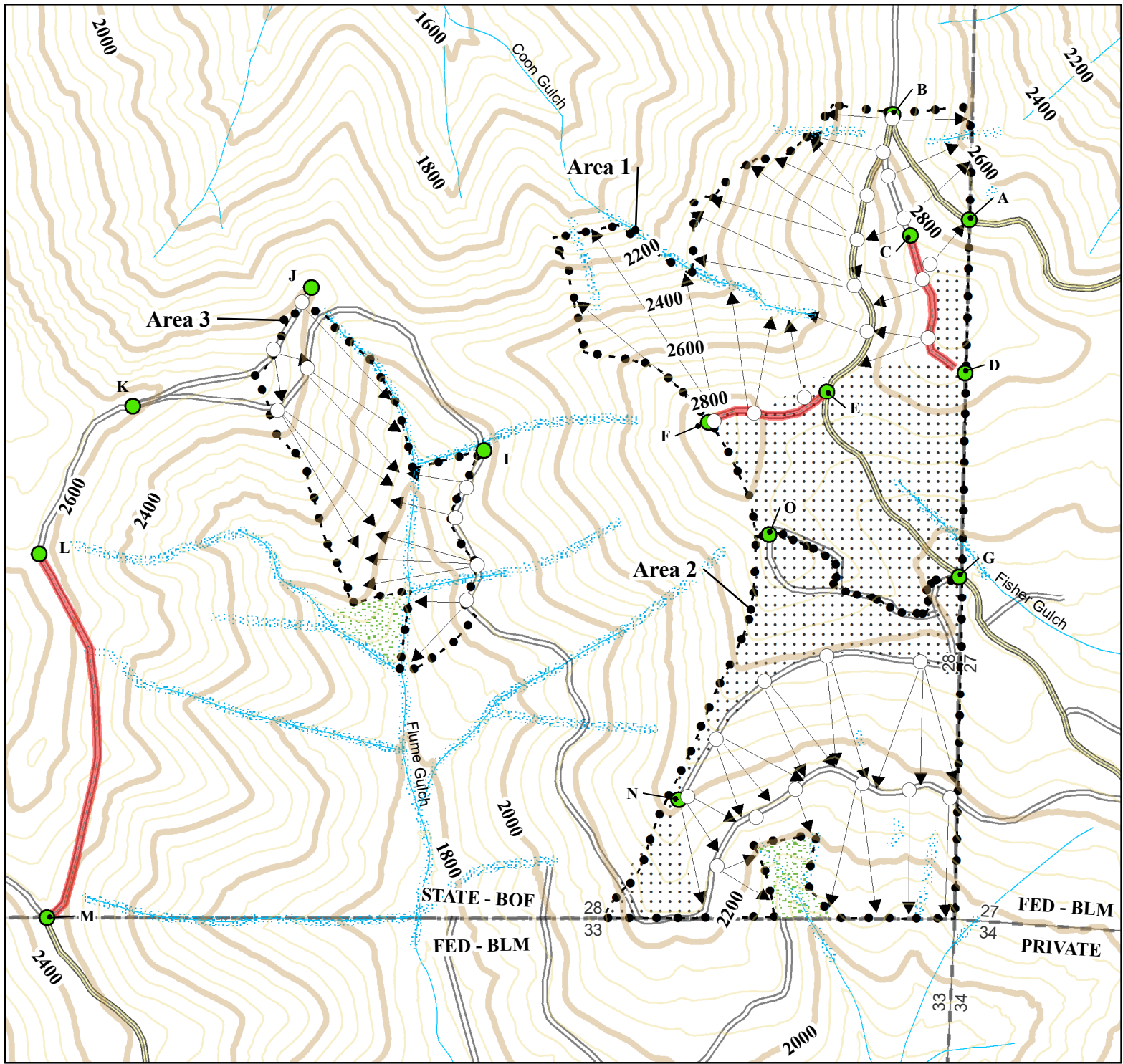
5. **Cruise Data:** The total volume above is measured to 11% sampling error, meaning the actual volume will fall between 1,211 MBF and 1,512 MBF (68% of the time). The volume of individual species will be more variable due to the smaller sample compared to the total volume sample. See the cruise report for more detail.
6. **Timber Description:** The timber has been cruised to resemble the removal of the smaller trees in suppressed and intermediate canopy positions and to release dominant and co-dominant trees within the stand. The averages DBH for take trees are: Douglas-fir 17.1", Pond. Pine 19.2" and Sugar Pine 18.0". In the cruise report there are attachments detailing the Project Statistics, Log Stock Table Volumes, and Plot Tree List Volumes.
7. **Topography and Logging Method:** The majority of this harvest will be cable logging (75%) due to slopes in excess of >35%, and some areas with slopes less than <35% will be ground based logging (25%). See logging plan map Exhibit.
8. **Access:** Access to both sides of the sale are through BLM controlled roads. The Purchaser will need to have a license agreement with the BLM to haul logs prior to the sale operations. The appraisal includes road blading and maintenance during the sale. A winter haul option is available at the Purchaser's expense as specified in the contract.
9. **Projects:**
 - Project 1: Road improvements throughout the sale area = \$4,599
 - Project 2: Road Construction in Area I = \$4,987

- Project 3: Road construction on the Western side of the sale to Area III = \$48,885
 - Projects Combined Total: \$60,036.00

10. Road Maintenance: The appraisal includes \$1.98/MBF for road maintenance (grading, pulling ditches, etc.).

11. Other Costs: The appraisal includes \$7/ MBF for scaling, branding and painting. The costs that are not accounted for in the appraisal are the responsibility of the Purchaser.

12. Slash Disposal: Purchaser will pile slash on landings with an excavator or log loader away from residual trees and sort out firewood into a separate pile. ODF is responsible for disposing of the slash piles.



- Timber Sale Boundary

GTR

Landings

Project Points

Road Construction

Contour

200 Index

50ft interval

Roads

Roads

Haul Route
- Perennial

Seasonal

Unknown

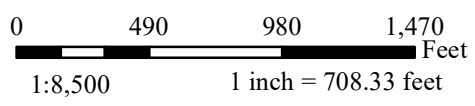
Stream Buffer

Logging Method

Ground

Cable

LOGGING PLAN
Sale No. 341-18-92
London Broil
Section 28, T33S, R6W, W.M.
Josephine County, Oregon
Regulated Use Area SW-3
100% Board of Forestry Lands
Net Acres - 145



Area	CC	Thin	GTR
1	--	74	--
2	51	--	2
3	20	--	2
Total	71	74	4

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.