



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Dogwood Sale 341-02-56

District: Klamath/Lake

Date: 4/8/02

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$552,823.64	\$0.00	\$552,823.64
		Project Work	(\$68,360.00)
		Advertised Value	\$484,463.64



Timber Sale Appraisal Timber Description Dogwood Sale 341-02-56

"STEWARDSHIP IN FORESTRY"

District: Klamath/Lake

Location: Portions of Sections 17,18,19, & 20, T32S, R7.5E

Date: 4/8/02

Stand Stocking: 40%

Species	Avg. DBH	Amortized%	Recovery%
White Fir	18	0	95
Sugar Pine	22	0	97
Ponderosa Pine	13	0	97
Lodgepole Pine	12	0	95

Volume by Grade	White Fir	Sugar Pine	Ponderosa Pine	Lodgepole Pine	Total
CR 8" - 14"	541	4	547	133	1,225
CR 14" - 22"	592	8	297	0	897
CR 22"+	509	7	54	0	570
Total	1,642	19	898	133	2,692

Comments: Pond Values Used: 1st Quarter 2002 & Local Pond Values
Other Costs (PlusP & R) include:
Dust Abatement \$13,896.00
Brand & Paint \$6000.00



Timber Sale Appraisal

Logging Conditions

Dogwood

Sale 341-02-56

"STEWARDSHIP IN FORESTRY"

Combination#: 1	White Fir	16.00%	
	Sugar Pine	11.00%	
	Ponderosa Pine	42.00%	
	Lodgepole Pine	96.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding Yes
Logging System:	Wheel Skidder		Process: Feller Buncher
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	12		Bd. Ft./Load: 3,500
Cost/MBF:	\$79.86		
Machines:	Feller Buncher w/ Delimber		
	Log Loader (B)		
	Stroke Delimber (B)		
	Tire Skidder		
Combination#: 2	White Fir	84.00%	
	Sugar Pine	89.00%	
	Ponderosa Pine	58.00%	
	Lodgepole Pine	4.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding Yes
Logging System:	Wheel Skidder		Process: Manual Falling/Delimiting
Tree Size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	12		Bd. Ft./Load: 4,200
Cost/MBF:	\$59.54		
Machines:	Log Loader (B)		
	Tire Skidder		



Timber Sale Appraisal

Logging Costs

Dogwood

Sale 341-02-56

"STEWARDSHIP IN FORESTRY"

Date: 4/8/02

Operating Seasons: 1.0

Profit & Risk: 15%

Project Costs: \$68,360

Other Costs (P/R): \$19,896

Slash Disposal: \$0

Other Costs: \$0

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Road Maintenance: \$1.01

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
White Fir	\$0.00	3.0	4.0
Sugar Pine	\$0.00	3.0	3.5
Ponderosa Pine	\$0.00	3.0	3.5
Lodgepole Pine	\$0.00	2.0	3.0

Local Pond Values

Date	Species	Grade	Value
4/8/02	White Fir	Special Cull	\$75.00
4/8/02	White Fir	Utility	\$75.00
4/8/02	White Fir	CR 8" - 14"	\$320.00
4/8/02	White Fir	CR 14" - 22"	\$340.00
4/8/02	White Fir	CR 22"+	\$340.00
4/8/02	Sugar Pine	CR 8" - 14"	\$295.00
4/8/02	Sugar Pine	CR 14" - 22"	\$465.00
4/8/02	Sugar Pine	CR 22"+	\$540.00
4/8/02	Ponderosa Pine	CR 8" - 14"	\$300.00
4/8/02	Ponderosa Pine	CR 14" - 22"	\$470.00
4/8/02	Ponderosa Pine	CR 22"+	\$560.00
4/8/02	Lodgepole Pine	Camprun	\$270.00
4/8/02	Lodgepole Pine	CR 8" - 14"	\$270.00
4/8/02	Lodgepole Pine	CR 14" - 22"	\$270.00
4/8/02	Lodgepole Pine	CR 22"+	\$270.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Dogwood Sale 341-02-56

Costs	White Fir	Sugar Pine	Ponderosa Pine	Lodgepole Pine
Logging	62.79	61.78	68.07	79.05
Road Maintenance	1.06	1.04	1.04	1.06
Fire Protection	1.01	1.01	1.01	1.01
Hauling	40.37	45.15	45.15	80.84
Other (P/R appl.)	7.39	7.39	7.39	7.39
Profit & Risk	16.89	17.46	18.40	25.40
Slash Disposal	0.00	0.00	0.00	0.00
Scaling	2.00	2.00	2.00	2.00
Other	0.00	0.00	0.00	0.00
Total	131.51	135.83	143.06	196.75

Amortization	0.00	0.00	0.00	0.00
Pond Value	333.41	456.84	371.86	270.00
Stumpage	201.90	321.01	228.80	73.25
Amortized	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Dogwood Sale 341-02-56

Amortized

	White Fir	Sugar Pine	Ponderosa Pine	Lodgepole Pine
MBF	0.00	0.00	0.00	0.00
Value	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Unamortized

	White Fir	Sugar Pine	Ponderosa Pine	Lodgepole Pine
MBF	1,642.00	19.00	898.00	133.00
Value	201.90	321.01	228.80	73.25
Total	331,519.80	6,099.19	205,462.40	9,742.25

Gross Timber Sale Value

Recovery \$552,823.64

Prepared by: Jason Pettigrew

Date: 4/8/02

District: Klamath/Lake

Phone: (541) 883-5681

Summary of Project Work



"STEWARDSHIP IN FORESTRY"

Project # 1: Road Improvement \$49,026.00

3 Road Reshaping & Surfacing
New Construction
Road Reconstruction

**Project # 2: Felling, yarding, and piling of
submerchantable trees and pulp wood \$ 16,661.00**

Project # 3: Tractor Piling of Slash \$ 1,655.00

Project # 4: Road Closures \$ 1,018.00

Total: \$ 68,360.00

Dogwood Cruise Report



SALE NAME: Dogwood

LEGAL DESCRIPTION: T32S. , R7.5E., Portions of Sections 17, 18, 19, & 20.

BOUNDARY LINES:

Unit boundary is posted with "Timber Sale Boundary" signs, marked fluorescent orange paint and fluorescent orange flagging. Area II is posted with "Area II Boundary" signs, marked with fluorescent orange paint, and fluorescent orange flagging. Harvest exclusions (2) are posted with "Timber Sale Boundary" signs, marked with fluorescent orange paint and fluorescent orange flagging.

Required road construction is posted with orange "Right of Way Boundary" signs.

FUND: 100% B.O.F.

ACREAGE:

Area I:	234 acres
Area II:	11 acres
Approximate Sale Acreage:	245 acres

Mapping was accomplished using a Global Positioning System MCV handheld unit, with the data run on the district Geographical Information System Program.

TREATMENT:

Area I is a selection cut, leave tree marked with orange paint.

Area II is a cut tree marked in blue paint.

Wildlife trees are designated with an orange "W".

CRUISE METHOD:

The sale area is comprised of two areas. Area I was a variable plot cruise with all the plots being measure plots. Fixed plot cruise for all submerchantable material (5.0" to 8.0"), with all plots being measure plots. Area II was a 100% cruise with every blue marked cut tree cruised (14 total trees).

BASAL AREA FACTOR: 14

Full point plots taken, 1/50th acre fixed plots for submerchantable material (5.0" to 8.0" DBH)

PLOT DESIGNATION:

Plot centers were established at every plot. White flagging with the corresponding plot number was attached to the plot center to the nearest available tree branch.

SAMPLE SIZE CALCULATIONS:

	CV %	Desired SE %	Acres
Area I	115	15	234

$$\text{Number of Plots} = \frac{T^2 C^2}{A^2}$$

C = Coefficient of Variation in Percent (Taken from inventory data)

T = Number of Standard Errors

A = Desired Sampling Error for a sale of this size and value

$$\text{Number of Plots} = \frac{(1)^2(115)^2}{15^2} = 59 \text{ Plots (Took 61 plots)}$$

$$\sqrt{\frac{(234 \text{ acres})(43,560 \text{ feet}^2/\text{acre})}{60 \text{ Plots}}} = 412 \text{ feet}$$

Measurements and Grading:

- DBH and Height were measured on all "in" trees in the plot.
- All plots were measure plots.
- Pulp volume and sawlog volume cruised.
- See attached species and grade tables for minimum requirements.
- All trees were graded using the segment system.
- Separate fixed plot cruise for all submerchantable material (5" to 8")

TREE HEIGHT:

All trees were measured to a fixed diameter outside bark. This height is usually taken as high up the bole as possible, where the cruiser can clearly see the bole, and the taper remains constant. (Usually 6 or 8 inches). The log segments are broken out and graded accordingly.

MINIMUM D.B.H.:

8.0" D.B.H. for sawlog volume. (Must have a minimum of 20 board feet.)

5.0" D.B.H. for pulp volume.

DIAMETER STANDARDS:

1" diameter class

BTR:

Standard ratios were used. See attached species tables.

FORM FACTOR:

Form factor was measured or estimated at 16' for each tree. Each tree was assigned its own FF.

FORM POINT:

All trees were sighted at D.B.H.

VOLUME COMPUTATION:

All cruise data was input and run at the district on Atterbury's Super Ace program.

CRUISERS: Ed Scheick, Jason Pettigrew

FINAL CRUISE RESULTS:

CV% = 102

SE% = 13.0

TIMBER DESCRIPTION

	Species	Average DBH	Gross Volume (MBF)	Net Volume (MBF)
Area I	White Fir	18	1,653	1,633
	Sugar Pine	22	19	19
	Ponderosa Pine	13	910	896
	Lodgepole Pine	22	135	133
				2,681
Area II	White Fir	24	9	9
	Ponderosa Pine	22	2	2
				11
Total MBF				2,692

(Volumes taken from Species, Sort Grade - Board Foot Volumes Report)

GREEN PULP VOLUME

This volume was obtained from the variable plot cruise (>8" DBH) and the fixed plot cruise (5.0"-8.0"). All material graded green pulp. See grade table for minimum standards. Area II does not contain a green pulp volume.

	Species	Average DBH	Gross Volume (MBF)	Net Volume (MBF)
Area I Fixed Plot	White Fir	6.3	71	71
	Ponderosa Pine	6.6	132	132
	Lodgepole Pine	6.6	33	33
				236
Area I Variable Plot	White Fir		5	5
	Ponderosa Pine		33	33
	Lodgepole Pine		8	8
				46
Total MBF				282

(Volumes taken from Species, Sort Grade -Board Foot Volumes Report)

Species, Sort Grade - Board Foot Volumes (Project)

T32 R7 S20 Ty103 234.00

Project: DGWOOD
Acres 234.00

Area I

Page 1
Date 1/7/2002
Time 1:43:20PM

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
									4-5	6-14	15-21	22+	12-20	21-30	31-35	36-99				
PP	?	?														7		0.00	5.3	
PP	?	CR		33	1.5	3,889	3,829	896		60	33	6	19	12	64	4	23	88	0.79	43.3
PP	?	GP		1		140	140	33	85	15			59	30	11		20	19	0.27	7.2
PP	?	DP		0		8	8	2	100					100			30	30	0.40	.3
PP Totals				34	1.5	4,037	3,977	931	3	59	32	6	20	13	62	4	21	71	0.69	56.1
LP	?	?															8		0.00	1.3
LP	?	CR		5	1.4	577	569	133		100			16	34	35	15	24	54	0.59	10.5
LP		CR GP		0		34	34	8	69	31			31		69		31	57	0.44	.6
LP Totals				5	1.3	611	603	141	4	96			17	32	33	18	23	49	0.56	12.4
WF	?	?															7		0.00	4.4
WF	?	CR		60	1.1	7,066	6,987	1,635		33	36	31	7	7	85	1	27	219	1.43	31.9
WF	?	GP		0		23	23	5	100				27	73			23	20	0.26	1.2
WF Totals				60	1.1	7,089	7,009	1,640	0	33	36	31	7	8	85	1	24	187	1.35	37.5
SP	?	?															7		0.00	.2
SP	?	CR		1	2.8	82	79	19		20	41	39	8	12	80		24	227	1.67	.4
SP Totals				1	2.8	82	79	19		20	41	39	8	12	80		18	141	1.42	.6
Totals					1.3	11,819	11,669	2,731	1	45	33	21	12	11	75	3	22	110	0.93	106.5

TC P5PCSTGR **Species, Sort Grade - Board Foot Volumes (Project)**

T32 R7 S20 Ty103	1.00	Project: DOG	Acres 1.00	<i>Area II</i>	Page 1 Date 1/7/2002 Time 2:23:16PM
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S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre			
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf				
								4-5	6-14	15-21	22+	12-20	21-30	31-35	36-99							
PP	CRCU																					
PP	CRCR		22	1.2	2,430	2,400	2		40	60		19	18	53	10	27	200	1.38				12.0
PP Totals			22	1.2	2,430	2,400	2		40	60		19	18	53	10	20	141	1.32				17.0
WF	CRCU																					
WF	CRCR		78	.2	8,590	8,570	9		17	50	33	2	12	82	4	30	343	1.96				25.0
WF Totals			78	.2	8,590	8,570	9		17	50	33	2	12	82	4	29	330	1.94				26.0
Totals				0.5	11,020	10,970	11		22	52	25	6	13	76	5	25	255	1.75				43.0

TblSortGrade

Sort/Grade Table

Table Name: KLAMATH

Date: 6/27/01

Sort	Grd	Abr	Desc	Fbr	Min Dia	Max Dia	Max Butt	Min Len	Max Len	Defect	Min Vol	Vol Type	Min Ring	Knot Size	Knot Freq	Str	Sap	Min Age	Lbs	Lbs Type	Cords	Cords Type
0		CU	CULL	G	1	0	0	1	0	0	0		0	0	0			0	0		0	
1		CR	CAMPRUN	G	6	0	0	10	0	0	0		0	0	0			0	0		0	
7		GP	GRNPULP	G	3	0	0	10	0	0	0		0	0	0			0	0		0	
8		DP	DEADPULI	G	3	0	0	10	0	0	0		0	0	0			0	0		0	
9		UT	UTILITY	G	8	0	0	12	0	0	0		0	0	0			0	0		0	
1		CR	CAMPRUN	G	1	0	0	1	0	0	0		0	0	0			0	0		0	

Species Table Report

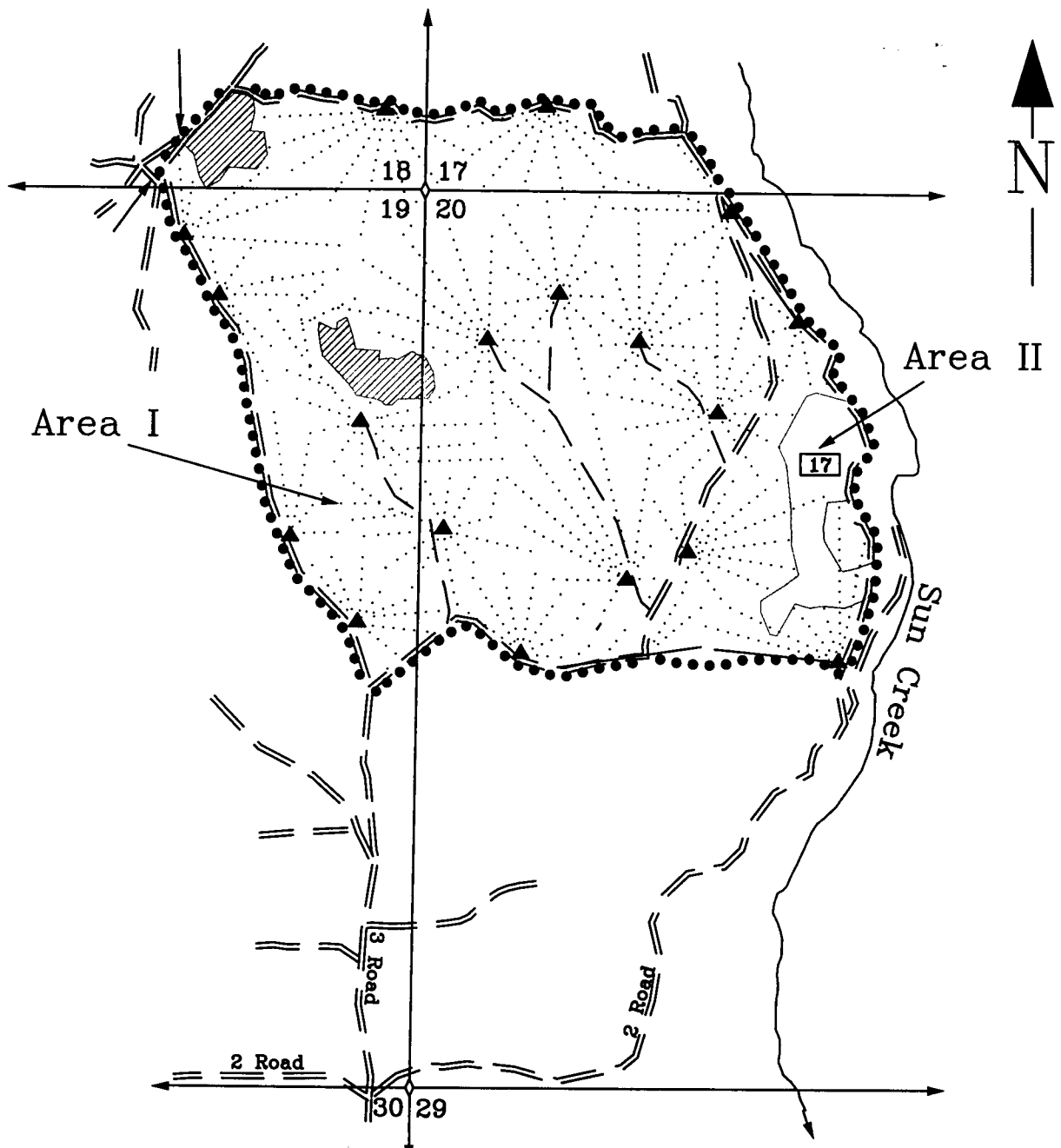
TblSpecies

Date: 6/27/01

Page: 1

Table Name: KL SPECIES

Cod	Abrv	Description	Bark Ratio	A Subo Const	Form Factor	Wood Type	Component	Yield Table	Min Log Dia	Min Log Len	Max Log Len	Log Trim	Max Tree Dia	Max Tree Hgt.	BdFt Rule	CuFt Rule	Weight
1	PP	P PINE	.87	PP	.85	C	C	PP--EQUA--100	3	9	20	1.0	99	200	E	1	LB M
2	WF	WHITE F	.94	NF	.87	C	C	DF--EQUA--050	3	9	20	1.0	99	200	E	1	LB M
3	LP	LP PINE	.96	DF	.9	C	C	LP--EQUA--100	3	9	20	1.0	99	200	E	1	LB M
5	SP	SUG PINE	.87	PP	.84	C	C	PP--EQUA--100	3	9	20	1.0	99	200	E	1	LB M
6	IC	INC CED	.90	SS	.8	C	C	DF--EQUA--050	3	9	20	1.0	99	200	E	1	LB M



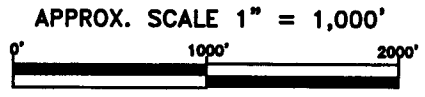
Logging Plan

of Timber Sale No. 341-02-56
Dogwood

Portions of Sections 17, 18, 19, & 20, T32S, R7.5E, W.M
Klamath County, Oregon

- Legend**
- Timber Sale Boundary
 - ← Section Line
 - ◇ Known Land Survey Corner
 - ==== Surfaced Existing Road
 - == Unsurfaced Existing Road
 - - - - - Unsurfaced Road (Construction Required)
 - ~ Type F Stream
 - ▨ Timber Harvest Exclusion Area
 - Skid Trail
 - 17 Number of Marked Trees
 - ▲ Landing

Area I	234 acres
Area II	11 acres
Approximate Sale Acreage	245 acres



PREPARED BY: Jason Pettigrew