



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary By the C Sale 341-02-14

District: Klamath/Lake

Date: 4/23/01

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$202,680.56	\$0.00	\$202,680.56
		Project Work	(\$12,855.00)
		Advertised Value	\$189,825.56



Timber Sale Appraisal Timber Description By the C Sale 341-02-14

"STEWARDSHIP IN FORESTRY"

District: Klamath/Lake

Location: T32S.,R7.5E.,
Portions of Sections 30 & 31
Klamath County, Or.

Date: 4/23/01

Stand Stocking: 40%

Species	Avg. DBH	Amortized%	Recovery%
White Fir	20	0	97
Ponderosa Pine	15	0	97
Lodgepole Pine	11	0	95

Volume by Grade	White Fir	Ponderosa Pine	Lodgepole Pine	Total
Camprun	0	0	230	230
CR 8" - 14"	35	347	0	382
CR 14" - 22"	78	337	0	415
CR 22"+	14	24	0	38
Total	127	708	230	1,065

Comments: Pond Values Used: 1st Quarter 2001 + Local Pond Values
Other Costs (plus P& R):
Dust Abatement: \$9030.00
Brand & Paint: \$3100.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Conditions By the C Sale 341-02-14

Combination#: 1

White Fir	45.00%
Ponderosa Pine	70.00%
Lodgepole Pine	100.00%

Yarding Distance: Short (400 ft) **Downhill Yarding** No
Logging System: Wheel Skidder **Process:** Feller Buncher
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 13 **Bd. Ft./Load:** 3,500
Cost/MBF: \$73.72

Machines:
Feller Buncher w/ Delimber
Log Loader (B)
Stroke Delimber (B)
Tire Skidder

Combination#: 2

White Fir	55.00%
Ponderosa Pine	30.00%

Yarding Distance: Short (400 ft) **Downhill Yarding** No
Logging System: Track Skidder **Process:** Manual Falling/Delimiting
Tree Size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
Loads/Day: 13 **Bd. Ft./Load:** 4,800
Cost/MBF: \$52.33

Machines:
Log Loader (B)
Track Skidder



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs By the C Sale 341-02-14

Date: 4/23/01

Operating Seasons: 1.0

Profit & Risk: 12%

Project Costs: \$12,855

Other Costs (P/R): \$12,130

Slash Disposal: \$0

Other Costs: \$0

Road Maintenance: \$1.71

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

Hauling Costs

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

Local Pond Values

Date	Species	Grade	Value
4/3/01	White Fir	CR 8" - 14"	\$310.00
4/3/01	White Fir	CR 14" - 22"	\$320.00
4/6/01	White Fir	CR 22"+	\$325.00
4/3/01	Ponderosa Pine	CR 8" - 14"	\$280.00
4/3/01	Ponderosa Pine	CR 14" - 22"	\$435.00
4/3/01	Ponderosa Pine	CR 22"+	\$550.00
4/3/01	Lodgepole Pine	Camprun	\$315.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown By the C Sale 341-02-14

Costs	White Fir	Ponderosa Pine	Lodgepole Pine
Logging	61.96	67.30	73.72
Road Maintenance	1.76	1.76	1.80
Fire Protection	2.54	2.54	2.54
Hauling	59.28	45.15	80.84
Other (P/R appl.)	11.39	11.39	11.39
Profit & Risk	16.43	15.38	20.43
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	0.00	0.00	0.00
Total	155.36	145.52	192.72

Amortization	0.00	0.00	0.00
Pond Value	317.80	362.93	315.00
Stumpage	162.44	217.41	122.28
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary By the C Sale 341-02-14

Amortized

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

Unamortized

	White Fir	Ponderosa Pine	Lodgepole Pine
MBF	127.00	708.00	230.00
Value	162.44	217.41	122.28
Total	20,629.88	153,926.28	28,124.40

Gross Timber Sale Value

Recovery \$202,680.56

Prepared by: John Pellissier

Date: 4/23/01

District: Klamath/Lake

Phone: (541) 883-5681

Summary of Project Work

Project #1: Road construction	\$2,500.00
Project #2: Felling yarding, and piling of utility and pulp wood.	\$10,000.00
Project #3: Slash piling/ Lopping	(Included in project #3)
Project #4: Road Closing	\$355.00
Total:	<u>\$12,855.00</u>

CRUISE REPORT

Sale Name: By The C

Sale Area: T. 32 S., R. 71/2 E., Portions of sections 30 and 31.

Fund: 100% BOF

Boundary Lines: Unit boundary is posted with "Timber Sale Boundary" signs, marked with fluorescent orange paint and flagging. Newly constructed road boundaries within the unit are posted with "Right of Way Boundary" signs and yellow paint.

Acreage:

Sale Area:	305 acres
Exclusion Areas:	38 acres
Approximate Sale Acreage:	267 acres

Areas were mapped using GPS, with data run on the district GIS program.

Treatment: Total acreage is marked as a selection cut, cut tree mark with blue paint.
Wildlife trees are designated with orange paint.

Cruise Method:

Variable plot cruise (for all trees ≥ 8.0 "DBH) with all of the plots being measure plots. Fixed plot cruise for all submerch material (5.0 -8.0 DBH), with all of the plots being measure plots.
Measure and grade all trees.

Plot Designation:

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

BAF: 10 BAF:

Full point plots taken, 1/50th acre fixed plots for submerch. material (5.0-8.0 DBH)

Sample Size Calculations:

	CV%	Desired SE%	Acres
Sale area	102.2	15	267

$$N = \frac{T^2 C^2}{A^2}$$

C = Coefficient of Variation in percent (taken from recent inventory data)

T = Number of Standard errors

A = Desired sampling error for a sale of this size and value

Sale area:

$$N = \frac{(1)^2 (102.2)^2}{(15)^2} = 46.4 \quad \text{Took 50 plots} \quad \text{6 x7 chain grid}$$

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 in variable plot ($\geq 8.0''$ dbh)
- See attached species and grade tables for minimum requirements.
- All trees were graded using the segment system.
- Separate fixed plot cruise for all Submerch. Material (5.0''-8.0'' dbh) pulp grade only.

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 7 inches or 25% of dbh) The log segments are then broken out and graded accordingly.

Minimum DBH: 8.0" dbh for sawlog volume

Minimum DBH: 8.0" dbh for sawlog volume
 5.0" dbh for pulp volume

Diameter Standards: 1" diameter class

BTR:

Standard ratios were used. See attached species table for specifics.

Form Factor:

Form factor was measured or estimated at 16' for every tree.

Form Point: All trees were sighted at dbh.

Final Cruise Results:

Sale Area CV% = 65.2 %
 SE% = 8.9%

Cruisers:

John Pellissier, Jason Pettigrew, Ryan Crans.
Cruised January 2001

Volume Computation:

All cruise data was inputted and run at the district level on Atterbury's super ace program.

Timber Description:

Sawlog Volume: This volume was obtained from the variable plot cruise. All material > 8.0" DBH.
All material graded camprun
See grade table for minimum standards.

<u>SPECIES</u>	<u>AVE. DBH</u>	<u>GROSS VOL (MBF)</u>	<u>NET VOL (MBF)</u>
Ponderosa pine	14.7	718	708
White fir	19.6	128	127
Lodgepole pine	11.3	237	230

TOTAL SAWLOG VOLUME -----**1065MBF**

Green Pulp Volume: This volume was obtained from the variable plot cruise (>8.0" DBH) and the fixed plot cruise (5.0'-8.0' DBH)
All material graded green pulp.
See grade table for minimum standards

Variable Plot Volume:

<u>SPECIES</u>	<u>AVE. DBH</u>	<u>GROSS VOL (MBF)</u>	<u>NET VOL (MBF)</u>
Ponderosa pine	14.7	63	63
Lodgepole pine	11.3	44	44

Fixed Plot volume:

<u>SPECIES</u>	<u>AVE. DBH</u>	<u>GROSS VOL (MBF)</u>	<u>NET VOL (MBF)</u>
Ponderosa pine	6.5	27	27
Lodgepole pine	6.4	59	59

TOTAL GREEN PULP VOLUME-----**194 MBF**

(Volumes obtained from Spp, sort,Grade, len%-BDFT Report)

Species Table Report

TblSpecies

Date: 4/30/01

Page: 1

Table Name: KL SPECIES

C od	Abrv	Description	Bark Ratio	A Subo Const	Form Factor	Wood Type	Comp onent	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

TblSortGrade

Sort/Grade Table

Table Name: KLAMATH

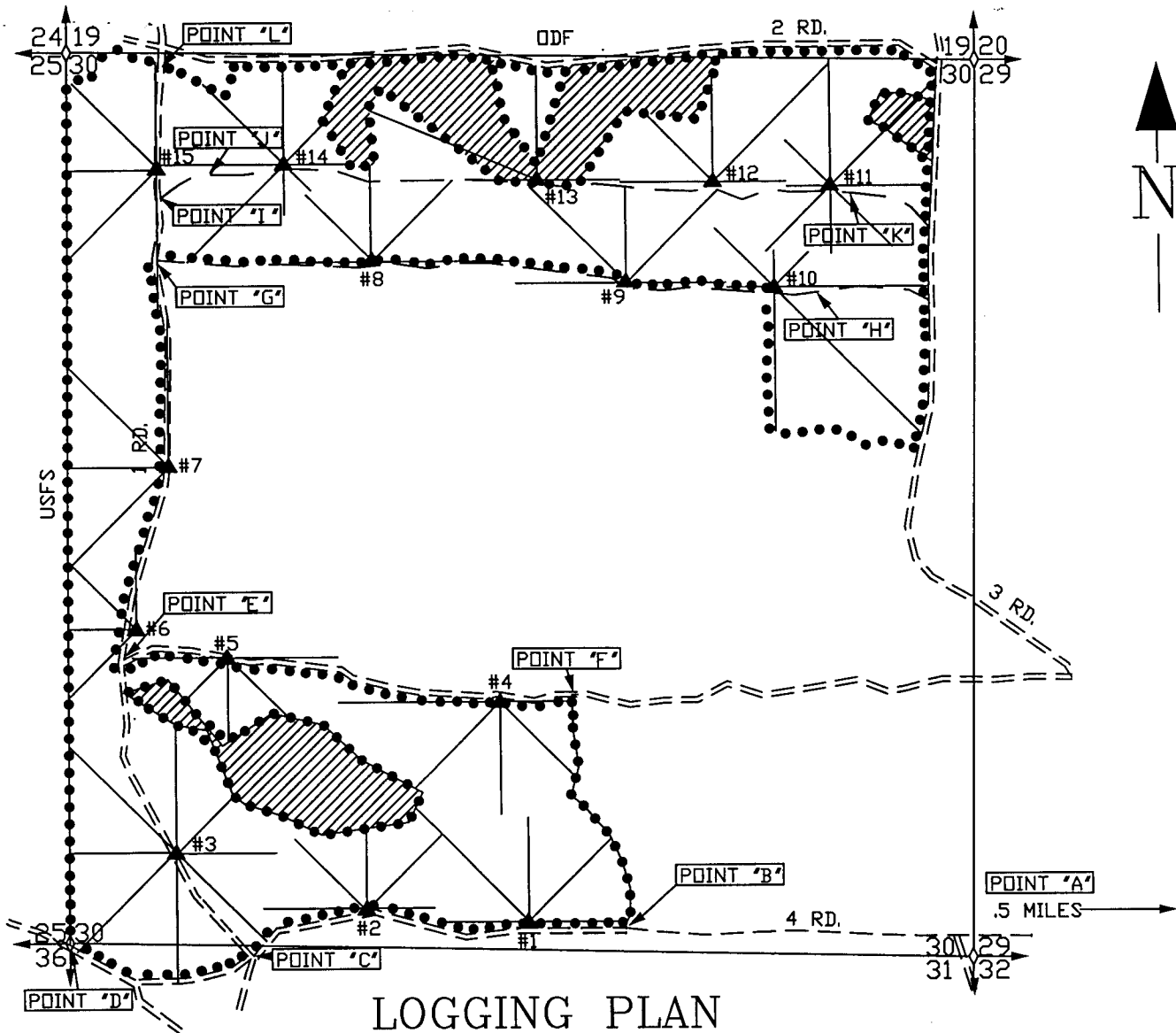
Date: 4/30/01

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	DEADPUL	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	

TC PSTATS		PROJECT STATISTICS					PAGE 1			
		PROJECT BYTHEC					DATE 4/11/2001			
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES			
32S	7.5	30	V-PLOT 8"DIB	116	267.00	54	257			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		54	257	4.8						
CRUISE REFOREST COUNT BLANKS		51	257	5.0	13,032	2.0				
100 %		3								
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
P PINE	157	24.8	14.7	37		29.1	2,925	2,871	627	627
LP PINE	86	22.7	11.3	27		15.9	1,051	1,027	276	276
WHITE F	14	1.2	19.6	56	0	2.6	490	485	93	93
TOTAL	257	48.8	13.4	32		47.6	4,467	4,383	997	997
SD: 1	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
			LOW	AVG	HIGH	5	10	15		
P PINE	180.9	11.3	159	179	199					
LP PINE	195.4	12.2	17	20	22					
WHITE F	530.3	33.1	25	37	50					
TOTAL	149.0	9.3	214	236	258	888	222	99		
SD: 1	COEFF VAR.	S.E.%	SAMPLE TREES - CF			# OF TREES REQ.		INF. POP.		
			LOW	AVG	HIGH	5	10	15		
P PINE	159.0	9.9	31	35	38					
LP PINE	184.2	11.5	5	5	6					
WHITE F	517.9	32.3	5	7	9					
TOTAL	126.1	7.9	43	47	51	636	159	71		
SD: 1	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	10	15		
P PINE	110.3	15.0	21	25	29					
LP PINE	179.2	24.4	17	23	28					
WHITE F	371.3	50.5	1	1	2					
TOTAL	83.6	11.4	43	49	54	280	70	31		
SD: 1	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	10	15		
P PINE	91.4	12.4	25	29	33					
LP PINE	167.9	22.9	12	16	20					
WHITE F	282.2	38.4	2	3	4					
TOTAL	58.3	7.9	44	48	51	136	34	15		
SD: 1	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	10	15		
P PINE	102.2	13.9	2,472	2,871	3,271					
LP PINE	173.6	23.6	784	1,027	1,269					
WHITE F	282.7	38.5	298	485	672					
TOTAL	65.2	8.9	3,994	4,383	4,772	170	42	19		
SD: 1	COEFF VAR.	S.E.%	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	10	15		
P PINE	97.4	13.3	544	627	710					
LP PINE	166.6	22.7	214	276	339					
WHITE F	279.2	38.0	58	93	129					
TOTAL	58.9	8.0	917	997	1,077	139	35	15		

T32S R7.5 S30 T116		T32S R7.5 S30 T116
Twp 32S	Rge 7.5	Sec 30
Tract V-PLOT 8"DIB	Type 116	Acre 267.00
	Plots 54	Sample Trees 257

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre			
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf				
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99							
PP		CR CU																				
PP		CR CR	92	2.0	2,690	2,636	704			37	36	27	11	13	65	10	25	131	1.10			20.1
PP		CR GP	8		236	236	63	39	61				52	25	11	12	21	22	0.32			10.6
PP	Totals		66	1.9	2,925	2,871	767	3	39	33	25	15	14	61	10	22	87	0.86				33.2
LP		CR CU															5		0.00			.7
LP		CR CR	84	2.7	887	863	230		87	13		50	26	20	4	19	48	0.67				17.8
LP		CR GP	16		164	164	44	55	45			34	32	31	4	23	28	0.34				5.9
LP	Totals		23	2.3	1,051	1,027	274	9	80	11		48	27	22	4	20	42	0.57				24.4
WF		CR CU															1		0.00			.1
WF		CR CR	98	1.1	481	476	127		23	32	45	2	4	85	9	32	265	1.61				1.8
WF		CR GP	2		9	9	2		100			100				16	30	0.44				.3
WF	Totals		11	1.1	490	485	130		24	32	44	3	4	84	9	29	225	1.51				2.2
Type Totals				1.9	4,467	4,383	1,170	4	47	28	21	21	16	54	9	21	73	0.78				59.8



LOGGING PLAN
 OF TIMBER SALE CONTRACT NO.
 341-02-14

BY THE C

PORTIONS OF SECTION 30 AND 31, T32S, R7.5E, W.M.
 KLAMATH COUNTY, OREGON

LEGEND

- TIMBER SALE BOUNDARY
- ← SECTION LINE
- ◇ KNOWN LAND SURVEY CORNER
- ▨ EXCLUSION AREA
- == UNsurfaced EXISTING ROAD
- - UNsurfaced ROAD (CONST. REQUIRED)
- POINT ' ' POINT FOR PROJECT WORK

SALE AREA	305 ACRES
EXCLUSION AREAS	38 ACRES
APPROXIMATE SALE ACREAGE	267 ACRES

