



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
PLJ  
Sale 341-15-10

District: Klamath/Lake

Date: September 30, 2014

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**cost summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$194,047.48	\$0.00	\$194,047.48
		Project Work:	\$(10,613.00)
		Advertised Value:	\$183,434.48



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal PLJ Sale 341-15-10

**District:** Klamath/Lake

**Date:** September 30, 2014

## timber description

**Location:** Portions of Sections 8 and 18, T41S, R7E, and portions of Section 14, T41S, R6E, W.M., Klamath County, Oregon.

**Stand Stocking:** 40%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	27	0	95
Ponderosa Pine	16	0	97

Volume by Grade	CR 14" -	CR 22"+	CR 6" - 8	CR 8" - 1	Total
Douglas - Fir	171	99	14	36	320
Ponderosa Pine	276	31	144	346	797
Total	447	130	158	382	1,117

**comments:** Pond Values Used: 3rd Quarter Calendar Year 2014.

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HUALING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):

Dust Abatement: \$7,914

Brand & Paint: \$792

TOTAL Other Costs (with Profit & Risk to be added) = \$8,706

Other Costs (No Profit & Risk added):

Temporary water-use license fee for Klamath River: \$250

Private land owner road-use fee: \$2/MBF for total scaled volume.

Appraised volume 93 x \$2/MBF = estimated \$186 access fee.

TOTAL Other Costs (No Profit & Risk added) = \$436



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**logging conditions**

**combination#:** 1      Douglas - Fir      1.00%  
                                 Ponderosa Pine      37.00%

**yarding distance:** Medium (800 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:** 11.0      **bd. ft / load:** 4,200  
**cost / mbf:** \$72.60

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

**combination#:** 2      Douglas - Fir      99.00%  
                                 Ponderosa Pine      63.00%

**yarding distance:** Medium (800 ft)      **downhill yarding:** No  
**logging system:** Track Skidder      **Process:** Manual Falling/Delimbing  
**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF  
**loads / day:** 10.0      **bd. ft / load:** 4,500  
**cost / mbf:** \$76.45

**machines:** Log Loader (B)  
Track Skidder



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal PLJ Sale 341-15-10

**District:** Klamath/Lake

**Date:** September 30, 2014

## logging costs

<b>Operating Seasons:</b>	2.00	<b>Profit Risk:</b>	12.00%
<b>Project Costs:</b>	\$10,613.00	<b>Other Costs (P/R):</b>	\$8,706.00
<b>Slash Disposal:</b>	\$0.00	<b>Other Costs:</b>	\$436.00

### Miles of Road

**Road Maintenance:** \$1.70

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

### Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.5
Ponderosa Pine	\$0.00	2.0	4.2

### Local Pond Values

Date	Specie	Grade	Value
9/30/14	Douglas - Fir	CR 6" - 8"	\$425.00
9/30/14	Douglas - Fir	CR 8" - 14"	\$445.00
9/30/14	Douglas - Fir	CR 14" - 22"	\$455.00
9/30/14	Douglas - Fir	CR 22"+	\$460.00
9/30/14	Ponderosa Pine	CR 6" - 8"	\$285.00
9/30/14	Ponderosa Pine	CR 8" - 14"	\$335.00
9/30/14	Ponderosa Pine	CR 14" - 22"	\$385.00
9/30/14	Ponderosa Pine	CR 22"+	\$420.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
PLJ  
Sale 341-15-10

District: Klamath/Lake

Date: September 30, 2014

### logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$76.41	\$1.78	\$7.85	\$81.25	\$7.79	\$21.01	\$0.00	\$5.00	\$0.39	\$201.48
<b>Ponderosa Pine</b>									
\$75.03	\$1.75	\$7.85	\$85.40	\$7.79	\$21.34	\$0.00	\$5.00	\$0.39	\$204.55

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$454.11	\$252.63	\$0.00
Ponderosa Pine	\$0.00	\$346.59	\$142.04	\$0.00



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**summary**

**Amortized**

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

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	320	\$252.63	\$80,841.60
Ponderosa Pine	797	\$142.04	\$113,205.88

**Gross Timber Sale Value**

Recovery: \$194,047.48

Prepared by: Sara Stack

Phone: 541-883-5681

## **Summary of Project Work**

**PLJ**  
**341-15-10**



"STEWARDSHIP IN FORESTRY"

<b>Project No. 1:</b> Improve and construct roads.	<b>\$4,693.00</b>
<b>Project No. 2:</b> Felling, skidding, and piling of Sub-merchantable trees.	<b>\$5,522.50</b>
<b>Project No. 3:</b> Road closures.	<b>\$397.50</b>
<b>Total:</b>	<b>\$10,613.00</b>

PLJ  
341-15-10  
*Other Costs*

<i>Road Maintenance</i>	
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Move-in cost (grader):	\$400.00
Number of Miles to be Bladed:	6.8 (Dorris-Topsy Road + rocked segment of Pt. A to Pt D)
Number of Bladings:	1
Total Miles	6.8
Miles / Hour for equipment:	0.5
Cost / Hour (grader with operator):	\$105.50
Total Grading Hours:	14
Grading Cost:	\$1,477.00
	<b>\$1,877.00</b>
<b>Total Cost:</b>	
Cost / MBF:	\$1.68

<i>Dust Abatement (Profit &amp; Risk to be added in Appraisal)</i>						
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DF	320 MBF	29%	Average Load	4.5 MBF	No. of Loads	71
PP	797 MBF	71%	Average Load	4.2 MBF	No. of Loads	190
<b>Total:</b>	<b>1117 MBF</b>				<b>Total Loads</b>	<b>261</b>

Assume: 4 Trucks/Day  
 3 Trips/Day  
12 Loads per Day  
 22 Hauling Days

22 Days of Dust Abatement  
 4 Hours/Day  
 \$88.00 Cost/Hour  
 88 Total Hours  
 \$170.00 Move in for Water Truck  
 \$7,914.00 Dust Abatement Cost  
**\$7,914.00 Total Cost**  
 \$7.09 Cost/MBF

<i>Brand &amp; Paint (Profit and Risk to be added in Appraisal)</i>	
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22 Hauling Days  
 1.5 Hours/Day  
 \$24.00 Cost/Hour  
**\$792.00 Total Cost**  
 \$0.71 Cost/MBF

<i>Other Costs Summary (Profit and Risk to be added in Appraisal)</i>		
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\$7,914.00	Total cost for Dust Abatement	\$7.09 per MBF
\$792.00	Total Cost for Log Branding	\$0.71 per MBF
<b>\$8,706.00</b>	<b>Total Other Costs</b>	<b>\$7.80 per MBF</b>



PLJ  
341-15-10  
*Project Costs*

*Project #1 Road Improvement and Construction*

Move in Cost Dozer: \$400.00

**Improvement**

	<b>Points</b>	<b>Distance (ft)</b>	<b>Feet/Hour</b>	<b>Hours</b>	<b>Cost/Hour</b>	<b>Cost</b>
Open/Clear/Shape	D to E	3250	1000	3.3	\$132.50	\$437.25
Open/Clear/Shape	E to F	320	1000	0.3	\$132.50	\$39.75
Open/Clear/Shape	F to G	850	1000	0.9	\$132.50	\$119.25
Open/Clear/Shape	G to H	395	1000	0.4	\$132.50	\$53.00
Open/Clear/Shape	H to I	410	1000	0.4	\$132.50	\$53.00
Open/Clear/Shape	I to J	570	1000	0.6	\$132.50	\$79.50
Open/Clear/Shape	J to K	1675	1000	1.7	\$132.50	\$225.25
Open/Clear/Shape	K to L	930	1000	0.9	\$132.50	\$119.25
Open/Clear/Shape	L to M	1530	1000	1.5	\$132.50	\$198.75
Open/Clear/Shape	M to N	0	1000	0.0	\$132.50	\$0.00
Open/Clear/Shape	N to O	0	1000	0.0	\$132.50	\$0.00
Open/Clear/Shape	J to R	3160	1000	3.2	\$132.50	\$424.00
Open/Clear/Shape	R to S	2830	1000	2.8	\$132.50	\$371.00
Open/Clear/Shape	S to T	1160	1000	1.2	\$132.50	\$159.00
Open/Clear/Shape	S to V	2320	1000	2.3	\$132.50	\$304.75
Open/Clear/Shape	V to W	1560	1000	1.6	\$132.50	\$212.00
Open/Clear/Shape	X to Y1	1400	1000	1.4	\$132.50	\$185.50
Open/Clear/Shape	Y1 to Y2	370	1000	0.4	\$132.50	\$53.00
Open/Clear/Shape	Y2 to Z	1050	1000	1.1	\$132.50	\$145.75
Open/Clear/Shape	Z to AA	2375	1000	2.4	\$132.50	\$318.00
Open/Clear/Shape	AA to BB	1570	1000	1.6	\$132.50	\$212.00
	<b>Total</b>	<b>27725</b>			<b>Total</b>	<b>\$3,710.00</b>

**Construction**

	<b>Points</b>	<b>Distance (ft)</b>	<b>Feet/Hour</b>	<b>Hours</b>	<b>Cost/Hour</b>	<b>Cost</b>
Construct Spur	O to P	1165	500	2.3	\$132.50	\$304.75
	BB to CC	1050	500	2.1	\$132.50	\$278.25
	<b>Total</b>	<b>2215</b>			<b>Total</b>	<b>\$583.00</b>

*Project #1 Summary*

Equipment Costs	\$400.00
Open/Clear Shape	\$4,293.00
<b>Project #1 Total</b>	<b>\$4,693.00</b>
per MBF	\$4.20

PLJ  
341-15-10  
*Project Costs*

*Project #2 Felling, Skidding, and Piling of Submerchantable Trees*

Total Sub-Sawlog Volume: 62 MBF  
Fell and Skid and sort/MBF: \$60.00  
**Total: \$3,720.00**  
per MBF \$3.33

*Landing Slash Piling*

Number of Landings: 7

Shovel Time: 1 Hour per Landing	Cost per Hour: \$125.00	Total Cost	\$875.00
Cat Time: 1 Hour per Landing	Cost per Hour: \$132.50	Total Cost	\$927.50

**Total \$1,802.50**  
per MBF \$1.61

*Project #2 Summary*

Fell/Pile/Skid: \$3,720.00  
Landing Cleanup: \$1,802.50  
**Total: \$5,522.50**  
per MBF \$4.94

PLJ  
341-15-10  
*Project Costs*

*Project #3 Road Closure*

*Road Closures*

3 Number of Closure Points (O, P, BB)  
1 Hour/Point (Travel Included)  
\$132.50 Cost per Hour (Cat)  
**\$397.50 Total**  
\$0.36 per MBF

*Cost Summary All Projects*

\$4,693.00	Project #1 Road Improvement
\$5,522.50	Project #2 Fell, Skid, and Pile Submerchantable Trees
\$397.50	Project #3 Road Closure
<b>\$10,613.00</b>	<b>Total</b>
\$9.50	per MBF

*PLJ*  
*341-15-10*  
*Cruise Report*



**SALE NAME:** PLJ

**LEGAL DESCRIPTION:**

Portions of Sections 8 and 18, T41S, R7E; Portions of Section 14, T41S, R6E, W.M., Klamath County, Oregon.

**BOUNDARY LINES:**

Unit boundaries are posted with “Timber Sale Boundary” signs, marked with fluorescent orange paint and red flagging.

**FUND:**

100% B.O.F.

**ACREAGE:**

Area 1	155 Acres
Area 2	86 Acres
Area 3	18 Acres
Net Sale Acreage:	259 Acres

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

**TREATMENT:**

Timber Sale Areas 1 and 3 are single tree selection cuts with leave trees marked with orange paint for trees 5.0” DBH and larger. All orange marked trees in Areas 1 and 3 are reserved from cutting. Sale Area 2 is a single tree selection cut with cut trees marked in blue paint for all trees 5.0 inches DBH and larger. All orange marked trees are reserved from cutting in Area 2. All trees less than 5.0 inches DBH are reserved from cutting in these sale areas.

### **CRUISE METHOD:**

For Areas 1, 2, and 3: Variable plot cruise with a ratio of a count plot for every measure plot. Fixed plot cruise for all sub-merchantable material (5.0" to 10.0") DBH for all Areas.

### **BASAL AREA FACTOR:**

Area	BAF	Type Acreage
Area 1	10 BAF	155
Area 2	5 BAF	86
Area 3	13.61 BAF	18

### **PLOT DESIGNATION:**

Plot centers were established at every plot with blue flag wire stakes with the corresponding plot number. Pink flagging was attached to the nearest available tree branch.

### **SAMPLE SIZE CALCULATIONS:**

AREA	CV%	DESIRED SE%	ACRES
Area 1	60	13	155
Area 2	97	13	86
Area 3	54	13	18

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

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

$$\text{Area 1} \quad N = \frac{(1)^2(60)^2}{(13)^2} = 21 \text{ plots} \quad \text{Took 24 plots}$$

$$\text{Area 2} \quad N = \frac{(1)^2(97)^2}{(13)^2} = 56 \text{ plots} \quad \text{Took 30 plots}$$

$$\text{Area 3} \quad N = \frac{(1)^2(54)^2}{(13)^2} = 17 \text{ plots} \quad \text{Took 10 plots}$$

#### Measurements and Grading:

- Ratio of a count plot for every measure plot.
- DBH and Height were measured on all “in” trees for 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 10” DBH).

#### **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:**

10.0” DBH for sawlog volume. 5.0” DBH for submerchantable material.

#### **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 DBH.

#### **VOLUME COMPUTATION:**

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

**CRUISERS:** Chris Weekly, Todd Clement, Sara Stack

**FINAL CRUISE RESULTS:**

AREA	CV%	SE%	ACRES
Area 1	60	14.0	155
Area 2	97	13.5	86
Area 3	54	14.6	18

**TIMBER DESCRIPTION****SAWLOG VOLUME:**

This volume was obtained from the variable plot cruise. All material graded camprun. See grade table for minimum standards.

**AREA 1**

SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Douglas Fir	28.0	331	312
Ponderosa Pine	16.1	542	533

**AREA 2**

SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Douglas Fir	22.0	9	9
Ponderosa Pine	20.4	177	172

**AREA 3**

SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Ponderosa Pine	16.0	95	93

**TOTAL SAWLOG VOLUME**

SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Douglas Fir	27.6	340	320
Ponderosa Pine	16.8	814	797

**TOTAL NET SAWLOG VOLUME: 1,117 MBF**

**GREEN PULP VOLUME:**

This volume was obtained from the fixed plot cruise (5.0" – 9.0" DBH).

All material was graded green pulp, see grade table for minimum standards.

SPECIES	Fixed Plot Volume
Ponderosa Pine	51
Western Juniper	11

**TOTAL GREEN PULP VOLUME: 62 MBF**

TC TLOGSTVB				Log Stock Table - MBF																	
				Project: PLJ																	
T041 R007 S14 TVARI												T041 R007 S14 TVARI									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page 1					
041		007		14		604		VARI		18.00		10		18		Date 8/11/2014					
																Time 10:07:50AM					
Spp	T	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
										MBF	Def	MBF	Spc	2-3	4-5	6-8	9-10	11-12	13-14	15-16	17-19
PP		CR	CR	16		3		3	2.9						3						
PP		CR	CR	17		18	3.0	17	18.7			4	11	3							
PP		CR	CR	26		21	3.1	20	21.7			3	6	7	4						
PP		CR	CR	32		24		24	26.2							24					
PP		CR	CR	34		29	3.0	28	30.5			7	17	5							
PP		Totals				95	2.2	93	100.0			13	33	15	7	24					
Total All Species						95	2.2	93	100.0			13	33	15	7	24					



TC TLOGSTVB				Log Stock Table - MBF																							
				Project: PLJ																							
T041 R007 S18 TVARI														T041 R007 S18 TVARI													
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page		1									
041		007		18		606		VARI		155.00		24		62		Date		8/11/2014									
																Time 10:07:04AM											
S So Gr Log				Gross		% Net		%		Net Volume by Scaling Diameter in Inches																	
Spp T rt de Len				MBF		Def MBF		Spc		2-3 4-5		6-8 9-10		11-12 13-14		15-16 17-19		20-21 22-29		30-39 40+							
PP CR CR 12				6		6		1.1								6											
PP CR CR 16				4		4		.7						4													
PP CR CR 17				48		48		8.9		32 9		7															
PP CR CR 22				10		10		1.9						10													
PP CR CR 26				108		3.6 104		19.5		38 14		12 10		19 11													
PP CR CR 32				168		1.5 165		31.0						19 50		52 44											
PP CR CR 34				200		1.4 197		36.9		44 77		76															
PP Totals				542		1.7 533		63.1				114 100		88 39		79 69		44									
DF CR CR 17				6		6		2.0				1 1		4													
DF CR CR 26				50		2.8 49		15.6				4 10								35							
DF CR CR 34				274		6.3 257		82.4		9				17		94 50		22 64									
DF Totals				331		5.7 312		36.9				14 11		21		94 50		22 99									
Total All Species				873		3.2 845		100.0				128 112		88 60		173 119		67 99									

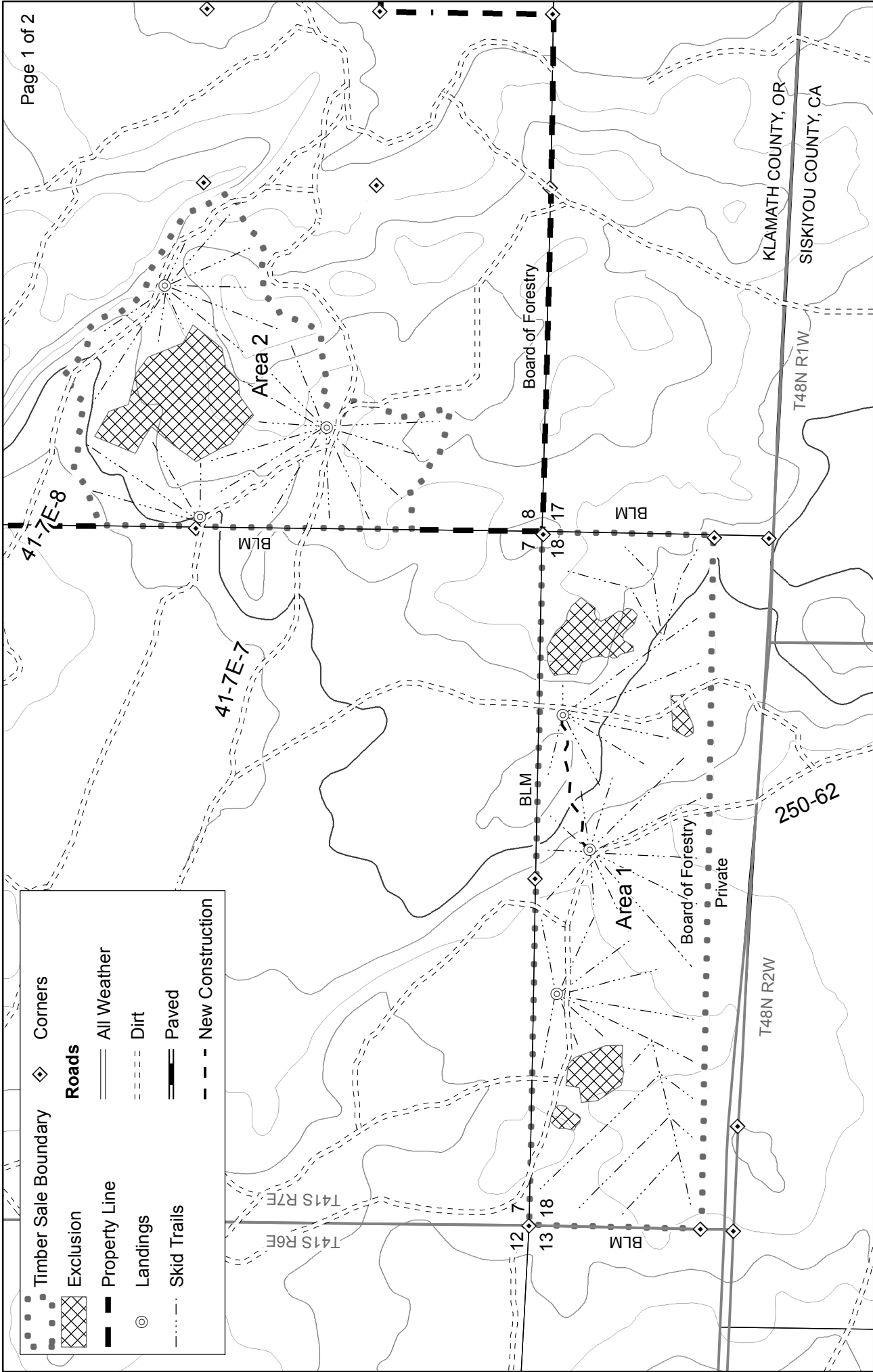
TC TLOGSTVB				Log Stock Table - MBF																
				Project: PLJ																
T041 R007 S08 TVARI												T041 R007 S08 TVARI								
Twp Rge Sec Tract				Type Acres Plots Sample Trees				Page 1												
041 007 08 610				VARI 86.00 30 64				Date 8/11/2014												
								Time 10:08:24AM												
S Spp	T	So	Gr	Log	Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches										
										2-3	4-5	6-8	9-10	11-12	13-14	15-16	17-19	20-21	22-29	30-39
PP		CR	CR	17		17	1.6	17	9.6			0	7	4	4	1				
PP		CR	CR	24		3		3	1.7								3			
PP		CR	CR	26		20	.6	20	11.4			5	4	4	3	3				
PP		CR	CR	28		3		3	1.5							3				
PP		CR	CR	30		4		4	2.1								4			
PP		CR	CR	32		73	3.4	70	40.7							5	30	4	31	
PP		CR	CR	34		58	2.0	57	32.9			12	12	10	15	2	5			
PP Totals						177	2.3	172	95.2			17	23	19	22	14	42	4	31	
DF		CR	CR	34		9	3.8	9	100.0				2	2		2		3		
DF Totals						9	3.8	9	4.8				2	2		2		3		
Total All Species						186	2.4	181	100.0			17	25	21	22	16	42	7	31	

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	PLJ	DATE				3/6/2014	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
041	007	14	604	VARI	18.30	10	49	1	E		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL			10	49	4.9						
CRUISE			5	18	3.6	869	2.1				
DBH COUNT											
REFOREST											
COUNT			5	31	6.2						
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
PPINE			18	47.5	16.0	46	16.6	66.7	5,269	5,154	1,233
TOTAL			18	47.5	16.0	46	16.6	66.7	5,269	5,154	1,233
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	
PPINE			108.9	26.4	111	151	190				
TOTAL			108.9	26.4	111	151	190	502	125	56	
CL:	68.1 %	COEFF		SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR. %	S.E. %	LOW	AVG	HIGH	5		10	15	
PPINE			83.6	20.3	27	34	40				
TOTAL			83.6	20.3	27	34	40	296	74	33	
CL:	68.1 %	COEFF		TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR. %	S.E. %	LOW	AVG	HIGH	5		10	15	
PPINE			37.0	12.3	42	47	53				
TOTAL			37.0	12.3	42	47	53	61	15	7	
CL:	68.1 %	COEFF		BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR. %	S.E. %	LOW	AVG	HIGH	5		10	15	
PPINE			41.3	13.8	58	67	76				
TOTAL			41.3	13.8	58	67	76	76	19	8	
CL:	68.1 %	COEFF		NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR. %	S.E. %	LOW	AVG	HIGH	5		10	15	
PPINE			44.0	14.6	4,400	5,154	5,909				
TOTAL			44.0	14.6	4,400	5,154	5,909	86	21	10	
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	
PPINE			42.2	14.0	1,060	1,233	1,407				
TOTAL			42.2	14.0	1,060	1,233	1,407	79	20	9	

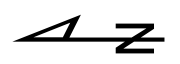
TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	PLJ	DATE 3/6/2014					
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
041	007	18	606	VARI	153.30	24	114	1	E		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL		24	114	4.8							
CRUISE		12	62	5.2	4,324	1.4					
DBH COUNT											
REFOREST											
COUNT		11	52	4.7							
BLANKS		1									
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	
PPINE		50	25.6	16.1	43	9.0	36.3	3,500	3,441	760	760
DOUG-FIR		12	2.6	28.0	74	2.1	11.3	2,133	2,011	381	381
TOTAL		62	28.2	17.6	46	11.3	47.5	5,632	5,452	1,141	1,141
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		
PPINE		99.0	14.0	214	249	284					
DOUG-FIR		55.1	16.6	771	924	1,078					
TOTAL		107.9	13.7	328	380	432	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		
PPINE		82.6	11.7	45	51	57					
DOUG-FIR		43.0	13.0	145	167	188					
TOTAL		91.0	11.6	65	74	82	331	83	37		
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PPINE		60.7	12.6	22	26	29					
DOUG-FIR		147.0	30.6	2	3	3					
TOTAL		56.1	11.7	25	28	32	132	33	15		
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PPINE		54.5	11.4	32	36	40					
DOUG-FIR		139.5	29.1	8	11	15					
TOTAL		53.5	11.2	42	48	53	119	30	13		
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PPINE		59.9	12.5	3,012	3,441	3,870					
DOUG-FIR		137.4	28.6	1,435	2,011	2,587					
TOTAL		67.4	14.0	4,687	5,452	6,218	189	47	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		
PPINE		56.8	11.8	670	760	850					
DOUG-FIR		139.9	29.2	270	381	492					
TOTAL		62.5	13.0	992	1,141	1,289	163	41	18		

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	PLJ	DATE 3/6/2014					
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
041	007	08	610	VARI	83.74	30	140	1	E		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL				30	140	4.7					
CRUISE				14	64	4.6	858	7.5			
DBH COUNT											
REFOREST											
COUNT				14	76	5.4					
BLANKS				2							
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
PPINE		60	9.9	20.4	42	4.9	22.3	2,052	2,006	435	435
DOUG-FIR		4	.4	22.0	53	0.2	1.0	106	102	23	23
TOTAL		64	10.2	20.4	43	5.2	23.3	2,158	2,107	459	459
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		
PPINE		121.0	15.6	311	368	425					
DOUG-FIR		63.4	36.2	209	328	446					
TOTAL		118.6	14.8	311	365	420	562	141	62		
CL:	68.1 %	COEFF		SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
PPINE		95.2	12.3	63	72	81					
DOUG-FIR		51.1	29.2	52	73	94					
TOTAL		92.7	11.6	64	72	81	344	86	38		
CL:	68.1 %	COEFF		TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
PPINE		84.7	15.7	8	10	11					
DOUG-FIR		305.9	56.8	0	0	1					
TOTAL		82.6	15.3	9	10	12	283	71	31		
CL:	68.1 %	COEFF		BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
PPINE		73.4	13.6	19	22	25					
DOUG-FIR		275.4	51.2	0	1	2					
TOTAL		72.1	13.4	20	23	26	216	54	24		
CL:	68.1 %	COEFF		NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
PPINE		74.5	13.8	1,728	2,006	2,283					
DOUG-FIR		269.2	50.0	51	102	152					
TOTAL		72.9	13.5	1,822	2,107	2,393	220	55	24		
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		
PPINE		74.7	13.9	375	435	496					
DOUG-FIR		272.3	50.6	12	23	35					
TOTAL		73.2	13.6	396	459	521	222	55	25		

Sale Area (Unit)	Notes	Total MBF Volume	Unit SE% (cruise statistics result)	SE in MBF (calculated)	SE in MBF Squared (calculated)
A	Area 1	835.7916	14.0%	117	13692
B	Area 2	176.44018	13.5%	24	567
C	Area 3	94.3182	14.6%	14	190
D				0	0
E				0	0
F				0	0
G				0	0
H				0	0
I				0	0
J				0	0
K				0	0
L				0	0
Totals		1106.54998	10.9%	--	14449



**LOGGING PLAN**  
 OF TIMBER SALE CONTRACT NO. 341-15-10  
 PLJ  
 LOCATED IN PORTIONS OF SECTIONS 8 & 18,  
 T41S, R7E, AND SECTION 14, T41S, R6E, W.M.  
 KLAMATH COUNTY, OR



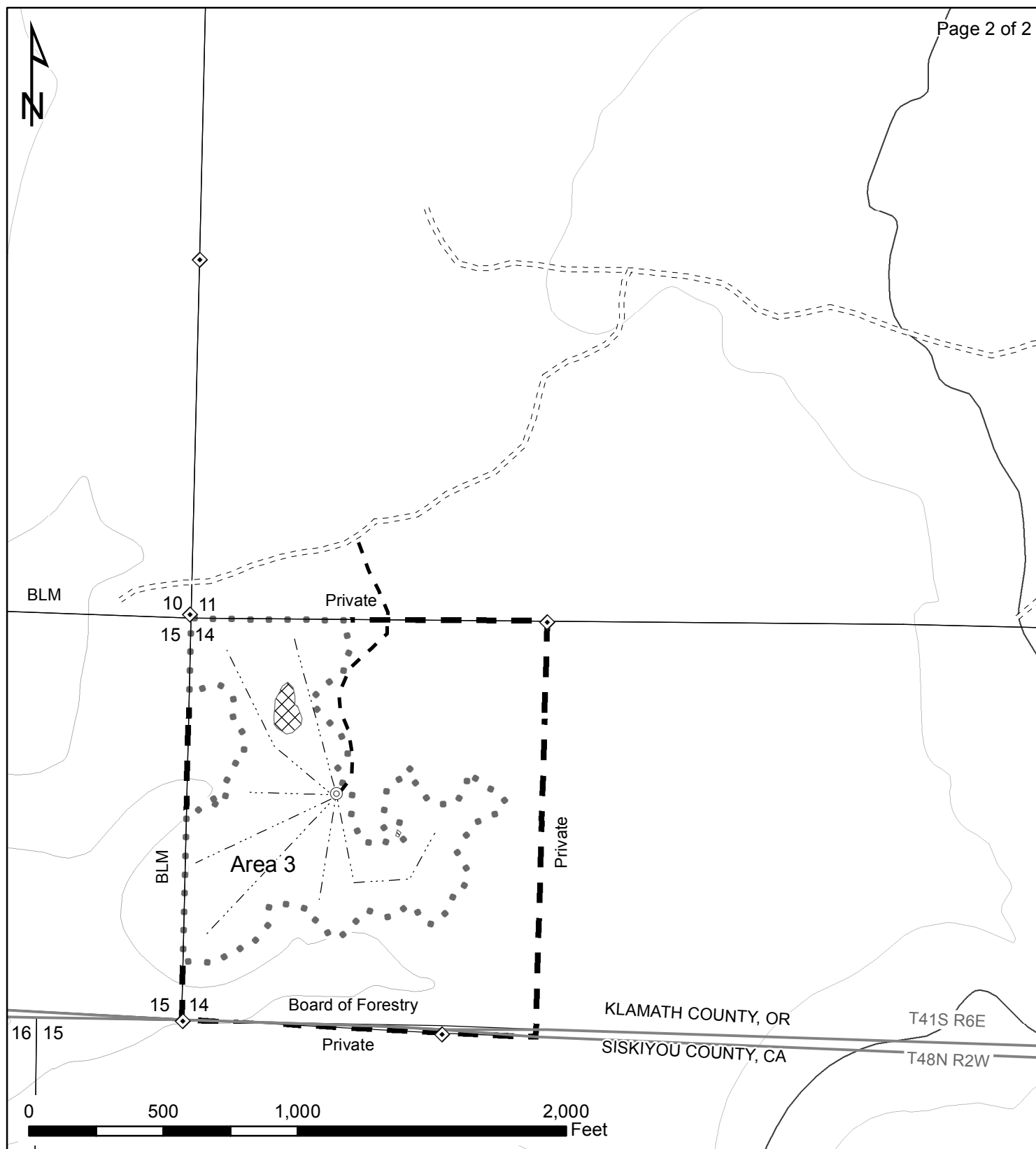
Sale Area	Harvest Type	Net Acres
1	Thin	155
2	Thin	86
3	Thin	18
Total - 259 Acres		



1 inch = 1,000 feet

This product is for informational purposes and may not have been prepared for, or suitable for, legal engineering, or surveying purposes.

Contour Interval: 20'



## LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-15 -10

PLJ

LOCATED IN PORTIONS OF SECTIONS 8 & 18,  
T41S, R7E, AND SECTION 14, T41S, R6E, W.M.  
KLAMATH COUNTY, OR

Sale Area	Harvest Type	Net Acres
1	Thin	155
2	Thin	86
3	Thin	18
Total - 259 Acres		

Contour Interval: 20'

1 inch = 500 feet

This product is for informational purposes and may not have been prepared for, or suitable for, legal engineering, or surveying purposes.

	Timber Sale Boundary		Corners
	Exclusion	<b>Roads</b>	
	Property Line		Paved
	Landings		Dirt
	Skid Trails		Construction