



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Red Tail Down
Sale 341-14-76

District: Klamath/Lake

Date: February 04, 2014

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$152,531.07	\$0.00	\$152,531.07
		Project Work:	\$(5,472.05)
		Advertised Value:	\$147,059.02



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District: Klamath/Lake

Date: February 04, 2014

timber description

Location: Area 1:
T24S, R8E, N½ NW¼ and N½ NE¼ of Section 17, W.M., Klamath County, Oregon.

Area 2:
T24S, R8E, NE ¼ of Section 27, W.M., Klamath County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Lodgepole Pine	12	0	95

Volume by Grade	Camprun	Total
Lodgepole Pine	807	807
Total	807	807

comments: Pond Values Used: 4th Quarter Calender Year 2013.

Log Markets: Gilchrist

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

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

Log Branding & Painting: \$792

TOTAL Other Costs (with Profit & Risk to be added) = \$792

Other Costs (No Profit & Risk added):

None.



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logging conditions

combination#:	1	Lodgepole Pine	100.00%
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:	10.0	bd. ft / load:	4,500
cost / mbf:	\$73.79		
machines:	Log Loader (B) Stroke Delimber (B) Feller Buncher w/ Delimber Tire Skidder		



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District: Klamath/Lake

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logging costs

Operating Seasons:	1.00	Profit Risk:	10.00%
Project Costs:	\$5,472.05	Other Costs (P/R):	\$0.00
Slash Disposal:	\$0.00	Other Costs:	\$792.00

Miles of Road

Road Maintenance: \$2.20

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Lodgepole Pine	\$0.00	6.0	4.5

Local Pond Values

Date	Specie	Grade	Value
1/7/14	Lodgepole Pine	Camprun	\$315.00



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Red Tail Down
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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Lodgepole Pine									
\$73.79	\$2.31	\$5.43	\$27.57	\$0.00	\$10.91	\$0.00	\$5.00	\$0.98	\$125.99

Specie	Amortization	Pond Value	Stumpage	Amortized
Lodgepole Pine	\$0.00	\$315.00	\$189.01	\$0.00



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summary

Amortized

Specie	MBF	Value	Total
Lodgepole Pine	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Lodgepole Pine	807	\$189.01	\$152,531.07

Gross Timber Sale Value

Recovery: \$152,531.07

Prepared by: Jon Fitch

Phone: 541-891-7881

Red Tail Down Timber Sale

Whole Log Chip Appraisal

341-14-76

Location T 24S, R 8E, N½ NW¼ and N½ NE¼ of Section 17, W.M., Klamath County, OR.

T 24S, R 8E, NE ¼ of Section 27, W.M., Klamath County, OR

Note See Sawlog Appraisal for additional bid information



Baseline Information

588	MBF (cruise amount)
5,880	Tons (State Conversion)
3,822,000	pounds (Actual Conversion -lodgepole)
1,911	Tons (Actual Conversion -lodgepole)

\$100.00	payment / dry ton
40.0%	moisture
\$60.0	payment / green ton
\$750.00	haul cost
\$22.73	haul cost / green ton
\$32.27	Cost for Cut & Skid & Chip / green ton

33.0	green tons / load
19.8	bdt / load

Cost

\$22.73	haul cost / green ton
\$32.27	harvest cost / green ton

Price

\$60.00	payment / green ton
\$55.00	total cost / green ton
\$5.00	Appraised price / green ton

Value

\$5.00	Appraised price / green ton
1,911	green tons
\$9,560.21	Appraised Chip Value

\$147,059.02 Appraised Timber Value

\$156,619.23 Total Appraised Value

Red Tail Down

341-14-76

Other Costs



Road Maintenance

Move-in cost (grader): \$400.00

Haul Rd

Number of Bladings: 2 After Sawlog hauling, After Chipwood hauling
Number of Miles to be Bladed: 3.25

Total Miles 6.5
Miles / Hour for equipment: 0.5
Cost / Hour (grader with operator): \$105.50
Total Grading Hours: 13
Grading Cost: \$1,371.50
Total Cost: \$1,771.50
Cost / MBF: \$2.20 (sawlog only)

Brand & Paint (Profit and Risk to be added in Appraisal)

Sawlog

LP	807 MBF	Average Load	4.5 MBF	No. of Load	179
Total:	807 MBF				

Pulp / Chip

Total	5880 Tons	Average Load	33 Tons	No. of Load	178
	588 MBF				

<i>Total MBF</i>	<i>1395 all material</i>	Total Loads	357
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Assume:	2 Trucks/Day	18 Hauling Days
(sawlog)	5 Trips/Day	1.5 Hours/Day
	10 Loads per Day	\$24.00 Cost/Hour
	18 Hauling Days	\$648.00 Sawlog Cost of Branding

Assume:	5 Trucks/Day	36 Hauling Days
(pulp)	1 Trips/Day	
	5 Loads/Day	
	36 Hauling Days	

\$648.00 total cost
\$0.80 per MBF (sawlog only)

Other Costs Summary (Profit and Risk to be added in Appraisal)

\$1,771.50 Total cost for Road Maintenance	\$2.20 per MBF (sawlog only)
<u>\$648.00 Total Cost for Log Branding</u>	<u>\$0.80 per MBF (sawlog only)</u>
\$2,419.50 Total Other Costs	\$3.00 per MBF (sawlog only)

Red Tail Down

341-14-76

Project Costs



Project #1 Road Improvement

Move in Cost Grader: \$400.00

Improvement	Points	Distance (ft)	Feet/Hour	Hours	Cost/Hour	Cost
Open/Clear/Shape	A to B	11,692	2500	4.7	\$105.50	\$495.85
Open/Clear/Shape	B to C	5,439	1000	5.4	\$105.50	\$569.70
Total		17,131				\$1,065.55
Total						\$1,465.55

Project #1 Summary

Equipment Costs \$400.00
Open/Clear Shape \$1,065.55
Project #1 Total \$1,465.55
per MBF \$1.05 (sawlog only)

Project #2 Road Construction

Move in Cost Dozer: \$400.00 total move in cost \$800.00
Times moved 2

Improvement	Points	Distance (ft)	Feet/Hour	Hours	Cost/Hour	Cost
Area 1						
Construction	C to D	5,439	500	10.9	\$132.50	\$1,444.25
Area 2						
Construction	E to F	5631	500	11.3	\$132.50	\$1,497.25
	(including loop)					
Total		11,070		22.2		\$2,941.50

Project #2 Summary

move in cost \$800.00
Construction \$2,941.50
Project #2 Total \$3,741.50
per MBF \$2.68

Red Tail Down

341-14-76

Project Costs



Project #3 Road Closures and Waterbarring

2 Number of Closure Points (C & E)
 1 Hours / Point (include travel)
 \$ 132.50 Cost / Hour (Cat)
 2 Total Road Blocking Hours
\$ 265.00 Closure Cost

Total Cost Project #3 \$ 265.00

Other Costs Summary

\$1,771.50	Total cost for Road Maintenance	\$2.20 per MBF	(sawlog only)
\$648.00	Total cost for Log Branding	\$0.80 per MBF	(sawlog only)
\$2,419.50	Total Other Costs	\$3.00 per MBF	(sawlog only)

Project Cost Summary

\$1,465.55	Project #1 Road Improvement	\$1.82 per MBF	(sawlog only)
\$3,741.50	Project #2 Road Construction	\$4.64 per MBF	(sawlog only)
\$265.00	Project #3 Road Closure	\$0.33 per MBF	(sawlog only)
\$5,472.05	Total	\$6.78 per MBF	(sawlog only)

RED TAIL DOWN

341-14-76
Cruise Report



SALE NAME: Red Tail Down

LEGAL DESCRIPTION:

Area 1:

T 24S, R 8E, N½ NW¼ and N½ NE¼ of Section 17, W.M., Klamath County, OR.

Area 2:

T 24S, R 8E, NE ¼ of Section 27, W.M., Klamath County, OR.

BOUNDARY LINES:

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

FUND:

100% Board of Forestry

ACREAGE:

The timber sale was delineated into 2 areas based upon stand history and silvicultural prescription.

Area I	Stand ID # 40256	155 Acres	
Area II	Stand ID # 40255	161 Acres	11 Acres of Exclusion

Approximate Total Sale Acreage: 305

Mapping was accomplished using a District and State Geographic Information System (GIS) data and a with a code-grade handheld GPS reciever.

TREATMENT:

1. Area I and Area II
 - a. All Lodgepole Pine over 10" DBH will be cut
 - b. Lodgepole pine 5" to 10" DBH will be thinned
 - c. Acceptable spacing will be as follows:
 - i. Where healthy regeneration 1" to 5" DBH exists over 70 Trees per Acre, leave trees 5" to 10" with excellent form free of insects and disease
 - ii. Where no healthy regeneration 1" to 5" DBH occurs, leave 5" to 10" trees at 70 / acre (equates to 25ft spacing)
 - iii. When harvesting specifications fall between the above possibilities PURCHASER will proceed at the direction and approval of STATE.
 - d. STATE reserves the right to adjust leave tree specifications in trees under 10" DBH.
2. 2 trees per acre (75ft spacing) over 6" DBH will be created 15' or taller
3. All trees with heavy infestation of mistletoe and other disease are not suitable for leave trees
4. All Blue marked trees

CRUISE METHOD:

For Area I and II:

Variable plot cruise with odd plots being measure plots and even plots being count plots. Fixed plot cruise for all sub-merchantable material (5.0"to 9.0") DBH.

BASAL AREA FACTOR:

Area	BAF	Type Acreage
Area I	5 BAF	155 acres
Area II	5 BAF	150 acres

PLOT DESIGNATION:

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

SAMPLE SIZE CALCULATIONS:

AREA	CV%	DESIRED SE%	ACRES
Area I	53	12	269
Area II	46	12	104

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

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

Area I $N = \frac{(1)^2(53)^2}{(12)^2} = 20 \text{ plots}$ Took 20 plots

Area II $N = \frac{(1)^2(46)^2}{(12)^2} = 15 \text{ plots}$ Took 15 plots

Measurements and Grading:

- DBH and Height were measured on all "in" trees for measure plots.
- All odd plots were measure plots and even plots were count.
- 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 submerch material (5" to 9" 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:

9.0" DBH for sawlog volume. 5.0" DBH for sub-merchantable 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 D.B.H.

VOLUME COMPUTATION:

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

CRUISERS:

Jon Fitch, Chris Weekly, Todd Clement, John Pellissier.

FINAL CRUISE RESULTS:

AREA	CV%	SE%	ACRES
Area I	53	17.1	155
Area II	46	12.8	150
COMBINED	75	11.6	305

TIMBER DESCRIPTION

SAWLOG VOLUME:

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

AREA I

SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Lodgepole Pine	11.5	321	314

AREA II

SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Lodgepole Pine	11.7	506	493

TOTAL SAWLOG VOLUME

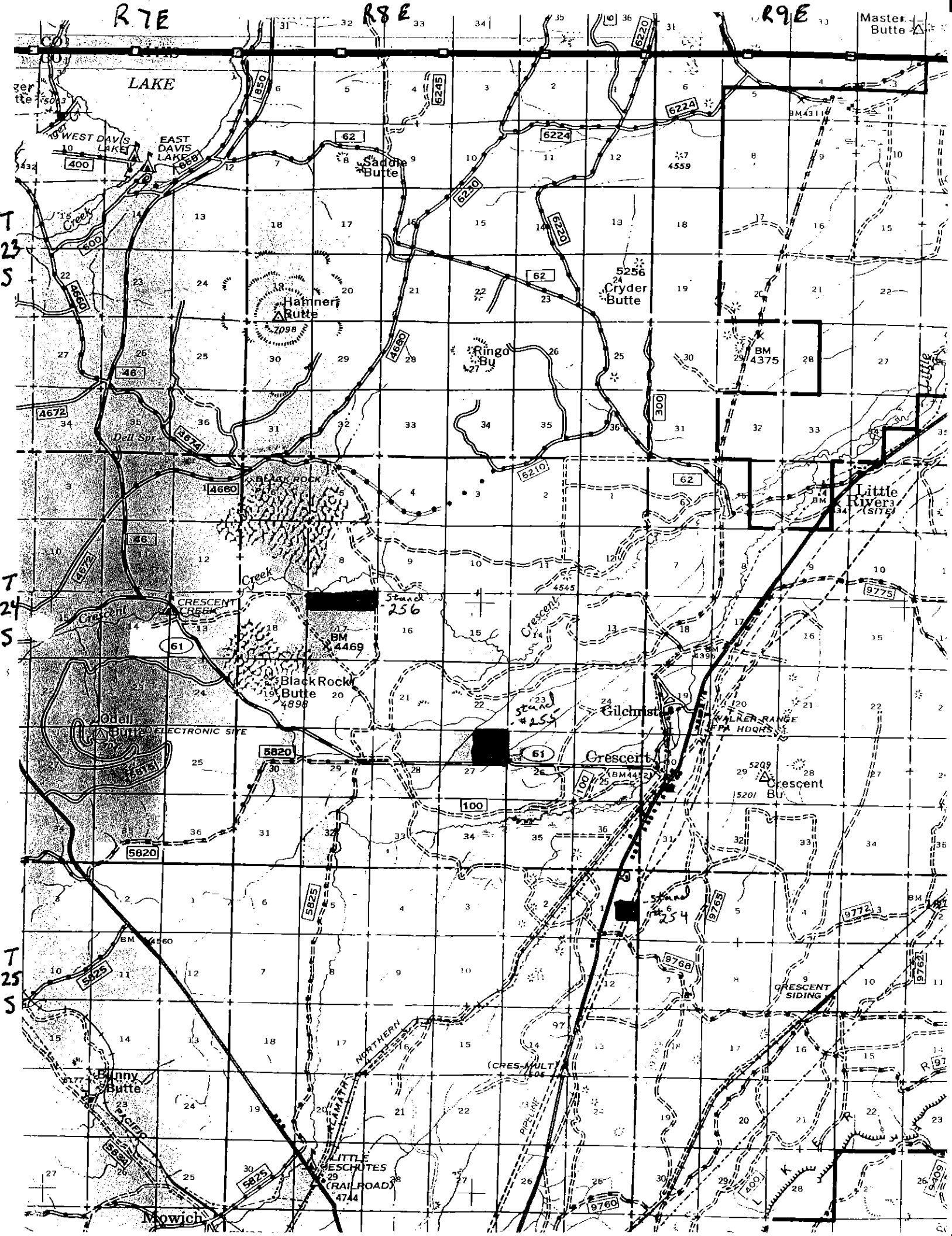
SPECIES	AVE. DBH	GROSS VOL (MBF)	NET VOL (MBF)
Lodgepole Pine	11.6	827	807

TOTAL NET SAWLOG VOLUME: 807 MBF

GREEN PULP VOLUME:

This volume was obtained from the fixed plot cruise (5.0" – 10.0" DBH) for Areas 1 and 2. All material was graded green pulp, see grade table for minimum standards.

Lodgepole Pine Pulp Material	Fixed Plot Volume (5" – 8.9" DBH)
MBF	588
Tons	5880



TC		PLOGSTVB		Log Stock Table - MBF																
<div>T024 R008 S17 TyVAR155.00</div> <div>T024 R008 S27 TyVAR150.00</div>				Project:				RTD				Page				1				
				Acres				305.00				Date				10/15/2013				
												Time				7:04:10AM				
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	6-8	9-10	11-12	13-14	15-16	17-19	20-21	22-29	30-39	40+
LP		CR	CR	16	5		5	.6				5								
LP		CR	CR	17	91		91	11.3			80	11								
LP		CR	CR	26	77	1.0	76	9.4			60	8	8							
LP		CR	CR	33	11		11	1.4				11								
LP		CR	CR	34	643	2.9	624	77.3			429	149	35		12					
LP		Totals			827	2.4	807	100.0			569	184	43		12					
Total		All Species			827	2.4	807	100.0			569	184	43		12					

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																				
<div><div>T024 R008 S17 TyVAR155.00</div><div>T024 R008 S27 TyVAR150.00</div></div>		Project:		RTD		Acres		305.00		Page		1		Date		10/15/2013		Time		7:02:31AM				
S		So Gr		%		Bd. Ft. per Acre			Total		Percent of Net Board Foot Volume								Average Log				Logs	
Spp		T rt ad		Net BdFt		Def% Gross Net			Net MBF		Log Scale Dia.				Log Length				Ln Dia Bd CF/				Per	
											6-8 9-14 15-21 22+				12-20 21-30 31-35 36-99				Ft In Ft Lf				/Acre	
LP		CR CR		100		2.4 2,711 2,647			807		70 28 1				12 9 79				28 8 66 0.55				40.4	
LP		Totals		100		2.4 2,711 2,647			807		70 28 1				12 9 79				28 8 66 0.55				40.4	
Totals						2.4 2,711 2,647			807		70 28 1				12 9 79				28 8 66 0.55				40.4	

TC PSTATS				PROJECT STATISTICS					PAGE	1		
				PROJECT	RTD		DATE				10/15/2013	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt		
024	008	17	256	FIX		305.00	35	81	1	E		
024	008	27	255	FIX								
				TREES		ESTIMATED	PERCENT					
				TOTAL		SAMPLE						
				PLOTS	TREES	PER PLOT	TREES	TREES				
TOTAL			35	81	2.3							
CRUISE			28	81	2.9	34,100	.2					
DBH COUNT												
REFOREST												
COUNT												
BLANKS			7									
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	
LP PINE			81	111.8	6.9	25	11.1	29.2	1,929	1,929	456	456
TOTAL			81	111.8	6.9	25	11.1	29.2	1,929	1,929	456	456
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	
LP PINE		52.1	5.9	17	18	19						
TOTAL		52.1	5.9	17	18	19			108	27	12	
CL	68.1	COEFF		SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
LP PINE		48.5	5.5	4	4	4						
TOTAL		48.5	5.5	4	4	4			94	23	10	
CL	68.1	COEFF		TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
LP PINE		90.3	15.3	95	112	129						
TOTAL		90.3	15.3	95	112	129			326	82	36	
CL	68.1	COEFF		BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
LP PINE		93.2	15.8	25	29	34						
TOTAL		93.2	15.8	25	29	34			348	87	39	
CL	68.1	COEFF		NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15	
LP PINE		87.4	14.8	1,644	1,929	2,215						
TOTAL		87.4	14.8	1,644	1,929	2,215			306	76	34	
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	
LP PINE		92.1	15.6	385	456	527						
TOTAL		92.1	15.6	385	456	527			339	85	38	

TC PSTATS				PROJECT STATISTICS				PAGE	1			
				PROJECT	RTD	DATE				10/15/2013		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
024	008	17	256	VAR	305.00	35	190	1	E			
024	008	27	255	VAR								
				TREES	ESTIMATED	PERCENT						
					TOTAL	SAMPLE						
				PLOTS	TREES	PER PLOT	TREES	TREES				
TOTAL			35	190	5.4							
CRUISE			17	93	5.5	11,487	.8					
DBH COUNT												
REFOREST												
COUNT			17	97	5.7							
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	
LP PINE			93	37.7	11.6	40	8.2	27.8	2,711	2,647	637	637
TOTAL			93	37.7	11.6	40	8.2	27.8	2,711	2,647	637	637
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		
LP PINE		75.0	7.8	78	85	91						
TOTAL		75.0	7.8	78	85	91		225	56	25		
CL	68.1	COEFF		SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
LP PINE		60.6	6.3	19	20	21						
TOTAL		60.6	6.3	19	20	21		147	37	16		
CL	68.1	COEFF		TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
LP PINE		63.4	10.7	34	38	42						
TOTAL		63.4	10.7	34	38	42		161	40	18		
CL	68.1	COEFF		BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
LP PINE		64.3	10.9	25	28	31						
TOTAL		64.3	10.9	25	28	31		166	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		
LP PINE		68.9	11.6	2,339	2,647	2,955						
TOTAL		68.9	11.6	2,339	2,647	2,955		190	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		
LP PINE		67.9	11.5	564	637	710						
TOTAL		67.9	11.5	564	637	710		184	46	20		

TC		PSTNDSPC		Stand Table Summary - Size Class by Species												
<div>T024 R008 S17 TyVAR155.00</div> <div>T024 R008 S27 TyVAR150.00</div>					Project		RTD		Page		1					
					Acres		305.00		Date:		10/15/2013					
									Time:		7:02:31AM					
			Tot					Average Log		Net		Net		T o t a l s		
Species	Size	DBH	Av	Ave	Trees/	BA/	Logs	Net	Net	Tons/	CuFt/	BdFt/	Tons	Cunits	MBF	
	Class	Range	Ht	Age	Acre	Acre	Acre	CuFt	BdFt	Acre	Acre	Acre				
LP	POLES	6.5-11.5	56	95	21.141	11.87	21.14	11.5	45.1	5.83	243	953	1,778	741	291	
	SMALL SAW	11.5-21.5	66	101	16.437	15.68	19.07	20.3	86.6	9.28	387	1,652	2,831	1,180	504	
	LARGE SAW	21.5-39.5	72	150	.084	.27	.17	45.0	255.0	.18	8	43	55	23	13	
LP	Total		60	98	37.662	27.83	40.38	15.8	65.5	15.29	637	2,647	4,664	1,944	807	
Totals			60	98	37.662	27.83	40.38	15.8	65.5	15.29	637	2,647	4,664	1,944	807	

TC TLOGSTVB				Log Stock Table - MBF																											
				Project: RTD																											
T024 R008 S27 TVAR																T024 R008 S27 TVAR															
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page		1													
024		008		27		255		VAR		150.00		15		51		Date		10/15/2013													
																Time		7:10:30AM													
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+	
LP CR CR 16				5			5	1.0					5																		
LP CR CR 17				33			33	6.6					33																		
LP CR CR 26				57			1.3	57	11.5			41		8		8															
LP CR CR 33				11				11	2.3					11																	
LP CR CR 34				399			3.1	387	78.5			272		91		24															
LP Totals				506			2.6	493	100.0			346		116		32															
Total All Species				506			2.6	493	100.0			346		116		32															

TC TLOGSTVB				Log Stock Table - MBF																
				Project:				RTD												
T024 R008 S17 TVAR												T024 R008 S17 TVAR								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
024	008	17	256	VAR	155.00	20	42	Date	10/15/2013											
								Time	7:08:12AM											
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+
LP	CR	CR	17	58			58	18.5			47	11								
LP	CR	CR	26	19			19	6.1			19									
LP	CR	CR	34	243	2.6		237	75.4			157	58	11		12					
LP	Totals			321	2.0		315	100.0			223	69	11		12					
Total All Species				321	2.0		315	100.0			223	69	11		12					

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	RTD	DATE 10/15/2013				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
024	008	27	255	VAR	150.00	15	100	1	E	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL			15	100	6.7					
CRUISE			7	51	7.3	6,689	.8			
DBH COUNT										
REFOREST										
COUNT			8	49	6.1					
BLANKS										
100 %										
STAND SUMMARY										
			SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET
			TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC
									GROSS	NET
									CF/AC	CF/AC
LP PINE			51	44.6	11.7	41	9.7	33.3	3,373	3,285
TOTAL			51	44.6	11.7	41	9.7	33.3	3,373	3,285
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
LP PINE			50.7	7.1	78	84	90			
TOTAL			50.7	7.1	78	84	90	103	26	11
CL:	68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15
LP PINE			44.2	6.2	19	20	21			
TOTAL			44.2	6.2	19	20	21	78	19	9
CL:	68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15
LP PINE			42.8	11.4	39	45	50			
TOTAL			42.8	11.4	39	45	50	78	20	9
CL:	68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15
LP PINE			44.2	11.8	29	33	37			
TOTAL			44.2	11.8	29	33	37	84	21	9
CL:	68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15
LP PINE			47.8	12.8	2,865	3,285	3,705			
TOTAL			47.8	12.8	2,865	3,285	3,705	98	25	11
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
LP PINE			46.5	12.4	696	795	894			
TOTAL			46.5	12.4	696	795	894	93	23	10

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	RTD	DATE 10/15/2013				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
024	008	17	256	VAR	155.00	20	90	1	E	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
PLOTS		TREES		TREES		TREES				
TOTAL		20		90		4.5				
CRUISE		10		42		4.2		4,798 .9		
DBH COUNT										
REFOREST										
COUNT		9		48		5.3				
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
LP PINE		42	31.0	11.5	37	6.6	22.5	2,070	2,029	484 484
TOTAL		42	31.0	11.5	37	6.6	22.5	2,070	2,029	484 484
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	
LP PINE		96.7	14.9	73	85	98				
TOTAL		96.7	14.9	73	85	98	374 93		42	
CL:	68.1 %	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15	
LP PINE		76.8	11.8	18	20	22				
TOTAL		76.8	11.8	18	20	22	236 59		26	
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15	
LP PINE		73.9	17.0	26	31	36				
TOTAL		73.9	17.0	26	31	36	230 57		26	
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15	
LP PINE		73.0	16.7	19	23	26				
TOTAL		73.0	16.7	19	23	26	224 56		25	
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15	
LP PINE		74.5	17.1	1,682	2,029	2,376				
TOTAL		74.5	17.1	1,682	2,029	2,376	234 58		26	
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	
LP PINE		72.5	16.6	404	484	565				
TOTAL		72.5	16.6	404	484	565	221 55		25	

Cruise Map of 341-14-76 Red Tail Down

Area 1:

T 24S, R 8E, N $\frac{1}{2}$ NW $\frac{1}{4}$ and N $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 17, W.M., Klamath County, OR.

Area 2:

T 24S, R 8E, NE $\frac{1}{4}$ of Section 27, W.M., Klamath County, OR.

Legend



Area 1



Area 2



cruise plots

Public Ownership



ODF



USFS

1:24,000



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